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Elite rationalities and curricular form: “Meritorious” class reproduction in the elite thinking curriculum in Singapore

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While much of the critical scholarship around elite schooling has focused on the students who attend elite institutions, their social class locations, privileged habituses and cultural capital, this paper foregrounds curricular form itself as a central mechanism in the (re)production of elites. Using Basil Bernstein’s conceptual framework of pedagogic codes, this paper depicts how one of the most high-status forms of school knowledge — critical thinking — is taught in both an elite as well as a mainstream secondary school in Singapore. It argues that even as, or more accurately, precisely because the Singapore Ministry of Education emphasizes the teaching of critical thinking in all schools and to all students, how such knowledge is presented and performed in the school curriculum becomes crucial in differentiating elites from mainstream students. Findings suggest that whereas the pedagogic codes in the mainstream school remain oriented towards an instrumental rationality and the fulfillment of external and profane market exigencies, in the elite school they invoke a rationality that is inward-looking, personalized and that encourages the development of narcissistic, sacred identities. This paper concludes by considering how curricular form itself functions as a non-neutral mechanism for the transmission of educational knowledge, and the ways in which, in Singapore’s highly stratified society where meritocracy functions as a key principle of governance, the elite identities that accrue from such a curricular form further entrench the political legitimacy of a “meritorious” class.

Keywords: elite schooling; curriculum; cultural reproduction; knowledge; Basil Bernstein; Singapore

Think of a carrier wave. One can distinguish between the carrier and what is carried. What is carried depends upon the fundamental properties of the wave. Think of a hi-fi. When the tuner is activated what is heard is a function of the system carrying the signal; the system carrying the signal has already regulated the signal. What of pedagogic communication? We know what it relays, but what is the relay? We know what it carries, but what is the structure that allows, enables it to be carried?

(Bernstein, 1990, p. 169)

By focusing on the students who attend elite institutions, their social class locations, privileged habituses and forms of cultural capital, much of the critical work around elite schooling has sought to demystify the relationships of power relayed through these institutions and their selective traditions (Bourdieu, 1996; Khan, 2011; Maxwell & Aggleton, 2013). In these cases the “what” of what is reproduced in the curriculum is given special attention; analyses powerfully document not only how the knowledge, talk, values and codes of conduct that go on in these schools reflect

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the commitments of dominant groups, but also how the cultural practices of dominated groups are systematically misrepresented and distorted as having lesser value. For example, a number of highly detailed ethnographic research have illustrated how particular elite schools engage in contemporary class-making (Gaztambide-Fernández, 2009; Gaztambide-Fernández & Howard, 2010; Howard, 2008; Maxwell & Maxwell, 1995) and how elite students themselves make sense of their own class privileges (Howard, 2010; Koh, 2014). Other accounts have focused on the intersectionality of gender and race, examining how cultural constructions of femininity have shaped the (re)production of privilege through a gendered (and raced) habitus (Fahey, 2014; Forbes & Lingard, 2013; Epstein, 2014). Still other studies have taken on a more global analytic by problematizing the role of elite schools under globalizing circumstances and burgeoning transnational fields of power (McCarthy & Kenway, 2014; Ye & Nylander, 2015).

However, while these studies have generated a wealth of insights into the ways in which the curriculum thus serves as a relay for existing patterns of dominance — class, race, gender, etc. — as Bernstein reminds us in the above passage, we nevertheless know very little about the relay itself which makes the relaying at all possible. We know very little about how, in these institutions, the forms in which the curriculum (and its subjects) has been put together, the rules of its construction, circulation, transmission and acquisition themselves produce in students particular identities and orientations to knowledge. If among the goals of critical curriculum work is that of interrupting dominance (Apple, 2001/2006), attention to these issues cannot be an afterthought. What need to be taken seriously are both the curriculum’s “relations to” external power structures as well as its constitutive “relations within” — or, in Apple’s (2002) words, not just its “inside-to-outside” relationships but also its “outside-to-inside” ones.

In this paper, we foreground curricular form itself as the central mechanism in the production of elites. Using Bernstein’s (1977, 1990) conceptual framework of pedagogic codes, we depict how one of the most high-status forms of school knowledge — critical thinking (Anyon, 1981, Oakes, 1985) — is taught in both an elite and a mainstream secondary school in Singapore. The context of Singapore lends itself particularly well to the endeavor. Because of an exceptionally strong state presence in education, all public schools follow closely the same national curriculum. In recent years, as part of the state’s strategic efforts at integrating its workforce into the transnational neoliberal market, this national curriculum has increasingly emphasized the teaching of critical thinking (Koh, 2002). Yet even as, or more accurately, precisely because critical thinking is taught in all schools and to all students, how such knowledge is communicated and performed in the respective schools’ curricula becomes especially crucial in differentiating elites from the majority mainstream students. Such a comparative analysis of two very different types of institutions and their curricula not only provides a vantage point from which to consider differences in the structuring and transmission of knowledge. Methodologically, it also complements much of the literature on elite schooling cited earlier which, while offering powerful insights, has thus far been predominantly situated within single-site ethnographic studies of elite institutions.

