‘Our system fits us’: comparing teacher accountability, motivation, and sociocultural context in Finland and Singapore

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ABSTRACT
Every teacher’s classroom practice is embedded in a system of overlapping contexts that interact with their day-to-day decisions. In this paper, I focus on sociocultural context and how it interacts with teachers’ subjective responses to accountability instruments. Drawing on interviews with secondary school teachers in Finland and Singapore – education systems with contrasting but comparably effective approaches to teacher accountability – I find that one way in which sociocultural context interacts with teachers’ experiences of accountability instruments is by influencing the mental models of motivation that shape their responses to these instruments. This finding is relevant to two contentious areas in education policy. First, it suggests that teacher accountability policy is a socioculturally embedded matter, implying a need for caution rather than recommending specific forms of accountability across the board. Second, it adds to the growing body of evidence demonstrating that ‘best practices’ from high-performing education systems are contingent on implementation contexts.

“我们的体制适合我们”：比较芬兰和新加坡的教师问责政策、动机与社会文化环境

摘要
每位教师的课堂实践都根植于一个与他们日常决策相互作用的多重环境系统。在本文中，我关注社会文化环境，以及它如何与教师对问责工具的主观回应相互作用。芬兰与新加坡的教育体制都拥有对教师问责的有效方法，二者不同但具有对比性。通过对两国中学教师的访谈，我发现，社会文化环境与教师对问责工具的体验相互作用的一种方式，是通过影响教师动机的心理模型，塑造他们对这些工具的回应。这一发现与教育政策中两个有争议的领域有关。首先，它表明教师问责政策是一个根植于社会文化的议题，这意味着要审慎而不能一刀切地推荐具体的问责形式。其次，越来越多的证据表明，具有优异表现的教育体制之“最佳实践”取决于实施的背景，本文为这一观点增添佐证。
Introduction

Although teachers practice their craft within localised classroom, their practice is embedded in broader domains and is influenced by factors and trends within these domains. One such trend is the widespread (although not uniform) influence and perceived legitimacy of outcome-based accountability in education (Högberg and Lindgren 2021; Verger and Parcerisa 2017). Another is the increasingly widespread recognition, even in publications focused on international ‘best practices’ in education (e.g. Mourshed, Chijioke, and Barber 2010), that context matters in education policy.

However, this acknowledgement of context does not always manifest in action (Auld and Morris 2016). To give an example from accountability policy, a consistently implemented, ‘best practices’-inspired school quality assurance programme in Madhya Pradesh, India, had no effect on either teacher practice or student outcomes – yet a modified version of this programme is being rolled out nationally because it carries political legitimacy (Muralidharan and Singh 2020). Notably, a key reason for its ineffectiveness was contextual mismatch. Despite extensive piloting of the accountability instruments in local schools, teachers viewed the programme as another administrative box to tick rather than a tool for improving their core work (Muralidharan and Singh 2020; see also Müller and Hernández 2010). This illustrates the risks of addressing just the material and quantifiable aspects of context, without considering those aspects related to perceptions, beliefs, and other sociocultural patterns.

Crossley and Watson (2003) suggest that this relative neglect of context in education policy may be due to inadequate integration in educational research between the policy-oriented strand that often discounts ‘the importance of contextual and cultural factors’ (120) and the theoretically-oriented strand that is often ‘divorced from the real world of educational policy and practice’ (121). Some scholars have integrated these two strands to make the case for incorporating sociocultural context into accountability policy, whether using tools from the theory-oriented strand to argue that current accountability policies emerge from deep political and sociocultural roots (e.g. Hopmann 2008; You 2017), or using datasets from the policy-oriented strand to argue that the results of these international large-scale student assessments that fuel interest in decontextualised ‘best practices’ are themselves contingent on sociocultural factors (e.g. Feniger and Lefstein 2014; Hwa 2021b). In this study, I complement these arguments by looking at the interplay between sociocultural context and teachers’ subjective responses to accountability policy.

