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Context and Embodiment: Investigating the Subject Conceptions and Practice of Pre-service Geography Teachers in Singapore

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Abstract

Research on teachers' subject conceptions of geography has contributed to a better understanding of how teachers perceive geography, and has explicated the relationships between teachers' conceptions and their practice. However, such research tends to neglect two important influences on teachers' subject conceptions and classroom practice: power structures and embodiment. The paper argues for an interrogation of the influence of power structures on the way pre-service secondary geography teachers in Singapore think about the subject, and how they teach it. In addition, this article also articulates the importance of considering the ways in which bodies are implicated in the construction of conceptions of geography, as well as in notions of how to teach it effectively. An analytical framework that incorporates power structures and embodiment into a study of pre-service teachers' subject conceptions and teaching practice is suggested as a means of integrating these two elements within research in this area.

Key words: Subject conceptions, power structures, embodiment, pre-service teachers, Singapore

Unpacking the Gaps in Research

Geography is often perceived as a collection of facts about the world we live in, and teaching and learning geography to the popular mindset has a lot to do with learning where things are and explaining how the physical world
“works.” Even if we were to look beyond this narrow perception of geography to include aspects related to the social, political and economic realms in the definition of the subject, we would still not be appreciating geography fully - understanding the ways in which these facts are organised and integrated is also crucial to understanding geography. Lambert (2004) has argued for the development of a ‘grammar’ of geography that links geography’s facts or ‘vocabulary’ and develops a conceptual understanding of the relationships between spaces and places, and which furthers our understanding of the world in which we live. In the United States, Geography for Life (Geography Education Standards Project, 1994) argues that there exists a “related chain of knowledge that a geographically informed person must appreciate and command” (p. 30).

This “grammar” of geography is arguably an important part of the way teachers think about their subject. Not surprisingly, those in the business of teacher education have taken it upon themselves to study teachers’ subject conceptions (see Wideen, Mayer-Smith, & Moon, 1998; Calderhead, 1996 for reviews of the literature). Within geography education, researchers have studied the subject conceptions of novice geography teachers (Martin, 2005; Corney, 2000; Barratt Hacking, 1996; Leat, 1996; Walford, 1996) and their more experienced counterparts (Brooks, 2007; Jewitt, 1998), and have suggested that these conceptions have important implications for teachers’ practice (Kwan & Chan, 2004; Jewitt, 1998). Research has also demonstrated that the influences on the formation of teachers’ subject conceptions are complex and varied. For example, Brooks (2007), Martin (2005), and Jewitt (1998) noted that past experiences, higher education, government policies, and school cultures can all affect teachers’ subject conceptions to varying extents; what is central very much depends on the teacher in question. Moreover, the extant research has also shown that whatever their conceptions, teachers’ practice may not always match up to them (Brooks, 2007; Martin, 2005; Barratt Hacking, 1996), as teachers may ‘suspend’ their conceptions to deal with the exigencies of coping with day-to-day teaching in the school context (Barratt Hacking, 1996).

It is clear that teachers do not form their subject conceptions in a vacuum, nor do they practise in one. Research needs to look at the contexts in which teachers operate, which constrain or enable them to carry out their work in specific ways. However, these contexts are not neutral or objective spaces, but are themselves implicated within power structures that affect what teachers know and what they do. The philosopher/historian Michel Foucault argued that the educational system is a “political means of maintaining and modifying the appropriateness of discourses with the knowledge and the power that they have” (1991). Foucault was referring to the social world, but his ideas are “essentially controlled and productive.” Subject conceptions are in constant relationship with power, and ultimately affect how they ultimately impact teaching.

Another of Foucault’s (1991) ideas is that there is always someone or one person or one power discipline he or she never accomplishes (Erlandson, 2001). He or she is always visible, he/she never accomplishes, he/she never actually observed. Foucault’s power disciplinaries are refined in prisons, states, homes, and policing the individual.

Given that teachers are subject to scrutiny, and this is how they ‘appear’ into subject conceptions as a disembodied individual, the teacher this way is intimately tied in with the social world. This failure of the system is considered an incubus, for example, and it has guided the research on how it? This article has guided my thinking about teachers in Sir Roger Students.
power that they bring with them” (Foucault, 1971, p. 46). By “discourse” Foucault was referring to the “parameters within which our perceptions of the social world and our actions within it are framed.” These parameters are “essentially produced and sustained by language and knowledge, and controlled and patrolled by ideologies” (Moore, 2004, p. 28). Research into subject conceptions and teachers’ practice tends to ignore this fact that teachers are in constant negotiation (consciously or not) with the power structures that operate in every aspect of their professional and personal lives, and that power ultimately affects what teachers know, what they think they should know, and how they ultimately practise.