As our findings suggest, and we show in the subsequent sections, while the teaching of critical thinking in the mainstream school involves pedagogic codes that are weakly classified and strongly framed and directed at the creation of knowledge workers for the knowledge economy, in the elite school critical thinking is delivered through distinctly different principles. There critical thinking is strongly classified and weakly framed instead, revolving around philosophical discussions that seek to develop in students
intellectual autonomy and the deep dispositions of inquiry and exploration. We explore these differences by drawing upon Bernstein’s discussion of the identities and social relations constructed through the categories of sacred and profane knowledge — the former driven by an appreciation of the “otherness” of knowledge, the latter predicated on its “property” aspect. We argue that instead of an instrumental rationality that is oriented towards the fulfillment of external market exigencies, the elite thinking curriculum is underpinned by a rationality that is inward-looking, personalized, and that encourages the development of narcissistic identities. This paper concludes by considering both how curricular form itself functions as a non-neutral mechanism for the transmission of educational knowledge, and the ways in which, in Singapore’s highly stratified society where meritocracy functions as a key principle of governance, the elite identities that accrue from such a curricular form further entrench the political legitimacy of a “meritorious” class.

Elitism and Stratification in a “Meritocratic” Education System

International observers of Singapore’s education system would be familiar with the young nation’s sterling performance on a range of measures of student achievement. As data published from a number of international comparisons show, over the last two decades students in Singapore have consistently outperformed their overseas counterparts in such areas as literacy, numeracy and problem-solving. However, while accurate to a point, these reports tend also to give the illusion of a high degree of uniformity of achievement across all its students (see, for example, Tan, 2011). They gloss over the deep divisions and inequalities that exist in the system and that are in fact sustained by the state’s meritocratic ideology. This section recovers these eclipsed dimensions. In focusing on the ideological commitments of the state, we provide an account fundamentally attuned to the social order through which different forms of knowledge and power are distributed.

Since its inception as a nation-state in 1965, meritocracy has remained a key principle of governance and educational distribution in Singapore (Lee, 2000; Mauzy & Milne, 2002). Through a highly competitive education system culminating in “bonded” government scholarships, top positions in the civil service administration and political leadership are staffed by individuals with demonstrated track records of merit — often taken as the product of both talent and effort. While the official rhetoric frequently appeals to meritocracy’s egalitarian dimensions — namely, the principle of non-discrimination — critics have argued that in practice meritocracy has functioned as an ideology of inequality, historically legitimizing a highly stratified social order anchored in elite authoritarian rule (Barr & Skrbić, 2008; Chua, 1995; Lim, 2013; Tan, 2008).

These criticisms are borne out most evidently in the workings of the education system and the curriculum. Addressing school principals in 1966, the founding prime minister Lee Kuan Yew (1966, pp. 10–12) asserted that the education system needs to produce a “pyramidal structure” consisting of elites “who are to lead and give the people the inspiration and the drive to make [society] succeed;” a middle strata to “help the elite carry out [their] ideas, thinking and planning;” and a broad mass “imbued not only with self but also social discipline, so that they can respect their community and do not spit all over the place.” These deep divisions endure today with the national curriculum continuing to establish distinct pedagogic identities and competencies for different groups of students. In many instances these are stated more than a little explicitly in official documents. One of these records, for example, distinguishes between potential leaders and other
postsecondary students: the former are to be inculcated with “creative and imaginative capacities” to “forge breakthroughs in the knowledge-based economy,” while the latter are to be “willing to strive, take pride in work, [and] value working with others” (Ministry of Education, 1997, p. 2; see also Ho, Alviar-Martin, Sim, & Yap, 2011).

Thus, even as all public schools are closely regulated, funded and administered by the Ministry of Education (MOE) through its network of school superintendents, principals, policy directives and curriculum standards, the system remains highly variegated and demonstrates a pervasive elitist bent. Beginning at fourth grade, for example, students are tracked into different ability groups; while the academically weakest students are offered only “foundation-level” subjects, the top 1% of each cohort is enrolled into a special and separate “gifted” track that emphasizes “intellectual rigour, humane values, creativity [and] responsible leadership and service to country and society” (Ministry of Education, 2011a). This differentiation is elaborated upon at the secondary level, where most mainstream — as opposed to elite — schools offer three distinct academic tracks: a four year Express course culminating in the General Certificate of Education Ordinary Level (GCE “O” Level); a four year Normal (Academic) course leading to the General Certificate of Education Normal Level (GCE “N” Level) in which students who perform well may eventually progress to the GCE “O” Level; and a four year Normal (Technical) course that carries a significantly heavier emphasis on “technical” and “practical” skills.

Yet the stratification extends beyond curricular tracks. Despite the MOE emphatically insisting that all its schools are “good schools,” it remains that a select number of schools are strategically positioned as elite or “branded.” A number of reports have cautiously noted that as it is the case elsewhere, elite schools in Singapore cater largely to the children of those who already have high stocks of economic, social and cultural capital (see, for example Kwek, 2007; Ng, 2014; Tan, 1993). But as Koh (2014) reminds us, it is important to point out that the notion of elite here extends beyond the Marxist definition of the ownership of capital, material interests and wealth (Wright, 2008); it also and more crucially involves the Weberian idea of a status group membership defined and demonstrated by “symbolic materials and subjective dispositions” (Gaztambide-Fernández, 2009, p. 11).

These dynamics would appear well at work among Singapore elite schools. The greater financial resources these schools enjoy and the relative curricular autonomy they are accorded as “independent schools” (see later discussion) allow them to engage in the school-based development of niche programs aimed at heightening their own and their students’ social status. For example, many of these schools offer six-year “Integrated Programmes” that allow their students who are “clearly university-bound” to bypass the standard GCE O Level examinations and to proceed directly to the Advanced Level (“A” Level) examinations at the end of high school — a move designed to “stretch pupils and provide greater breadth in the academic and non-academic curriculum” (Ministry of Education, 2011b). Research apprenticeships with local universities, overseas immersion programs with internationally renowned schools, student sabbaticals, leadership courses, internships with industry leaders, and similar things are also abundant. And, not surprisingly, as many of these institutions attempt to control their own social networks, they have also provided preferential admission for students from their feeder schools, effectively making it more difficult for students from mainstream schools to gain a place of study. Such differences in the resources schools have, the academic tracks they offer, the students they cater too, etc., are hardly inconsequential to the differing ways in which national curriculum policies are interpreted and internalized by schools (Apple, 1993/2014; Ball, 2003).