To do so, I draw on interviews with secondary school teachers in Finland and Singapore, both of which are lionised as educational ‘reference societies’ (de Roock and Espeña 2018; Takayama, Waldow, and Sung 2013). Beyond their highly successful school systems, Finland and Singapore have distinct sociocultural contexts, which will be discussed below, and contrasting approaches to teacher accountability, which Högberg and Lindgren (2021) would classify as ‘thin’ and ‘thick’ accountability regimes, respectively. In Finland, teachers are not subject to formal appraisals, and formal rewards and punishments are minimal (Sahlberg 2015). In contrast, Singaporean teachers’ work is managed within a national system of tiered performance standards and formal appraisals, with a structured career ladder and sizeable bonuses (Sclafani and Lim 2008).
The question driving this study is: How does sociocultural context affect teachers’ interactions with accountability instruments in Finland and Singapore? Among the range of sociocultural patterns that influence teachers’ subjective choices and actions, I focus on motivation-related patterns because popular arguments for teacher accountability reforms are often linked to motivation. For example, in the McKinsey report How the World’s Most Improved School Systems Keep Getting Better, one of the three ‘intervention clusters’ for moving an education system from ‘poor’ to ‘fair’ performance is ‘Providing scaffolding and motivation for low skill teachers and principals’, which includes giving ‘rewards (monetary and prestige) to schools and teachers who achieve high improvement in student outcomes against targets’ (Mourshed, Chijioke, and Barber 2010, 30). To preview the argument, I find that one way in which sociocultural context affects teachers’ interactions with accountability instruments is by influencing the mental models of motivation that shape their subjective responses to these instruments. One implication of this analysis is that compatibility with sociocultural context is pivotal to effective interactions between teacher accountability instruments and teacher motivation. As a Finnish interview participant said, ‘Our system fits us.’

This is not an argument about unidirectional causality, but rather about interactive embeddedness. Below, I draw on Bronfenbrenner’s (1979) ecological schema to map this embeddedness. Although teachers’ subjective responses are nested within sociocultural contexts, and although this analysis focuses on the influence of the latter on the former, it would be inaccurate to suggest that teachers play no role in shaping the sociocultural landscape (or in informing accountability policy). Over time, teachers’ choices and actions undoubtedly exert a cumulative and collective influence on both of these domains. However, I focus on the influence of sociocultural context on teachers’ subjective responses to accountability instruments because this analysis is situated within a larger body of research calling attention to the importance of context in policy.

Note also that descriptions of ‘sociocultural context in Finland’ and ‘sociocultural context in Singapore’ are not intended as an affirmation of methodological nationalism. Cultural patterns do not divide neatly along national borders, instead showing both within-country variation and cross-border influences (Anderson-Levitt 2012). I focus on national-level culture simply because I was interested in national-level differences in teacher accountability policy and lacked the resources to examine other levels of sociocultural variegation. Additionally, this national-level lens appeared to be meaningful to the teachers I interviewed, with participants speaking of constructs like ‘the Finnish mind’ and ‘a Singapore identity’.

**Literature review**

As noted above, the research question focuses on embeddedness and interactions between teachers’ subjectivity, teacher accountability instruments, and sociocultural contexts. To organise these constructs, I use a version of Bronfenbrenner’s (1979) ecological schema. Besides its analytical utility, I chose this schema because of its apposite origins at the intersection between theory and policy – as a developmental psychologist, Bronfenbrenner was an architect of the US government’s Head Start programme for low-income children (Bronfenbrenner’s 1979).
As shown in Figure 1, I modify the schema to centre on the teacher rather than on the developing child. For simplicity’s sake, I include only the main constructs of interest. Thus, teachers’ subjective responses fall within the microsystem, teacher accountability instruments fall within the exosystem, and sociocultural context falls within the macrosystem. Each construct/level is described further below. (I exclude mesosystems, which comprise interactions between different microsystems, because the analysis involves single microsystem.) This use of Bronfenbrenner’s framework is not intended to be theory-building, not least because I do not engage with the nuances of his theory of human development. Rather, I use it simply to lend some structure to the analysis (For a similar use of Bronfenbrenner’s schema, see Ehren and Baxter 2021.).

Macrosystem: sociocultural context

In Bronfenbrenner’s (1979) schema, macrosystems are ‘consistencies … at the level of the subculture or culture as a whole, along with any belief systems or ideology underlying such consistencies’, such that it appears as though ‘the various settings had been constructed from the same set of blueprints’ (p. 26). Thus, the macrosystem encapsulates what I term sociocultural context, or dominant patterns of ideas and practices in social system that influence people’s interactions with their environments. This definition is intentionally broad to encapsulate any macro-level sociocultural features that interview participants view as salient to teacher accountability. It aligns with arguments from both realist-informed educational research (Maxwell 2012) and cultural psychology (Markus and Kitayama 2010) that culture is situated not in individuals but in systems of interactions between individuals, institutions, and ideas.

One example of the influence of macro-level sociocultural context on teachers’ micro-level practice is the influence of culture on teaching practice, as in Stigler and Hiebert’s
(1999) discussion of ‘cultural scripts’ underlying cross-country differences in classroom practice or in Alexander’s (2001) Culture and Pedagogy. In Finland (Simola et al. 2017, chap. 6) and in Singapore (Heng and Song 2020), scholars have documented instances where sociocultural context hampered policies emphasising individualised/differentiated pedagogy. In this analysis, I focus on consistencies in what I call teachers’ mental models of motivation, described below.