Another omission in the literature is the issue that teachers have bodies, and that their bodies matter. Foucault argues that power does not reside with one person or one group of persons. Instead an invisible and diffuse societal power disciplines the body. For example, in Discipline and Punish, Foucault (1991) draws on the metaphor of the Panopticon, a prison where the captive is always visible and the captor never. Hence, from the captive’s perspective there is always the possibility that he/she is being observed. As a consequence, he/she never actually has to be under surveillance; the possibility is enough (Erlandson, 2005). This implies that each individual carefully and anxiously polices his/her own body and bodily actions, unsure of when he/she might be observed. Foucault further argues that the techniques of discipline that were refined in prison, have distributed throughout society, which is constantly policing the individual body, and disciplining it to conform to societal norms.

Given that teachers spend hours in front of their students, subject to their scrutiny, and that many schools have certain minimum requirements regarding teachers’ appearance and conduct, it is surprising that a lot of the research into subject conceptions and teachers’ practice tends to focus on teaching as a disembodied cognitive process. In fact, however, it is often the body of the teacher that is subject to Foucault’s disciplinary surveillance, and which is intimately entwined with discourses that police and evaluate the teacher. This failure of the literature on teachers’ subject conceptions and practice to consider the impact of embodiment on how teachers think about geography, for example, and how they might teach it, therefore needs to be addressed.

How then might one incorporate the notions of power and the body into research on how teachers think about a subject, and how they go about teaching it? This article tackles the issue by presenting an analytical framework that has guided my research into the subject conceptions of pre-service geography teachers in Singapore. In so doing, it also highlights the pertinent literature that has guided the development of this framework and briefly outlines the main
research questions of the study. As this is a work in progress, the results of the study will not be presented here. Instead the focus remains on presenting and elaborating on the analytical framework driving the research.

The Analytical Framework

My research studies a group of pre-service geography teachers in Singapore during their year-long pre-service teacher education course, which includes a 10-week period of teaching practice in a secondary school (Figure 1 provides an illustration of the education system in Singapore).

In the initial stages of the research, data was collected from the entire class of 20 pre-service teachers, but subsequent rounds of data collection focused on a smaller group of six. The purposes of the research were to:

- Unpack, with the respondents, their subject conceptions at the start of the course, and the influences that affected the development of their teaching conceptions.
- Study if and how these conceptions changed during the course of the programme, and the factors that influenced these changes.
- Ascertain the role of subject conceptions in geography education and the implications for pre-service teacher education.

However, understanding the development of subject conceptions and pre-service teachers' experiences of teaching requires that account the twin influences of the influences prior to their practice before and during their practice.

This section presents the influences on the subject conceptions of pre-service geography teachers. It also presents these influences in the operation at various places and at different times in their development (see Figure 2b).

At the heart of influences prior to their teacher education are factors, help to account for how pre-service teachers develop their teaching conceptions. These include, for example, (Brooks, 2007; Hoadley et al., 2004; Jewitt, 1991, 1996) are less contextual factors, helping to account for the somewhat contextual factors in the context that applies to the many factors that are and Jewitt (1996).

Figure 1. The Singapore Education System. (adapted from the Ministry of Education website, www.moe.edu.sg/education)
development of their subject conceptions up to that point in their teaching careers.
• Study if and how these subject conceptions develop over the course of the year, and what influences have contributed to these changes.
• Ascertain the nature of the relationship between respondents’ subject conceptions and their practice as teachers of geography during the 10-week teaching practice, and the factors that have shaped this relationship.

However, unlike previous studies conducted on teachers’ subject conceptions and practice, my study uses an analytical framework that takes into account the twin issues of power and embodiment, and how these have played integral roles in shaping the development of teachers’ subject conceptions before and during the course of the teacher education programme, as well their practice.

Power and Context

This section describes the framework used to unpack the various influences on the subject conceptions and classroom practice of the pre-service geography teachers in the study (Figure 2a). More importantly, the framework presents these influences as intimately bound up with power structures in operation at various levels in Singapore society. (The framework will be further developed later in this article to include the influence of embodiment in Figure 2b.)