It is, then, against the backdrop of such a differentiated education system that we need to problematize the MOE’s seemingly univocal emphasis on the teaching of critical
thinking for all schools and for all students. In recent years, and as part of what the state considers to be strategic directions at preparing its citizens for the challenges of the 21st century, the curricular discourse of critical thinking has assumed center stage. Elaborating on its importance, the Education Minister (Heng, 2011) pointed out that:

[a]s mechanistic jobs will be increasingly offshored or relegated to machines, the knowledge worker of the future will have to compete on higher levels of critical thinking, synthesis and creativity. ... Students will need to be discerning, to be able to judge the reliability and accuracy of the information they access. They will need to be able to make sense of the information, to synthesise it and to communicate purposefully and meaningfully.

In this new “semitic economy” in which a considerable share of productive work and consumption is dependent on linguistic and communicative competence, information and capital flows, and engagement with new media and technologies (Luke, 2003), these new orientations constitute the Singapore state’s attempt at “retooling the productive capacity of the system” (Gopinathan, 2007, p. 59). Yet, as the foregoing discussion suggests, this is a system that is fundamentally stratified. The fact that the MOE plays an enlarged role in the provision of subject syllabi and curricular guidelines does not prevent different schools from taking up a variety of approaches in the teaching of any one subject — especially, and in the case of critical thinking, one that does not come under the purview of any academic discipline or examination offering. Indeed, given that critical thinking has traditionally been classified as “high-status” knowledge — knowledge that is often held up as integral to professional and managerial “expertise” (Anyon, 1981; Braverman, 1974; Oakes, 1985) — we might well expect its implementation across different schools and for different groups of students to be anything but uniform.

This raises a plethora of issues relating to how the nature of thinking and rationality is differentiated between elites and non-elites, and the covert processes through which these are transmitted. What does critical thinking instruction look like in the classrooms of elite and mainstream students? How do they differ and what orientations to/constraints on knowledge and meanings does each involve? What social relations and pedagogic identities are prescribed by these transmission models and how do they communicate particular visions of social order? How is this differentiation specified through the school curriculum and regulated in classroom pedagogic interaction?

These questions, to be sure, take seriously Bernstein’s and other critical curriculum scholars’ claim that “the manner of [a subject’s] transmission and acquisition socializes the [individual] into [its] contextual usages” (Bernstein, 1977, p. 147; see also Apple, 1979/2004). They require that critical examinations of cultural reproduction focus not just on the substance of what is relayed/reproduced but also, and more fundamentally, on the constitutive properties of the relay itself — the organization of the curriculum and the modes of pedagogic interaction (Apple, 2012). Before moving on to present the very divergent approaches to critical thinking in two schools — the mainstream Valley Point Secondary and the elite Queen’s High — the next section introduces a number of theoretical concepts guiding the analysis.

### Codes, Competences and the Structuring of School Knowledge

Studies in the sociology of the curriculum view educational knowledge as the most important determinant of how “[t]he language of society becomes the language of the individual through the experience of schooling” (MacDonald, 1977, p. 14; see also Weis,
McCarthy, & Dimitriadis, 2006; Young, 1971). One of the founding figures in this tradition is Basil Bernstein, whose work since the 1970s has systematically sought to depict the principles upon which such knowledge is structured. Referring to these principles as “the intrinsic grammar of pedagogic discourse” (Bernstein, 1990, p. 180), Bernstein’s career revolved around the questions of how the curriculum and its subjects have been put together, the rules of its construction, circulation, transmission and acquisition, and how it is to be related to and represented vis a vis other social and political discourses. For him it is precisely this focus on the form of the curriculum — rather than its ideological content — that would allow critical scholarship to understand how individuals’ cognitive orientations, dispositions, identities and practices are in fact differentially positioned, and how and why social location intervenes in constraining what is learnt and by whom.

To provide a more vivid illustration of curricular form and to see how their differences might in turn be analyzed, Bernstein introduces the concept of pedagogic codes — “regulative principle[s], tacitly acquired, which select and integrate relevant meanings, forms of their realization, [and] evoking contexts” (Bernstein, 1990, p. 14). Central to codes are the analytic concepts of classification and frame. Classification refers to the construction and maintenance of boundary relations between categories such as, for example, discourses of school knowledge (physics, social studies, mathematics, etc.). When classification is strong, discourses are well insulated by strong boundaries and each develops specialized internal rules. When classification is weak, there is reduced insulation between contents, boundaries become blurred, and a discourse becomes less specialized.

While classification refers to the boundary strength between categories of content, the concept of frame identifies the boundary strength between what may or may not be transmitted in a given context. In the pedagogic contexts of schools and classrooms, this involves a number of elements: the degree of control teachers and pupils possess over the selection (the material that is taught or communicated), sequence (what comes first, second, etc.), pacing (the rate of expected acquisition) and criteria (what constitutes a valid realization) of the knowledge transmitted and received. Strong frames accord the transmitter more explicit control over the communication; with weak frames the acquirer has more apparent control.7

Thus understood, curricular form involves the implicit rules for both the organization of knowledge (classification) as well as how that organization is communicated to acquirers in pedagogic interaction (frames). Bernstein points out that the constituent classification and framing values of these pedagogic codes can vary independently of each other. Additionally, it is also possible for both weak classification and strong frames and strong classification and weak frames to operate simultaneously within the same education system or even within the same school. In all these cases the crucial question is “who receives which code, at what age, and at what educational level” (MacDonald, 1977, p. 27). There is then, to be sure, a realism to Bernstein’s abstraction. Curricular form not only depicts at the societal level the extant set of power relations and ideologies; at the level of the acquirer it also indexes the array of legitimate competencies and pedagogic identities available.