Exosystem: teacher accountability instruments
Bronfenbrenner (1979) defines exosystems as ‘settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person’ (p. 25). In studying teachers and teacher accountability rather than child development, the relevant exosystem-level construct is teacher accountability instruments, which affect and are affected by teachers even though teachers are rarely active participants in their formulation. By teacher accountability instruments, I mean tools, practices, and structures that aim to orient teacher practice toward stakeholder expectations by collecting information about teacher practice and communicating this information to stakeholders, setting standards by which stakeholders judge teacher practice, and allocating consequences based on stakeholders’ judgements of teachers’ practice. This definition draws on Bovens’ (2007) emphasis on the relational nature of accountability (in this case, between teachers and stakeholders, who can include fellow teachers) as well as Romzek and Dubnick’s (1987) argument that managing expectations and standards is central to accountability.

Although recent years have seen substantial cross-country attention to outcomes-based accountability, teacher accountability instruments are also shaped by the country-level macrosystem in which they are embedded. For example, Hopmann (2008) attributes the different emphases of accountability policies in the USA, Nordic countries, Germany, and Austria to ‘deeply engrained ways of understanding the relation between the public and its institutions’ (p. 425). Beyond accountability, comparative studies of the interplay between international policy trends, macrosystemic context, and exosystem-level education policy include analyses of higher education governance in Finland and Sweden (Holmén 2022) and transitions from colonial to post-colonial schooling in Singapore and Cyprus (Klerides 2021).

Besides its interactions with macro-level sociocultural contexts, exosystem-level accountability policy also interacts with teachers’ micro-level choices, actions, and perceptions. Scholars have documented the influence of accountability-related policy on teachers’ conceptions of their professional identity in Singapore (Liew 2012) and the USA (Holloway and Brass 2018), as well as England, France, and Denmark (Osborn 2006). I turn to these micro-level subjectivities next.

Microsystem: teachers’ subjective responses
A microsystem is ‘a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics’ (Bronfenbrenner 1979, 22). Bronfenbrenner thus emphasises not the objective
characteristics of a setting, but rather the subjective experience of the person in question.

Similarly, in the microsystem of a teacher’s responses to accountability instruments, there is a basis in comparative education research for expecting the relationship between accountability instruments and teacher practice to depend on teachers’ subjective perspectives. As Broadfoot and Osborn (1993) argue in their study of teachers in France and England:

All too often … directives are concerned with changing what teachers do without taking any account of how teachers’ thinking might need to change if such changes are to be seen as acceptable and thus become incorporated as part of teachers’ own internal professional goals. (127, emphasis original)

Also, Müller and Hernández’s (2010) study of seven European countries found that teachers were largely sceptical about accountability instruments because these policies generated peripheral paperwork rather than enhancing the classroom teaching that they regarded as their chief responsibility. As Verger and Parcerisa (2017) argue, ‘teachers’ responses to accountability policies should not be taken for granted, but seen as a cornerstone of research about the effects of these policies’ (248).

Teachers’ subjective responses (microsystem) to accountability instruments (formulated in the exosystem) are themselves influenced by sociocultural patterns (macrosystem) – just as culture influences teachers’ pedagogical practice, as noted above. For example, a teacher quality reform in Indonesia included a peer evaluation scheme, but hierarchical sociocultural expectations meant that teachers questioned colleagues’ authority to evaluate their work, believing that such authority should only be held by supervisors or headteachers (Broekman 2016). Similarly, some teachers in India challenged community accountability structures because they expected to be treated as high-status professionals beyond the purview of low-status villagers (Narwana 2015). Mizel’s (2009) study of Israeli Bedouin schooling found that headteachers prioritised reporting students’ behavioural transgressions to the tribal sheikh over reporting on curriculum and lesson planning to the education ministry. Thus, macro-level sociocultural patterns can affect the implementation of exosystem-designed accountability instruments by influencing teachers’ micro-level responses.

**Macro-level consistencies in mental models of micro-level motivation**

One process (among others) through which the macrosystemic sociocultural context may influence teachers’ responses to accountability instruments relates to motivation, which many accountability reforms attempt to raise. For conceptual clarity, I adopt Schunk, Pintrich, and Meece’s (2010) definition of motivation as ‘the process whereby goal-directed activity is instigated and sustained’ (4).

Although the general outlines of major theories of human motivation are commonly regarded to have cross-cultural validity, empirical studies in psychology have found that the factors emphasised in these theories manifest in diverse configurations, interpretations, and narratives across cultural contexts (King and McInerney 2016). For example, Ryan and Deci’s (2000a) self-determination theory proposes that intrinsic motivation is sustained when the actor’s needs for autonomy, a sense of competence, and relatedness
to others are fulfilled. Yet experimental work has found that Anglo-American children had higher intrinsic motivation when they were free to choose their own tasks, whereas Asian-American children had higher intrinsic motivation when the task was ostensibly chosen by their mothers or classmates (Iyengar and Lepper 1999). This implies that conceptions of ‘autonomy’ are contingent on culture. In turn, Vroom’s (1964) expectancy theory centres on three motivational factors: expectancy, the belief that effort will lead to successful performance; instrumentality, the belief that successful performance will lead to desired outcomes; and valence, or the value that the actor expects to gain from these outcomes. Yet experimental work has found that East Asian undergraduates were more likely than their European American counterparts to increase their effort in a mathematics task upon being reminded that mathematics can be instrumental for valued goals (Shechter et al. 2011).