At the heart of the framework is the pre-service geography teacher. Influences prior to enrolment in the teacher education programme like the school and academic geography which he/she studied, as well as personal factors, help to shape the pre-service teacher’s conceptions of geography (Brooks, 2007; Martin, 2005; Jewitt, 1998), and continue to do so even as they enter the teaching service. Some researchers have found that subject conceptions have important implications for teachers’ practice (Kwan & Chan, 2004; Jewitt, 1998). Others (Brooks, 2007; Martin, 2005; Barratt Hacking, 1996) are less convinced. These differences in the findings may be attributed to the somewhat different groups of teachers they studied and the differences in context that apply in each case. For example, experience of teaching was one of the many factors that may have affected the research outcomes. Brooks (2007) and Jewitt (1998) studied experienced teachers whereas Martin (2005) and
Barratt Hacking (1996) suggested that the link one, with a teacher's subject conceptions and practice, is mediated by power structures. Power structures are embedded in the social structure of the school and university, as well as the attendant pay and promotion structures, and are affected by the teacher's own personal background and interests, travel and work experiences, and the social structure of the school and university, including the dress code and code of conduct. Power structures shape the teacher's practice, representing the overall influence on subject conceptions and practice.

Another component of teacher education courses is that teachers develop their own ideas and personal beliefs, rather than simply accepting ideas introduced in the classroom. For example, Hollingsworth et al. (1998) argued that teachers' practice, especially in the classroom context, is shaped by the effect that changes in power structures had on how teachers went about their work. Power & Whitty, 1997 (1997) argued that h...
Barratt Hacking (1996) worked with their novice counterparts. It has also been suggested that the link between subject conceptions and practice is a reiterative one, with a teacher's subject conceptions changing with practice over time (Martin, 2004; Corney, 2000). The complexity of this relationship between subject conceptions and classroom practice is represented diagrammatically with the use of dashed, rather than unbroken, arrows in Figure 2a.

Power is an important constant that influenced these school and academic experiences of geography because what pre-service teachers studied while at school and university is not a neutral body of facts and concepts about geography but "shifting amalgamations of subgroups and traditions" (Goodson, 1997, p. 64) that are constantly contested and subject to change. In addition to this, schools and universities are situated within a larger education system, and are affected by the dominant educational policies and approaches towards teaching and assessment that set the environment within which they operate. The teacher's own personal background needs to also be considered vis-à-vis the social structure of society and the position he/she occupies within it, as well as the attendant privileges (like the ability to travel, the development of particular interests, access to information, etc.) of this position. The framework represents the overarching role of power in the analysis diagrammatically by embedding the influences prior to the teacher education course (as well as all other influences) within a larger box labelled "power structures."

Another component that affects teachers' conceptions or practice is the teacher education course. Cheng and Stimpson (2004) found that pre-service teachers develop their practice based on pre-existing images of teaching, and accept ideas introduced in the course only if they are compatible with their own personal beliefs. Similarly, in a review of the research on teacher education, Wideen et al. (1998) found that teacher education did not affect pre service teachers' practice, especially if programme is short term and fragmented, but rather, as Hollingsworth (1989) points out, it is their personal beliefs that serve as a filter through which they understand course content and engage with the classroom context.

Of course, understanding the influences up to the point of teacher education is to gain insight to only half the story. The pre-service teacher's classroom practice is also affected by other factors like the education system, school and subject-level influences, which are in turn caught up within power structures. For example, those writing on educational policy have commented on the effect that changes in the ideologies and practices of the state have had on how teachers conduct themselves in the classroom (Goodson, 2004; Power & Whitty, 1999; Ball, 1991; Lawton, 1989). Calderhead & Shorrock (1997) argued that how teachers think about their roles and responsibilities
vary across different national contexts, while Moore (2004) has argued that shifting educational discourse over the last two decades about what makes a "good teacher" has framed teachers' perceptions and actions.