This last is important. For Bernstein identity has to do with the ways in which order (and sometimes disorder) internal to the individual relates to and results from external orderings (Beck, 2002) — such as the symbolic nature of curriculum knowledge and how that knowledge is presented and acquired (Bernstein, 1999a). Thus he refers to pedagogic identity as the “subjective consequences of pedagogic discursive specialization” (Bernstein, 1999b, p. 270). In developing more adequate theories of cultural reproduction,
this translation between “macro/external” and “micro/internal” concepts is essential to understanding how power relations work through the curriculum to produce particular subjectivities (Ball, 1994, 2013). As Bernstein insists, boundaries — or relations of relevance — in the structuring and presentation of curricular knowledge are emblematic of particular visions of social order, particular identities and practices that are acceptable (or not) to dominant social relations, and particular agents who work (both intentionally and unintentionally) at maintaining and legitimizing all this.

As disclosure models (see e.g., Ramsey, 1964) the above constructs reveal how power relations are regulated and transmitted through the work of schools and the curriculum. As we shall see in the next section, they are not only useful in understanding how critical thinking is differentially recontextualized in Singapore schools in ways aligned to the state’s meritocratic ideology; they are also indispensable to efforts at uncovering the often under-examined ways through which students who receive these competencies become socialized into a set of official pedagogic identities.

Research Methodology

This research reports from a larger set of data collected over the months of June—September 2011 on how critical thinking is taught and conceptualized in Singapore schools. Following what Creswell (2007, p. 100) terms “purposeful maximal sampling,” two contrasting schools were selected to demonstrate varying perspectives on the phenomenon under study. Based on information publicly provided by the schools on their websites (vision and mission statements, principals’ messages, write-ups of curriculum programs, etc.), ten mainstream schools and four elite schools that had explicitly professed their commitment to the teaching of critical thinking were initially shortlisted. The two that were eventually selected were ones that expressed interest in and were available to participate in the research.

At both schools the data collected include interviews with teachers, classroom observations of critical thinking lessons, and curriculum documents (schemes of work, unit and lesson plans, student assignment handouts, etc.). A total of seven teachers participated in the research — four at the mainstream Valley Point Secondary, and three at the elite Queen’s High. The school leaders at both schools selected the participants, bearing in mind the research condition that these should be teachers engaged in the design and teaching of critical thinking. It is worth pointing out that because schools in Singapore are largely bureaucratically organized with relevant chains of command between teachers, heads of department and the senior leadership, and also because the researcher often lies outside this hierarchical structure, it would not have been appropriate for the researchers to directly solicit participants.

For each teacher we observed two or three lessons (each lasting 45 minutes to an hour) that carried an explicit focus on critical thinking instruction. Because we wanted to reflect the already present emphases and directions in how critical thinking was taught in the schools, these lessons were selected and designed by the teachers themselves and constituted part of their departments’ established curriculum plans. Semi-structured interviews were conducted straight after the lesson observations. The interviews provided the opportunity to discuss aspects of the lessons observed, and to also understand how the design of these lessons was shaped by the teachers’ and their academic departments’ assumptions of what constituted critical thinking. Because of the relatively small number of participants in the study, we were able to conduct at least two interviews with each teacher, each lasting 45—60 minutes.
Profane Knowledge and Instrumental Rationality

Before developing an account of how critical thinking is taught in Valley Point Secondary, a brief characterization of the school’s background and its “mainstream” affiliations is necessary. Like three-quarters of all secondary schools (grades 7 through 10/11) in Singapore, quotidian decisions at Valley Point Secondary involving the length of the school day, the number of students enrolled in each cohort, the academic subjects offered and the goals/directions of the school, etc. all require consultation with the school district’s superintendent. His or her assessment of these matters in turn takes into account the needs and emphases of other schools in the area as well as the MOE’s policies. The teachers at the school are also centrally allocated by the MOE. Typical of most mainstream schools, Valley Point Secondary offers three academic tracks — Express, Normal (Academic) and Normal (Technical) — varying in their emphasis on academic or vocational skills. Indeed, the teachers there commonly refer to their school as a “neighborhood school” — indicating that their students are drawn from the immediate neighborhood. In the case of Valley Point, this is an area that has long been characterized by its largely working class residents. Yet perhaps bearing the strongest justification for the mainstream status of the school is the fact that the content and structure of its curriculum closely mirrors the national examinations that the great majority of secondary schools partake in. Detailed syllabi for each subject mapping out specific learning outcomes for the grade levels and academic tracks are provided by the MOE. At the level of schools, these translate into a close-knit framework of themes, units of work and both formal and informal assessments. 11

Given these parameters, Valley Point Secondary has sought to “infuse” the teaching of critical thinking across each of its existing curricular subjects. All the teachers from the various academic departments professed to have had, in one way or another, incorporated critical thinking skills into their units of work. In the language of Bernstein’s codes, the infusion approach adopted here realizes (by definition) a weak classification of critical thinking. This seemingly wide focus, however, is underpinned by a narrow instrumental rationality. From the classroom lessons it became quite clear that the teaching of critical thinking draws heavily upon a set of subject-specific content knowledge (memorization of formulas, technical details, historical facts, etc.). In each case the ubiquitous emphasis is on critical thinking as a technical skill that students “switch” to in order to solve clearly delineated problems.