Studies of teachers’ beliefs and motivation also suggest that sociocultural context shapes teachers’ motivation-related beliefs and responses. In a cross-cultural analysis of teacher motivation in Western and Chinese contexts, Ho and Hau (2014) concluded that some motivational processes function similarly across contexts (e.g. the association between high intrinsic motivation and positive teacher practices), whereas other aspects of motivation are culture-dependent (e.g. teachers’ goals and values). Similarly, Hufton, Elliott, and Illushin (2003) found that teachers in the UK, the USA, and Russia differed in their beliefs about some aspects of student motivation, such as the extent to which students should be praised and criticised. More generally, Watt and Richardson (2015) argue for greater cross-fertilisation between research on teacher motivation and teacher beliefs, including sociocultural beliefs.

In analysing the interview data, I found that the influence of sociocultural context on teachers’ subjective responses to accountability instruments could be distinctly traced via teachers’ implicit mental models of motivation (MMM). By MMMs, I mean the configurations of factors that teachers believe will support or inhibit the process by which goal-directed activity is instigated or sustained (drawing on the Schunk et al. 2010 definition of motivation quoted above). I focus on macro-level sociocultural consistencies (Bronfenbrenner 1979) related to motivation. This is not to imply that teachers’ subjective responses to accountability instruments can be reduced to motivation, nor that MMMs are the only relevant macrosystemic influence on such responses. Nonetheless, I emphasise teacher motivation because, from a policy standpoint, many teacher accountability instruments implicitly or explicitly aim to raise or reorient teacher motivation, as noted above. From a conceptual standpoint, motivation relates to goal-directed behaviour – which can be mapped onto to the expectations implicit in accountability instruments.

**Research methods**

To explore the relationship between these constructs, I use semi-structured individual interviews with 12 teachers from 11 secondary schools in Singapore as well as 12 teachers from 10 lower secondary schools in Finland. These levels of schooling were chosen to match the levels of students participating in PISA (age 15) and TIMSS (Grade 8), because I draw on PISA and TIMSS data for a related analysis on teacher accountability, teacher motivation, and sociocultural context (Hwa 2021b). I conducted the interviews in July–August 2018 (Singapore) and September 2018 (Finland).
For teacher-level variation, I spoke with teachers across a range of subjects, teaching experience, management roles, and of personal characteristics such as ethnolinguistic background and gender. For school-level variation, in Singapore, I interviewed teachers from a mix of ‘mainstream’ schools and autonomous/independent schools, which have more administrative flexibility and tend to have higher test scores and greater prestige. In Finland, teachers in the interview sample taught at not only public Finnish-speaking schools, but also private schools and Swedish-speaking schools. Their schools spanned eight municipalities, which mattered because (unlike in Singapore’s centralised school system) educational resources and governance can differ across municipal administrations. Participants were identified through personal and educational networks.

All 24 participants were interviewed using the same interview guide, which I had previously piloted with a Singaporean teacher, a Singaporean Ministry official, and a Finnish principal. In line with realist approaches to research, the aim of these interviews was to refine my working theory of teacher accountability instruments (Maxwell 2012). Accordingly, interview questions were framed around an initial conceptual framework for the larger project in which this study is embedded (Hwa 2019). Interviews were conducted in English at a location of the participant’s choosing and lasted an average of 61 min. In both countries, the interviews reached saturation, with additional participants adding details based on their particular experiences but broadly echoing what others had said. Subsequently, I transcribed the interviews and assigned pseudonyms to each participant. Transcripts were coded in QDA Miner Lite, beginning with a preliminary coding scheme and adding subcategories and codes inductively as the analysis proceeded.

**Findings**

**Teachers’ subjective responses to accountability instruments**

To begin with accountability instruments originating from a teacher’s exosystem, Finland has what Högberg and Lindgren (2021) call a ‘thin’ accountability regime, with relatively few instruments for monitoring and managing teacher practice. According to Finnish interview participant Antero:

> When they selected me to study teaching, of course they checked that my personality and who I am fits the job. And after that, I have been on my own. Nobody has come here to say that, ‘You must change. And you must do it like this, not like that.’ I am in charge here. (also quoted in Hwa 2021a, 240)

Besides careful selection processes at the point of entry into the teaching profession, another cornerstone of this light-touch approach is the accountability instrument most consistently mentioned by Finnish participants: the national curriculum, which sets clear expectations for teaching and learning. Both instruments leave considerable room for teacher autonomy. As Emilia said, ‘Of course, I follow the curriculum. That’s what we do. […] But how I actually choose to execute it in my classroom, that’s up to me.’