McLaughlin and Talbert (1990) have pointed to the primacy of the subject in shaping teachers' professional training and identity within a secondary school context. However, as mentioned above, subjects are not neutral bodies of knowledge but are constantly evolving in response to contested paradigmatic shifts. Researchers have also pointed to the split between school and academic geography in the Asia-Pacific, Africa, Western Europe and the Americas (Kent, 2001; Naish, 1990). These shifts and changes, splits and chasms, cannot but have had an effect on what teachers know about geography and how they think the subject, not just through their prior experiences of geography as students, but also during their practice as geography teachers, as perspectives on and definitions of the subject change. Rynne and Lambert (1996) suggest that as geography graduates, teachers have the intellectual tools to understand and analyse new information because of their undergraduate training, while Corney (2000) and Martin (2004) argue that teachers' initial understandings will develop and grow in the process of teaching. Barratt Hacking (1996) argues however, that school geography is so markedly different from their undergraduate experiences of it, that teachers put aside the latter when they teach. Therefore it is obvious that as power shapes the shifting sands on which the definition of geography rests, how geography pre-service teachers in turn conceptualise the subject and teach it provides a rich area for investigation.

Research on school culture stemmed mostly from an interest in school improvement with the realization that improvement went hand in glove with the micropolitics in school, where the negotiation and management of relationships are an inherent part of school culture (Sarason, 1996; Blasé 1991). These relationships could be between teachers and management (Blasé & Anderson, 1995; Blasé, 1991; Ball, 1987), within departments (Johnson, 1990), between teachers and their peers (Hargreaves, 1994; Rosenholtz, 1988), or teachers and their mentors (Calderhead & Shorrock, 1997; Calderhead, 1987). School cultures are also related to organizational structures within the school, like teacher timetables and workloads (Hargreaves, 1994; Calderhead, 1987). Of course schools do not exist in isolation but are affected by external forces like the education system in which they are situated, and their relationships with the community (Corbett, 1991; Louis, 1990). The importance of the school context in affecting teachers' practice has been noted by Calderhead and Shorrock (1997) who argued that pre-service teachers tend to identify with schools more than teacher education institutions, and are strongly motivated to fit into their mentor's way of thinking. Corbett (2004) see teacher education institutions as providing the power within which they can very little said on how pre-service teachers' conceptions, an issue explored in Figure 2a et seq.

There has been little said on how pre-service teachers' thinking rise to the dependent status in the development of these following preservice to an analysis of the context in Singapore. First, the context is not uniform, although it is. The majority of the schools in the following prescription specific references be developed and their strategies and results is. Pre-service undergraduate degree taught by the Ministry of Education (MOE), while the National profession. This
Hernandez and Goodson (2004) and Moore (2004) see teachers as enmeshed within a changing web of relationships and institutional structures that affect how they conduct themselves as teachers, and influence what and how they teach. While the literature focuses on how the power within the school context affects how teachers practise, there is little said on how power in the school context might affect a teacher's subject conceptions, an issue that is addressed in my research.

Figure 2a encapsulates the various influences, just outlined, that affect pre-service teachers' conceptions of geography, and their classroom practice. These influences are related, vary in their effect depending on the teacher in question, fluid, and are infused with and affected by, power. Such an analysis, while useful and derived from various sources in the literature, still needs to be grounded in a specific context, in order for it to generate empirically useful data. The next section provides an overview of some of the salient features of the Singapore context, in which my research is situated.

The Singapore Case

There has been relatively little work has been done on subject conceptions and teachers' thinking in Singapore, and certainly none in geography, giving rise to the dependence on literature gleaned from other contexts to guide the development of my overall research framework. There are, however, a number of features of the Singapore educational context that are important to an analysis of the subject conceptions of pre-service geography teachers in Singapore. Firstly, the Singapore education system is highly centralized and uniform, although there has been effort made in recent years to diversify it. The majority of the pre-service teachers in Singapore would have studied geography in mainstream government secondary schools (see Figure 1) following prescribed national geography syllabi. These subject syllabi make specific reference to the topics that need to be covered, the skills and values to be developed and an approximate time frame in which to do these. Teaching strategies and resources are suggested and assessment objectives, formats and weightages are spelled out.

Pre-service geography teachers would also have largely pursued their undergraduate degree at the National University of Singapore (NUS). The Ministry of Education (MOE) hires and deploys almost all of the teachers, while the National Institute of Education (NIE) prepares them to enter the profession. This apparent uniformity of educational experience suggests that
some of the formative influences on the subject conceptions of pre-service teachers might be very similar. It also suggests that teachers might practise in very similar ways since they are essentially teaching the same prescribed syllabus.