Consider, for example, the exceptionally strong framing of critical thinking in one of the chemistry lessons where the teacher retains almost exclusive control over the pedagogic interaction. In this class, getting students to think critically involved getting them to, in the teacher’s words, “hypothesize the relationship between two reagents and their precipitate and solution.” In a previous lesson students had conducted a series of investigations combining different salt solutions (silver nitrate and sodium chloride) and had observed and recorded the word equations for the subsequent precipitates and solutions formed (sodium nitrate and silver chloride). The present task required proposing a general formula of the form “AB + CD → AD + CB” to show how a precipitate could be obtained. Critical thinking in this case thus first demands the recapitulation of a corpus of highly specific subject content, and demonstrates a particularly narrow application. But not only was the context strongly bounded, the answer the teacher had in mind was also highly specific. As the teacher put it in quite unambiguous terms,
Use the concept of ABCD ok? Represent the cation and the anion from the salt solutions using [the letters] ABCD. AB plus CD gives you AD plus CB. So you should have: soluble salt AB plus soluble salt CD becomes soluble salt AD plus insoluble salt CB. This should be your final scientific concept that you are proposing.

Literally, then, there were no two ways about it. Throughout the lesson the teacher closely regulated the pedagogic interaction, prescribing and controlling which meanings could be put together, the ways and the order in which they could be done so, and which forms of communication would constitute legitimate realizations of critical thought.

Before it may be pointed out that the nature of scientific inquiry and its methodologies might preclude a weaker pedagogic framing, let us turn to a social studies lesson. At the outset an instrumental understanding of critical thinking is clearly signaled. In introducing the focus of the day’s lesson, the teacher explicitly connects critical thinking to the ability to perform well on one of the core components of the national social studies examination — analyzing and evaluating the reliability of sources. Students were given five sources, each accounting for the extent to which religious differences between Catholics and Protestants in Northern Ireland were the cause of the conflict there. The students were subsequently required to answer a series of questions comparing and analyzing each source in terms of its reliability and evidential strength. Not unlike the previous example, the reliance on an explicit and rigidly sequenced body of prior knowledge is clear, and serves to demarcate the boundaries of legitimate critical thought. Being able to focus on the issue(s) presupposes familiarity with, amongst other things, the national relations between the United Kingdom and Northern Ireland; the religious and ethnic composition of Northern Ireland; and the distinctions between Protestantism and Catholicism within the larger Christian religion. This strong pedagogic framing is also evident in the criteria students were presented with as valid realizations of critical thought. The teacher was more than a little precise here, reminding them that “if the [question] says ‘how similar?’, definitely the examiners would have worked out the answer. You have to find it.” At times during the lesson, he even dictated—as the class scrambled to copy out—the exact manner in which their responses are to be worded.

Similar framing principles structure the mathematics and language lessons observed at Valley Point Secondary. The teacher retains dominant control over the selection of material to be thought critically about, turning almost exclusively to considerations of examination standards and syllabus prescriptions. All lessons also involve a highly ordered sequence of knowledge, as teachers sharply distinguish between “lower order” recall knowledge and “higher-order” (really “higher-status”) critical thinking, and require students to be competent in the former before moving on to the latter. In terms of the pacing of knowledge, the exigencies of critical thinking are explicitly connected to those grounded in tests and examinations, with the former embellished and presented as a way of improving on the latter. Finally, in these lessons the criteria for evaluating students’ critical thinking invariably involve answering a very specific question with an equally specific response (or a very specific way of arriving at that response).

As a result of the “subjective consequences of pedagogic discursive specialization” (Bernstein, 1999, p. 270), these strong frames serve to restrict what students acquire to precisely that which was (allowed to be) transmitted. That is, by thus limiting the space accorded for potential variations in the realization of the pedagogic text, students are led to see that what critical thinking amounts to in the classroom depends on what that subject is or what the teacher demands of it. There is a certain paradox inherent in this: while such a curriculum putatively seeks to develop critical thinking in its students, the strong
pedagogic framing simultaneously establishes deep boundaries between the text and the acquirer. But it is not just the pedagogic code’s strong frames that function as a regulator of consciousness. Because of its weak structural classification through the infusion approach, the various academic subjects utilize in similar ways an understanding of critical thinking as synonymous with almost anything that constitutes higher-order thinking, the solving of “difficult” questions, etc. There is therefore very little specialization of the internal rules of critical thought, and even less in the way of differentiating it as an autonomous discourse separate from the academic content that it is applied to in classrooms.

Far from approximating the dispositions of open-ended discursive inquiry, then, critical thinking as it is recontextualized in Singapore’s mainstream schools continues to take aim at answering the knowledge economy’s call for knowledge workers skilled and disciplined in what Harvey (2005) calls “technologies of information processing.” To the extent that such forms of thinking are prized in the marketplace, workers will need to be outwardly responsive to whatever material they may be asked to think about (Beck, 2002). The identities and competencies sought after here are thus ones that are closely intertwined with the potential careers of the students and what those careers require. Driven by an instrumental rationality, critical thinking as what was once earmarked as high-status knowledge becomes projected as a practice in specific task-based contexts, takes on a profane “consumable” aspect, and is valorized only insofar as it produces an extrinsic exchange value (Bernstein, 1990).