In contrast, Singaporean teachers experience a ‘thick’ accountability regime (Högberg and Lindgren 2021), with substantial top-down accountability centred on the Enhanced
Performance Management System (EPMS) for high-stakes teacher appraisal. According to Singaporean participant Sonia:

The EPMS is something that drives all the teachers in Singapore. A lot of us peg ourselves to the targets set for us, set by us, according to this EPMS framework, just to ensure that we do not end up being penalised.

More favourably, several participants said that EPMS appraisals give useful feedback for improving their practice.

Differences notwithstanding, one commonality between the Singaporean and Finnish systems is that teachers’ responses to accountability instruments are contingent on their micro-level subjective perspectives. This is apparent in the diversity of teachers’ views about these instruments and, consequently, the heterogeneity of their responses to them. When discussing Finland’s light-touch approach to teacher accountability, Satu observed that:

The freedom for me is like, ‘I can do everything.’ (laughter) ‘I can make a hundred exercises for the students if I want to.’ And some of my colleagues think that even one exercise is too much. So the freedom has two sides.

Thus, a single accountability instrument can have divergent effects on teacher motivation. Other observations about colleagues who put in minimal effort were related by Finnish participants Maarit, Liisa, and Hannele, as well as Singaporean participants Jane, Peter, Maggie, Joseph. Also, Joseph noted that different teachers may direct their energies toward different priorities, even under the same EPMS standards:

It depends on individual teachers and their convictions. For me, I believe that nurturing the child’s character is more important. So if I need to, I would focus more on the child rather than on the lesson.

He drew a distinction between teachers who join the profession because they intrinsically value teaching, and those who ‘are in it for the money only’. Thus, whether under Singapore’s thick accountability regime or Finland’s thin regime, teachers’ subjective perspectives shape their responses to accountability instruments – and, consequently, the effects of these instruments within the school system.

**Sociocultural context and teachers’ mental models of motivation**

Although teachers’ subjective responses to accountability instruments can differ considerably, there were clear macrosystemic consistencies in participants’ descriptions of their own and their colleagues’ subjective responses. I posit that one reason for this consistency is that teachers’ responses to accountability instruments are influenced by their mental models of motivation (MMMs), which are themselves influenced by dominant sociocultural patterns. Before examining the relationship between responses to accountability instruments and MMMs (in the next subsection), I first examine the relationship between participants’ MMMs and their accounts of the sociocultural contexts in which they are embedded.

In their descriptions of accountability instruments, there were clear differences between the MMMs that were dominant among Finnish and Singaporean participants. This finding emerged inductively. Having identified interview quotations where
participants linked teacher motivation, accountability instruments, and sociocultural context, I reviewed a range of psychological theories of motivation with the aim of identifying an empirically validated framework to clarify and organise the analysis. However, none of the major theories (as identified by Schunk, Pintrich, and Meece 2010; Vroom and Deci 1992) emphasised motivational factors that were equally salient to the interview data from both countries – but two separate theories of motivation did overlap with the dominant MMMs that were implicit in the Finland and Singapore interviews, respectively.

When discussing motivation, Finnish participants often linked it to the competence, relatedness, and autonomy that Ryan and Deci (2000a) regard as fundamental to intrinsic motivation. For example, when I asked Juhani how sociocultural context influences teacher accountability, he said:

There’s something called Finnish sisu or stubbornness. Teachers are the kind of persons who are stubborn enough to feel the needs that the surrounding society gives them, and they will meet them. And they are also flexible enough to do it in a way that is quite effective.

Sisu is a Finnish word that is notoriously difficult to translate but relates to internal fortitude amid challenges (Partanen 2016). From Juhani’s perspective, this ‘stubbornness’ is directed toward meeting ‘the needs that the surrounding society gives them’, indicating a sense of relatedness. Moreover, he characterises teachers as being ‘flexible enough’ to meet these needs ‘in a way that is quite effective’, indicating competence. Similarly, when I asked Satu whether she received any financial rewards for extra effort in her work, she said that such rewards were negligible, but added that: ‘It’s inside me that I want to be good at my work. And I can meet parents knowing that I did my best, that I did things I didn’t have to do.’ Thus, Satu is intrinsically motivated ‘to be good at her work’, i.e. to be competent, and this motivation is linked to her sense of responsibility toward her pupils and their families, i.e. a form of relatedness. Additionally, Anneli linked motivation to autonomy: ‘In Finland, teachers perform better, I think, when we feel that we are trusted, and we can do our work our own way’. Other participants echoed this belief.