Under this veneer of uniformity however, the Singapore education system is a stratified one. There is streaming and differentiation of students at nearly every level of the education process and the pre-service geography teachers enrolled with the NIE may have had very different experiences of school and tertiary education. Figure 1 illustrates the range of choices available in the Singapore education system (although it should be noted that the Alternative and Integrated Programmes have only come into being in recent years and would not be applicable to the educational backgrounds of the teachers in question). Moreover, geography is only introduced into the school curriculum at secondary school level, and is then a compulsory subject only in the first two years. The experience of geography that pre-service teachers bring with them therefore varies, depending on whether they elected to study the subject beyond the first two years in secondary school, and also at junior college or university levels. The recent diversification of the education system, as well as the broadening of qualifying methods for university admission, may also have repercussions on how teachers teach geography, as the school contexts in which they work vary.

Another feature of the Singapore education system that cannot be ignored is its competitiveness. All secondary schools and junior colleges have been ranked on an annual basis since 1992 and the results are published in the local newspapers. The basis for comparing the schools still remains overwhelmingly focused on academic results (Tan, J., 2005). In fact, other authors have pointed out that despite the apparent emphasis on developing each child to his/her fullest ability espoused by the MOE, “different talents and abilities are still valued differently” (Tan, C., 2005, p. 7). This competition puts pressure on schools and hence, teachers, to focus narrowly on outcomes that are relevant for public ranking, and this is especially the case in Singapore where examinations remain a key determinant of educational and social mobility (Tan, J., 2005). The emphasis on examination results creates intense rivalry between schools, between departments in a school and between teachers. These conditions suggest profound implications for teachers’ practice in the classroom, especially since student performance (in examinations, or sporting and other competitions) is one of the factors by which teachers are ranked relative to their colleagues in the school on an annual basis, with implications for their promotion and pay prospects. Given also that most teachers in Singapore attend to their teaching well in examinations, it follows that the same mould, since

The Singapore education system has various influences on teachers’ academic and conceptions of education, and also sets the background for them as educators. The particularities of the school system and shape the type of teaching they can teach it.

The final strand of research has not been examined in the way teachers have been by researchers in the past. For example, gender, race, and class relationships to academic success (Trauman, 2005) and bell hooks (1994), have been brought to the forefront of the debate about the split between the mind and the body (bell hooks, 1990).

bell hooks (1990) assumes that the split between the mind and the body (bell hooks, 1990) and the threshold was created in ways in which the school created a form of learning. After all
Singapore attended the local school system where they were drilled to perform well in examinations themselves, it may not be surprising if they teach in the same mould, since it is the method they are most familiar with.

The Singapore case, as explicated above, is directly relevant to the various influences depicted in Figure 2a. It not only affects pre-service teachers’ academic and school backgrounds and therefore their experiences and conceptions of school and academic geography and teacher education, it also sets the background against which teachers view and negotiate their roles as educators. The features of the education system outlined above pervade the particularities of the school context in which pre-service teachers are situated, and shape the type of geography they are supposed to teach, and how they teach it.

The Teacher as Embodied

The final strand in this discussion on pre-service teachers’ conceptions and practice is that teachers have bodies that matter. Although subject conceptions research has not addressed the teacher’s body as an important component in the way teachers think about and teach their subjects, other education researchers in the area of critical theory have studied the teacher’s body (for example, gender, race, age, disability) and how bodies are implicated in power relationships to affect how teachers are expected to conduct themselves and negotiate their relationships with others, as well as in their career progression. One of the earlier theorists to highlight the importance of the teacher’s body is bell hooks (1994). As a feminist thinker, she was concerned with the Cartesian split between the mind and body of the teacher.

Training in the philosophical context of western metaphysical dualism, many of us have accepted the notion that there is a split between the body and the mind. Believing this, individuals enter the classroom to teach as though only the mind is present, and not the body (bell hooks, 1994, p. 17).

bell hooks (1994) argues that this is both untenable and unrealistic, as it assumes that the self is “presumably emptied out the moment the (classroom) threshold was crossed” (p. 17). Since then, other writers have examined the ways in which the bodies of teachers are an integral part of teaching and learning. After all, as noted by Freedman and Holmes (2003), we need to
"discard the fiction that the teacher has no body" (p. 7), and acknowledge that "Visible and/or invisible, the body can transform both the teachers' experiences and the classroom dynamics" (p. 7).

In my research, I begin with the assumption that the teacher is inherently an embodied being, and identify the role of the body (see Figure 2b) in every category of influence outlined in the analytical framework presented earlier.