Sacred Knowledge and Elite Dispositions

Such an understanding of critical thinking cannot be more different from what the subject stands for at the elite Queen’s High. Occupying a sprawling campus, the school is stocked with an impressive Olympic-sized swimming pool, tennis courts, a performing arts center and, not to say the least, air-conditioned classrooms (almost a luxury given its high operating cost in a hot and humid climate). That the school motto reads in Latin is itself evocative of the erudition it conserves. Indeed, the school enjoys a long and illustrious history of counting as its alumni many of the nation’s leaders in the fields of government, politics, business, culture, etc. Wandering through the campus and finding the names and biographical profiles of these public figures on murals throughout the school walls, it is not difficult to see how present students are ingrained with a sense of the grandiose possibilities that await their futures.

The school’s academic records are, of course, a mark of distinction; many of its graduates are winners of prestigious post-secondary scholarships (often awarded on the basis of “merit”), and go on to enroll into the most acclaimed universities abroad. Not surprisingly, gaining admission into Queen’s High remains exceedingly competitive and subject to a highly selective and rigorous process. In this respect (of admissions), as with other areas of school management, teacher hiring, finance and curriculum design, Queen’s High’s status as an independent school accords it relatively greater autonomy than its mainstream counterparts. Rather than being directly accountable to MOE superintendents, each independent school is run by a governing board (usually composed of high profile alumni). The additional flexibility afforded in these areas readily translates into a plethora of extra- and co-curricular activities focused on harnessing both academic excellence and leadership opportunities for its students. Thus, for example, while the syllabi for the various academic subjects adhere to the guidelines laid out by the MOE — since, after all, its students eventually go on to sit for the national examinations — the school
also offers numerous enrichment and research programs that run beyond the content conventionally covered at these grade levels.

An example of this is the school’s four-year philosophy program that all students go through. Charged exclusively with the development of students’ critical thinking, this involves both the more abstract logic classes as well as semester-long modules on issues in jurisprudence, ethics and the philosophy of science. Yet it needs to be pointed out that the program’s focus is decidedly not on learning “what philosophers say,” but on immersing students in what it deems to be the philosophical process of inquiry. At the heart of this immersion approach and as the program explicitly identifies is a set of nine epistemological standards that students are gradually but continuously inducted into over the years – clarity, precision, accuracy, relevance, fairness, breadth, logic, significance and depth. Indeed, given the exclusivity traditionally associated with the academic discipline of philosophy and its status as a non-examinable subject, it is both the logic and consequence of such a strong classification (within philosophy) that the notion of critical thinking takes on a specific tenor and develops a system of highly specialized meanings.

To be sure, in contrast to the weak classification we saw earlier at Valley Point Secondary where critical thinking approximates a catch-all phrase for a range of associated abilities (problem-solving, examination skills, heuristics, etc.), at Queen’s High it is through the insulation from other subjects that critical thinking can become pointedly focused on a *sui generis* set of skills/epistemological standards.

From the perspective of the program, then, students’ experiences with critical thinking are quintessentially encapsulated in its communities of inquiry sessions – seminar-style lessons where students themselves facilitate a discussion on philosophical and current issues. In the language of Bernstein’s codes, the framing of these pedagogic interactions is considerably weaker. The more decentered presence of the teacher is first and foremost spatially represented in the layout of the classroom: in these sessions the class seats in a circular arrangement with the teacher *outside* that circle. As is also typical, weak controls preside over the selection of knowledge, or the material to be thought critically about. Explaining the rationale for the topic of a particular discussion – whether schools have a right to clamp down and discipline students for their online speech and conduct – the teacher pointed out that such decisions are “always contingent on whether [students] like the topic. That’s why we picked social media and online speech. Because it’s directly relevant to them … they are more willing to think about it in greater depth.”

In that class – as in many others that we observed – this estimation of what would appeal to students proved to be exactly correct. From trying to determine what constitutes freedom of speech outside the school context, the authorities and limits that define acceptable conduct, what “clamping down” involves and a common criteria from which to measure the nature of offensive statements, students themselves led the discussion, raising points to clarify, object and support the perspectives that emerged. Throughout the hour long session the teacher made only three (substantive) incursions – twice to rehearse the various strands of the discussion and once to urge students to draw out the significance of the distinctions they were making. Not only, then, was the selection but also the pacing of knowledge weakly framed; as student-facilitated sessions, the often muted presence of the teacher allows students to raise their contributions at their own time and readiness. In this connection it is worth pointing out that in engaging in such interactions students were essentially drawing upon the same set of critical thinking standards taught across other areas of the program. By reinforcing its use over the years and in different contexts, such a recursive – rather than a linear “higher/lower” order – sequencing of knowledge figures not just in providing students the opportunity to gradually take ownership of these
desiderata. At an even deeper level, it also gravitates the curricular emphasis towards the construction of the authoritative identities and dispositions of a thinker.

As another example of such lessons consider the philosophy of science class which was to introduce students to “the methodology that science claims to make use of.” In the PowerPoint slides shared with the researchers, the lesson was to first rehearse the differences between inductive and deductive modes of inference before turning to outline the problem of induction and setting it up as a problem specifically for the nature of scientific inquiry and the validity of its truth claims. All within the same hour, Karl Popper’s ideas on falsificationism and the hypothetico-deductive method would be introduced as one way in which the scientific enterprise might be properly defended, if not re-imagined. One might suppose that in order to cover such a broad spectrum of difficult ideas in a single lesson, the teacher never detracted from the PowerPoint slides, never stopped to check in with students, and never allowed the class to follow up on ideas that they found intriguing or pertinent.