This intrinsically driven MMM is closely related to Finnish participants’ beliefs about the larger sociocultural context. After observing that Finnish teachers are more effective when they can work autonomously, Anneli added, ‘But that’s probably because our society is based on trust. In so many ways. So that’s why it works.’ This trust is not a carte blanche. Rather, it is based on the expectation that other members of society will likewise fulfil their complementary responsibilities. In Päivi’s words:

Finnish people know what’s wrong, and what’s right. And they are very interested if someone near them isn’t doing right. So I think teachers know very well if they’re doing right or wrong, and if the other teachers are doing right or wrong. It’s very much part of our culture.

Similar views were expressed by a Finnish interview participant in Müller and Hernández (2010, 313). Additionally, in Masa’s view, this ethos of ‘background responsibility’ includes ‘an understanding from other people that, “Oh, this is the job that you’re doing. I may not like it a lot, but I’m going to go along with it”’. Masa attributed teachers’ sense of autonomy to the fact that children are deemed responsible for their own schoolwork, such that ‘the student’s actions don’t really reflect on the teacher’, which is ‘immensely liberating’ for teachers. Thus, the sociocultural expectation that actors at all levels of the education system will fulfil their respective responsibilities – from the Ministry and central
government agencies through municipalities and schools to teachers and students, as interview participant Helena noted – safeguards teachers’ sense of autonomy. In turn, this sense of autonomy enables teachers to be motivated and to ‘perform better’, in Anneli’s words.

Singaporean participants emphasised a different set of motivational factors. While saying that ‘remuneration […] is never a good way to assess the worth or value of a teacher’, Eleanor also noted that ‘Singapore’s a very expensive country to live in, so [remuneration] does matter to a large number of people’. To use Vroom’s (1964) terminology, salaries and bonuses have a large positive valence for many Singaporeans. This valence, together with the belief that good performance is reliably instrumental in reaping such rewards, can influence teachers’ outlooks. According to Adeline, ‘Singaporean teachers are very typical civil servants, and they like to have their various KPIs [key performance indicators] and know that if they meet them, they might get rewarded’ (also quoted in Hwa 2021a, 331). Faced with this reward structure, teachers may redirect their effort in line with expectancies of performance, as Jane observed:

Some teachers may feel that certain areas are less debatable, like exam results, so they will chiong [i.e. rush towards, put effort into] that area. Then maybe you look at your CCA [curricular activity]: ‘Oh dear, it’s not possible.’ Whatever you do, it will be very hard [to win the inter-school competition], because maybe there’s another champion school in your zone already. So you strategise in this way.

The MMM that emerges from these descriptions – where motivation is driven by utility maximisation – recalls Vroom’s (1964) proposition that motivational force is a function of valence, instrumentality, and expectancy.

Strikingly, echoes of expectancy theory appeared even in the observations of participants who themselves disavowed Singapore’s competitive, progression-oriented system. For example, Andy noted that Singapore’s oft-discussed kiasu mentality – a hard-nosed competitiveness, from the Chinese Hokkien term for ‘afraid of losing’ – does not apply to him and his ‘band of merry colleagues who are just interested in developing the students’. However, he added that ‘we do recognise those who are deserving of credit because […] something about them enables them to go above and beyond for the students, and we don’t begrudge them if they are rewarded accordingly’. Thus, despite opting out of the meritocratic race, he endorsed its instrumentality, stating that superior performance is ‘deserving of credit’. This principle underpins the meritocracy that dominates Singapore’s sociocultural context (Tan 2018).

As noted above, the correspondence between Finnish participants’ MMM and Ryan and Deci’s self-determination theory as well as the correspondence between Singaporean participants’ MMM and Vroom’s expectancy theory was an observation that emerged inductively. To address the possibility that this observed divergence between Finnish and Singaporean participants’ MMMs arose from researcher bias (e.g. if my expectation that I would observe sociocultural differences primed me to over-read into the data), I reanalysed all interview quotes in which participants mentioned an accountability instrument having any sort of effect on teacher motivation. (I had extracted these quotes for a separate analysis, prior to noticing the difference in dominant MMMs.) In this reanalysis, I coded each time one of the quotes referred to a motivational factor in Ryan and Deci’s theory – autonomy, competence, and relatedness – or to a factor in Vroom’s theory –
expectancy, instrumentality, and valence. This analysis is summarised in Figure 2. While a few Finnish participants mentioned expectancy, instrumentality, and valence as factors that can influence teacher motivation, all of them mentioned competence and relatedness as such, and three-quarters mentioned autonomy. Moreover, while most Singaporean participants also mentioned competence and relatedness as influences (which is unsurprising given that all participants appeared to have high intrinsic motivation), every participant mentioned all three factors emphasised in Vroom’s theory. This suggests that the distinct MMMs described above are not merely an artefact of biased data analysis.