The pre-service teacher remains at the heart of the analysis, but there is a need to recognize that this pre-service teacher is an individual with particular embodied characteristics that have implications for his/her practice within the profession. There is little published research on the relationship between teachers' bodies and teachers' work in Singapore, and the review of literature here draws on work conducted elsewhere in the United Kingdom, the United States, Canada, Australia and New Zealand.

One of the most salient aspects of this embodiment is gender, with gender stereotypes in contemporary developed societies often casting teaching as a feminised profession, especially at primary levels and below, where women's reproductive capacities become entwined with teaching (Drudy, Martin, Woods, & O'Flynn, 2005; Forrester, 2005; Leathwood, 2005). Male teachers therefore remain an anomaly when it comes to teaching young children (Skelton, 2003). Researchers have also noted an inherent tension between women's bodies and their career progression (Boulton & Coldron, 1998; Moreau et al., 2007; Luke, 1998). Such discourses pressure teachers to conform to images of effective teaching that are disembodied, competent, and rational as any focus on the corporeality of female bodies (for example, pregnancy and sexuality) undermines teachers' authority as serious thinkers, especially at higher education (Gerald, 2003; Wallace-Sanders, 2003). Other researchers have also pointed to gendered differences in the expectations of teaching style, with male teachers presumably better able to wield disciplinary power and provide hands-on activities (Martino & Frank, 2006).

Researchers have also approached the embodiment of teachers from the standpoint of race, pointing out the privileging of white attitudes, values and beliefs in education in Anglo-American contexts, with consequences for teachers and students from other races (Solomon et al., 2005; Bariso, 2001; Levine-Rasky, 2000). Scholars looking at school desegregation in the U.S. have argued that race affects teachers' practice and influences their expectations of student achievement and their interactions with them (Simpson & Erickson, 1983; Beady & Hansell, 1981; Byalick & Bersoff, 1974). As Webb (2001) has pointed out, education paradigms that focus on the teacher and teaching as disembodied, cognitive acts do not address the biases, attitudes, and beliefs that teachers might have that are intimately connected to race.

Other aspects of the teacher's body have also been critically explored in recent years, notably in the context (Giffen, Weber and Mitchell, 2005; Hemdl, 2003; McGuire, 1998; Moreau et al., 2007). The literature has also touched upon the shift from overt to covert context (Giffen, Weber and Mitchell, 2005; Hemdl, 2003; McGuire, 1998). Overt context is typically observed when a teacher is the subject of accusations of sexual harassment, as experienced by a number of male teachers. However, more subtle forms of harassment have also touched on covert contexts (Hemdl, 2003; McGuire, 1998).

The literature has also noted how people have of the teacher's body connects him/her to the body connects teachers' experiences and classroom dynamics" (p. 7). The pre-service teacher remains at the heart of the analysis, but there is a need to recognize that this pre-service teacher is an individual with particular embodied characteristics that have implications for his/her practice within the profession. There is little published research on the relationship between teachers' bodies and teachers' work in Singapore, and the review of literature here draws on work conducted elsewhere in the United Kingdom, the United States, Canada, Australia and New Zealand.

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Finally, even when teacher's bodies are not overtly visible, their subject context can still influence the relationship to their subject content. For example, teachers have been critical of the impact of globalization and the shift from geographic to thematic teaching on their students' concern with the environment (Solomon et al., 1999; Rose, 1999).
Other aspects of embodiment in the literature include the sexuality of teachers. Overt signs of sexuality are deemed inappropriate in the educational context (Giffen, 2003; Wallace-Sanders, 2003), which makes unsurprising Weber and Mitchell’s (1996) finding that the most commonly held image of a teacher is that of an ‘old maid’ – conservative and neat. Jones (2004) also observed that teachers police their physical proximity to students for fear of accusations of sexual abuse, a situation that is especially marked in the case of male teachers (Skelton, 2003; Johnson, 1997; Phelan, 1997). Other writers have also touched on issues such as disability and sickness (DiPalma, 2003; Herndl, 2003; Pence, 2003; Smith, 2003) and age (Daly, 2003; George & McGuire, 1998).