Except that this was not at all the case. Throughout the lesson the teacher allowed — even encouraged — students to select and probe ideas that they felt required further deliberation. For instance, after identifying the problems of scientific methodology — namely, a system of inductive inferences purporting to define regularity — the teacher broached the question of whether and why philosophers and scientists should help science maintain its status as the dominant form of rational inquiry. One student responded in the affirmative because he saw society as being bereft of other reliable methods to make sense of the world. This led to various students voicing out defenses of or arguments against the legitimacy of other academic subjects’ portrayal of reality. Multiple discussions began spreading throughout the class, and the conversation quickly shifted from the teacher’s portrayal of the nature of science and its conceptual problems to students’ demonstrating their ideas and perspectives on the theoretical underpinnings and aspirations of a range of disciplines — history, geography, economics, etc. On another occasion, students took over the teacher’s introduction of falsificationism as scientific method, connecting the idea instead to issues in religion, faith and theology as they contended whether the theory of intelligent design was indeed falsifiable and would therefore be constituted by scientific (rather than religious) principles.

It is important to point out that the lesson was consistently punctuated with many such “digressions,” wholly initiated and sustained by students. Indeed, while the very idea of having a preset amount of content — arranged and ordered into a given number of PowerPoint slides — to deliver would suggest the teacher retaining stringent control over the pacing of the lesson, one nevertheless finds that students were at every turn raising and taking issue with what they saw warranted greater clarification and/or substantiation. Rather than being disruptive, then, these numerous “digressions” really need to be understood as constitutive features of a weak pedagogical framing, one premised on the elicitation of students’ viewpoints and built around the dispositions of inquiry and critique.

This weak pedagogical framing does not mean that teachers have no control over what it is that students are to acquire, or that the criteria for the realization of critical thinking are ultimately left to each student’s fancy. A crucial component of the program involves students’ peer assessment of their classmates’ thinking competencies. To enable students to perform this task they are provided a set of rubrics containing detailed descriptions for each of the nine critical thinking standards. As an example, pertaining to the standard of clarity the descriptors for each level are given in Table 1.

We argue that the sustained use of such rubrics throughout the program constitutes a weak framing of knowledge, particularly in terms of the implicit criteria it establishes for
what counts as critical thinking. To be sure, these criteria are implicit not only because they do not yield to mere “correct” or “incorrect” definitions but instead need to be continually (re-)interpreted and understood in each new context. They are implicit also because, at a deeper and more subjective level, insofar as they depict not just what one should do but how one should think, their successful realization necessitates that they are first internalized by students. Noting the program’s rationale at this tacit level the head of the philosophy department points out that “besides the skills and the attention to rigor of thought, the other thing is to internalize these processes to make them part of [students’] thinking habit.”

Taken collectively, the weak controls on the selection, sequence, pacing and criteria of knowledge view critical thinking or the production of critical thought as something that lies entirely within the student. That is, the valid acquisition of the pedagogic transmission is one that involves just such an inward orientation — the bringing into fruition of competences that acquirers are already thought to possess. In contrast, in expecting students at Valley Point Secondary to be receptive towards whatever it was that they were asked to think critically about, the strong frames there developed deep boundaries between the text and the acquirer. The instrumental nature of critical thinking projected a view of the subject as something that lies beyond the acquirer. Having previously taught in a mainstream school, the head of the philosophy department spoke as if he was also aware of this difference between the inward/sacred and outward/profane orientations of these pedagogic codes:

In some of the more traditional classrooms, [students] do not have the platform to speak and explore their ideas. [Critical thinking] is more about what is the correct answer and therefore getting to the correct answer. And a lot of times it [the correct answer] is actually coming more from the teacher than the students.

Taught this way, under the auspices of a discipline that is itself not part of the national high-stakes examinations, critical thinking at Queen’s High centers less on the mastery of any given academic content than on the seemingly gratuitous development of intellectual autonomy and the dispositions of inquiry, exploration and reflectiveness. Yet it needs to be pointed out that this idea of gratuitousness really bespeaks the workings of a subtle cultural politics. As Bernstein (1977, p. 96) reminds us, a “sense of the sacred, the ‘otherness’ of educational knowledge … does not arise so much out of an ethic of knowledge for its own sake, but is more a function of socialization into subject loyalty.” Together, then, strong classification and weak frames provide powerful conditions that lead students into particular ways of being critical thinkers — they create dedicated identities with no reference other than to their own calling. Knowledge here becomes radically

<table>
<thead>
<tr>
<th>Need to put in more effort!</th>
<th>You’re getting there!</th>
<th>You’ve got it!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas are expressed in an ambiguous manner. Contributed ideas are not cohesive and there is no or a weak attempt at elaboration to clarify points, when requested by the community</td>
<td>Ideas are expressed in a way that may not be clear initially, but effort it made to be understood. Able to respond well to requests for clarification from the community.</td>
<td>Ideas are expressed in a clear manner that can be easily understood. Student is able to provide appropriate elaboration to clarify his point, without the need for prompting by the community.</td>
</tr>
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Table 1. Descriptors for clarity.
separate from its ends, and is “autonomous, self-sealing, and narcissistic” (Bernstein, 2000, p. 55). Historically, elite educational institutions have founded their symbolic capital as “guardians of intrinsic educational values” on precisely the insulation between the “sacred” knowledge they consecrate and the “profanity” of economic rationalities (Beck, 2002, p. 620). Far from simply adding to the pool of knowledge workers then, the critical thinking curriculum at Queen’s High aspires towards the nurturing of students imbued with a sense of noblesse oblige — with elite rationalities commensurate with their future roles as leaders in society.