To summarise, Finnish and Singaporean participants appeared to have different mental models of how motivation operates. This does not imply that Singaporean participants did not care about autonomy, nor that Finnish participants did not desire any high-valence outcomes. However, these constructs were not relevant to their implicit mental models of factors that affect motivation. These MMMs map onto distinct psychological theories of motivation, and cohere with the broader sociocultural contexts.

It is important to note that these mental models are not universally shared within each setting. Both Finnish and Singaporean participants described some colleagues whose individual MMMs appeared to be more coherent with the dominant MMM of the other context. However, participants viewed such teachers as exceptions to the norm.

**Mental models of motivation and teachers’ responses to accountability instruments**

Thus far, I have shown that Finnish and Singaporean teachers’ micro-level responses to accountability instruments are varied and subjective rather than uniform and mechanistic. Variation notwithstanding, I have also shown that the dominant MMMs within each context reflect macro-level sociocultural consistencies. In this subsection, I draw a connection between these two sets of findings by showing that teachers’ micro-level responses to exosystem-derived accountability instruments are shaped by macro-level MMMs. I show this connection by tracing the MMMs implicit in, firstly, participants’ descriptions of what works well in their country’s accountability systems and, secondly, their descriptions of divergences between teachers’ responses and policymakers’ apparent intent.
In Finland, initial teacher education plays a vital role in enabling the ‘thin’ in-service teacher accountability regime. Besides the selective admission process, as mentioned above by Antero, the rigorous training reinforces teachers’ motivation. Masa observed that:

Finnish teachers have a master’s degree. There’s this sort of professional pride [...] and a level of respect that goes with being a teacher. [...] And I think the combination of those factors means that the internal [desire to excel] from the teacher is more important than anything else.

Masa’s description indicates two factors underlying intrinsic motivation. First, relatedness: ‘professional pride’ implies relatedness to collegial standards, while ‘respect’ implies relatedness to society. Second, having ‘a master’s degree’ implies competence.

Importantly, Finnish teachers are not only competent enough to fulfill their responsibilities, but they also feel competent. When describing how teachers respond to curricular change, Liisa said, ‘We know what we’re supposed to be doing, and then we do it.’ Later in the interview, Liisa’s observations about the national curriculum also indicated a sense of relatedness: the curriculum provides ‘a common ground for the students’. She also emphasised that ‘there’s no teacher who’s not aware of the curriculum’ – which was borne out across all my interviews with Finnish participants. Thus, teachers are united in following the same guidelines to serve students, reinforcing both collegial and societal relatedness.

Collegial relatedness among Finnish teachers is also maintained by the common pay structure. Anneli said that teachers ‘should get paid equally’ because they all held similar qualifications, so ‘the baseline is that every teacher is as competent as everybody else’. Similarly, Emilia noted that:

If you have a lot of rewards and people are evaluated against each other, then that makes a lot more competition, and that would eat away at collaboration. [...] I wouldn’t say no to more money, (laughter) but I’m very happy that we don’t have a system of rewards and punishments, actually.

Besides enhancing teachers’ sense of relatedness, the absence of high-stakes appraisals supports their sense of autonomy. This autonomy is premised on the expectation that teachers are willing (i.e. motivated) and able (i.e. competent) to teach well without external inducements. As Helena observed, ‘the assumption is that we teachers are professionals who know their job and have the skills and that we are all interested in the same goals’ (also quoted in Hwa 2021a, 224; see Partanen 2016, 127 for a similar observation). Thus, Finland’s approach to teacher accountability enables a mutually reinforcing relationship between teachers’ competence (knowing their job, having the skills), relatedness (having the same goals), and their autonomy. Specifically, teacher education establishes competence and relatedness; widespread belief in teachers’ competence and relatedness grants them professional autonomy; this autonomy, together with competence and relatedness, supports their intrinsic motivation; and this motivation helps to maintain their competence and the public belief therein.

Singapore’s teacher accountability approach, centred on the EPMS, follows a different but equally coherent logic. According to Mark:
On one hand, most teachers view the EPMS [...] like any rule that the government puts out, so they have to abide by it. But they do believe that it’s another example of the meritocracy in action. [...] That the harder they work, the more strategic they are about their work, the higher their performance ranking, and the larger their performance bonus would be.

Thus, if teachers value performance bonuses (i.e. if bonuses have a high valence), they will make strategic decisions to get higher performance rankings (i.e. allocate their effort based on expectancy), because they believe that the EPMS compensates hard work (i.e. they believe in its instrumentality).