The literature has highlighted how the body is implicated in the image that people have of teachers and their conduct, the teacher’s career development and his/her relationships with others as a professional. However, how the body connects with a teacher’s subject conceptions and/or the teaching of that subject has not been discussed. Figure 2b illustrates how this connection might be usefully made. The pre-service teacher in question has corporeal characteristics that affect the influences on his/her subject conceptions prior to teacher education. For example, the body is an integral part of the teacher’s personal background and is implicated in his/her personal relationships, interests, travel and work experiences, which in turn may have affected the way the individual perceives geography. At the same time, as a learner, this individual has experienced school and academic geography, and teacher education, through observing the teaching style and practices of other embodied individuals. The influence of this observation on subject conceptions, and/or teaching practices, would be interesting to unpack. Embodied individuals are also subject to discourses that police both their appearance and conduct as teachers. These discourses can be found at the level of the education system as a whole, as well as the micro-levels within the school.

**Geography and the Body**

Finally, even as we acknowledge teachers’ corporeality and its relation to their subject conceptions and practice, it may be timely to consider Geography’s relationship to the body as well. Feminist and post-colonial scholars have long been critical of geography’s traditional assumptions, with critiques ranging from geography’s masculinist and Eurocentric origins (Rose, 1993), and its concern with the public realm to the exclusion of the private (McDowell, 1999; Rose, 1993). Much of this literature centres on issues related to gender,
sexuality, and race, but also interrogates other aspects of embodiment such as age and disability.

A particularly relevant thread in the discussion on geography's assumptions and paradigms is related to fieldwork, especially within Physical Geography. Bracken and Mawdsley (2004) noted that the "roll call of the early contributors to the discipline is dominated by the intrepid explorer, the surveyor of jungles and mountain ranges and the dedicated colonial officer posted to the far-flung fringes of Empire" (p. 284), and argued that fieldwork has always been "central to the enterprise and imaginary" (p. 280) of geography. Nairn (1998) suggested that these images help to maintain the hyper-masculinity of fieldwork. However, Bracken and Mawdsley (2004) also pointed to the changing nature of fieldwork, and argued that geography need not alienate those who are not male, young or able-bodied.

Related to this, Yeoh, Huang, & Wong (2004) have noted that undergraduate geography at the NUS has traditionally been perceived as a masculinised subject due to its association with fieldwork. However, this has changed since the 1990s because of an increasing emphasis on Human Geography, especially Cultural Geography, in the department, which has led to a growing pool of female geography undergraduates and post-graduate researchers. While one might question the extent to which the rise in female enrolment is directly attributable to the change in the nature of courses offered within the department (as opposed to a rising female undergraduate and post-graduate population in Singapore universities in general), the fact still remains that there has been a shift in research and teaching foci within the department, which might affect the way in which pre-service teachers graduating from the university might view geography. How then does the image of the swashbuckling geographer hold, in the conceptions of pre-service teachers, in a discipline that has evolved to incorporate critical feminist, post-colonial and queer theory? Do pre-service teachers believe that geography (and its attendant fieldwork) is a subject that is by nature a highly 'embodied' one, and would that have any implications for the way they believe it should be taught?

The analytical framework presented here therefore might be viewed as a useful way to introduce two important, but often overlooked, features to the study of geography teachers' subject conceptions and teaching practice. Firstly, it presents the factors that shape teachers' thinking and their work before and during the teacher education course, but explicitly incorporates the overarching influence of power into the equation. Secondly, by systematically acknowledging the various ways through which teachers make meaning of their work, it provides a new way they do, and should, reflect on how they do, and should, do their work.
the various ways in which the body affects a teacher’s conceptions and practice, it provides a new lens through which to view why teachers think and act the way they do, and enriches our understanding of these issues.

Conclusion

Work on teachers’ subject conceptions contributes to a better understanding of how teachers think about their subject, what they think its “vocabulary” and “grammar” (Lambert, 2004) could be and why they think the way they do. Such an understanding helps us to better interrogate the relationships between what teachers think and their practice. However, research in this area tends to neglect the impact of power structures and embodiment on all aspects of teachers’ thinking about geography, and how they teach it. This impoverishes our understanding and needs to be addressed even as we build upon the work already done in this area by conducting research in new contexts and with different groups of teachers.

This paper has suggested how power and embodiment may be incorporated as integral parts of an analytical framework guiding research in the subject conceptions and practice of pre-service teachers in Singapore. It also describes how particular features of the Singapore context (and the power structures underlining these) might affect the ways that teachers think about geography and how they teach it. Finally it also opens up discussion about the relationship between the teacher’s body and the other influences on subject conceptions and practice, and about the relationship between geography as a subject and the body itself.

References


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