Conclusion

In seeking to understand the ways in which the social locations of students and the ideological formations of societies intervene in how and what forms of critical thinking are learnt and by whom, apparently superficial differences in nomenclature between the infusion approach at Valley Point Secondary and the immersion approach utilized by Queen’s High’s philosophy program turn out to be far from trivial. While much of the literature on the pedagogy of critical thinking has equivocated between these approaches, as “relays” or ways of organizing how critical thinking is transmitted through the curriculum the two embody distinct pedagogic codes and specify different competencies and pedagogic identities. Externally-oriented towards subject content knowledge and the solution of pre-specified tasks, the former takes as its raison d’être an instrumental rationality and (at best) conduces to the creation of identities we earlier introduced as profane. Through the latter, philosophical content and academic tasks serve only as vehicles for refining the quality of students’ thinking; the epistemic focus and the pedagogic identities it engenders are inward-looking, reflexive and autonomous — attributes traditionally prized in leaders. Differences in curricular form are thus not inconsequential but really fundamental to the power relations maintained by the social distribution of knowledge. They constitute both the revivification and consecration of the social categories elite/mainstream, and the identities sacred/profane.

Yet, and insofar as the very idea (ideal) of thinking connects to wider societal discourses about the rational person and “his” (gendered, raced and classed) position(s) in society (Lim, 2011, 2014), these differences also perform another function: they form the basis for the systemic misrecognition of the power relations in a meritocratic society and the stratification it entails. For just as the exercise of power constantly involves the denial of its own arbitrariness (Bourdieu & Passeron, 1977), what merit identifies is always circuitously fashioned in the image of the “meritorious.” In the curriculum this is often carried through the strong insulation between the fields of symbolic capital and economic production, between “high status knowledge” and “employment skills.” Even then as both schools foregrounded in their classrooms a common vocabulary of thinking (analysis, logic, assumptions, etc.), distinct ideas of rationality were invoked — a distinction that is itself rooted to the basic structural condition, viz. the social locations of elites and knowledge workers. Indeed, the fact that it is at all possible for Queen’s High to classify the teaching of critical thinking under the aegis of a specialized academic program speaks to a whole political economy of schools, teachers and students. Thus, expressly dedicated to the production and reproduction of symbolic capital, elite institutions function to maintain and legitimize the dominance of a class of elites. In addition, as we have demonstrated here, much of such work is carried through the social relations and categories that underpin the form of its curriculum.
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Notes

1. See also Durkheim (1915).
2. See, for example, the results of the Trends in International Mathematics and Science Study and the Progress in International Reading Literacy Study (Mullis, Martin, Foy, & Drucker, 2012; Organisation for Economic Cooperation and Development, 2013).
3. That this is so cannot be further from the truth; recent research has revealed a “long tail” in Singapore’s achievement indices (Teh, 2014).
4. The political rhetoric that accompanied the reduced curriculum was that the weakest students should be served “half a loaf [as] a whole loaf will choke” (Goh, 1979, p. 6).
5. About 60% of each cohort are tracked into the Express route, 30% into the Normal (Academic), and 10% into the Normal (Technical) (Ministry of Education, 2013a).
6. See, for example, Ministry of Education (2013b).
7. Indeed, it is worth stressing “apparent,” because in either case the concept of framing points to and provides an important index of the ever-present regulation of relations within contexts.
8. See Lim (2015) for a detailed discussion of the research methodology and data analysis.
9. Like almost all schools in Singapore, both Valley Point Secondary and Queen’s High are public schools. This means that they are funded by the Singapore government and have their curricula and school activities closely monitored by the MOE. As we discuss later, however, Queen’s High’s special status as an independent school affords it relatively greater autonomy over a range of curricular and administrative matters.
10. Individual teachers in public schools are not in a position to give their consent to participate in research. Any request for research participants would have to be made through the school leaders, who would first decide on whether the school would be involved before deciding which teachers would be selected. Having said this, we are also acutely aware of the possibility that participants selected by their superiors may perceive the research collaboration as being imposed onto them. While there is no obvious way to circumvent this concern, we have sought to alleviate the risks to the participants involved by personally assuring them on the first meeting that their participation is entirely voluntary and that they will not be discriminated against if and when they should decide to opt out of the research. This was communicated both verbally as well as in writing in the participant consent forms, copies of which are retained by the participants themselves.
11. Teachers and schools retain some flexibility and autonomy in decisions over how the contents of the given syllabuses are to be taught, as well as in the design and development of curricular programs that would better enable students to achieve these standards. In saying this, however, it should also be noted that the intensifying focus on test scores brought about by the prevailing conditions of school marketization has greatly limited the ways in which such discretion is exercised by schools (see, for example, Lim & Tan, 1999).
12. As the head of the philosophy department acknowledges, these standards are drawn from the work of Paul and Elder (2005). While there are routine class tests and end-of-year grades are provided for philosophy, the subject does not feature on the national high stakes examinations.
13. This is adapted from Mathew Lipman’s (2003) Philosophy for Children program.
14. At the upper secondary level (grades 9 and 10) this peer assessment is conducted up to four times a year.
15. For an overview of the literature on the infusion and immersion approaches, see Paul (2011); also Ennis (1989), McPeck (1992a, 1992b), Prawat (1991) and Scheffler (1973). In examining curricular form our focus in this article has been on what is sometimes referred to as the circuit of curriculum production (the processes through which the curriculum is conceptualized, developed and subsequently presented in classrooms), rather than its counterpart — that of curriculum...
reception (how students navigate, internalize, or resist the intended curriculum) (see, for example, Apple, 1986). While we have not presented data on the latter, our argument has been that the forms of the curriculum, themselves drawn from the institutional and ideological contexts of the respective schools, have already circumscribed the range of possibilities and positions from which students could relate to the curriculum. Curricular form thus constitutes the terra firma upon which we may begin to approach questions involving students’ reception of such curricula.

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References