However, the accountability system also influences teachers for whom performance bonuses have little valence, at least in some cases. For example, Joseph believed that most teachers were in the profession ‘not for extrinsic reasons, but mainly for intrinsic reasons’. Instead, his teaching experience had ‘really made [him] really believe in what MOE wants’ because ‘over time you realise the value of your work’. Thus, his motivation is rooted in ‘the value of [his] work’, implying a different category of outcomes. Financial rewards may have low valence for Joseph, but he is driven by the valence of ‘what MOE wants’, i.e. a vision of shared productivity for Singapore’s survival. Four other Singaporean participants (Peter, Geok Ling, Jane, and Timothy) also accorded little value to EPMS rewards but likewise said that the Ministry’s expectations of teachers broadly overlapped with their own. Hence, the EPMS facilitates alignment between the teachers whose goals are chiefly altruistic, and those whose goals are chiefly pecuniary.

The EPMS is also designed to foster alignment between teacher appraisal standards nationwide. This matters because perceived unfairness in EMPS appraisals can be highly demotivating. In Maggie’s words, such unfairness makes you ‘feel that whatever effort you put in is not worth it [emphasis added]’. To use Vroom’s (1964) terminology, teachers will only be motivated if they believe that good performance is instrumental for desirable rewards. Peter noted that reporting officers who are unfair or who do not convey their expectations clearly ‘can be quite demoralising for a teacher who’s put in a lot of effort, and then maybe is told that it’s not good enough, or just does not get any validation for it’. The Ministry invests considerable resources into forestalling a level of unfairness that could compromise EPMS instrumentality and, consequently, teacher motivation. For example, Jane noted that ‘they always call [performance grades] a collective decision’, and that school-level ranking meetings are externally moderated. Andy said he ‘personally’ felt that EPMS rankings were ‘a fair and consistent kind of measurement’, since his school principal had ‘gone to great lengths to actually explain that it’s done before a ranking panel’, rather than depending on a line manager’s vagaries. Most participants agreed that the grading system was flawed, but not unacceptably so.

Besides participants’ descriptions of teacher accountability instruments that were functioning as designed, their descriptions of divergences between policymakers’ intentions and teachers’ responses also reflected the socioculturally embedded MMMs. In Finland, despite teachers’ general compliance with the curriculum, their autonomy and sense of competence may be such that they disregard curricular changes that clash with their priorities. For example, Antero said he was ‘happy that the principal trusts [him] so much’ that he could deprioritise certain curricular goals he viewed as secondary. When asked whether accountability instruments make it easier or harder for him to be a good teacher, he evoked a national icon:
I’m a slightly old-fashioned teacher. I like the Finnish Formula 1 driver, Kimi Räikkönen, when he shouted in his team radio, ‘Shut up, I know what I’m doing.’ So I think in here [i.e. his classroom], too, I know what I’m doing. My focus is on the pupils. And I am on the right path.

Liisa, Päivi, and Satu also noted that curricular changes may have little effect on the practice of veteran teachers. In Satu’s words, ‘This curriculum is not so important, if you have worked for a long time. I know what I have to do.’

In Singapore, several participants suggested that the dominant MMM, along with the EPMS orientation toward rewards and penalties (and Singapore’s competition-oriented meritocracy more generally) had hampered a major policy platform launched in the mid-2000s: a shift toward a more holistic, less exam-oriented view of education (H. L. Lee 2004). In Peter’s words: ‘MOE has taken steps towards shifting the focus away from grades. [...] All of that is great in terms of what it seeks to achieve. But, honestly, it hasn’t changed that competitive culture in Singapore.’ This inertia was also mentioned by Sonia, Andy, and Eleanor (see also Hogan et al. 2013). Similarly, Adeline observed that:

it’s still very entrenched in the exam-based mindset that you need to do well in order to get good grades, to go everywhere. And even parents buy in to that mindset. [...] A lot of teachers want to buy in to the shift away from exam-based education. [...] We’re quite torn between, ‘Yes, we believe in this more holistic education’—but yet we know that, in the end, the students will be judged for their exam grades.

To use Vroom’s (1964) terminology, this ingrained ‘exam-based mindset’ means that ‘good grades’ have higher valence than the outcomes of ‘holistic education’. Even if teachers themselves value the holistic alternative, the awareness that ‘students will be judged for their exam grades’ means that grades retain high positive valence. The ‘shift away from exam-based education’ not only has lower valence, but also lower instrumentality: good grades are a familiar path to success, whereas the benefits of holistic education are less certain. Hence teachers do not invest much effort into this attempted shift, consistent with expectancy theory. Notably, Ryan and Deci’s (2000b) self-determination theory would instead predict that this shift away from grades would raise teachers’ intrinsic motivation: if teachers personally concur with this shift (as in Adeline’s account), it should increase their sense of autonomy, thus boosting their motivation. In short, participants’ descriptions of teachers’ responses to this accountability-related policy platform do not reflect the MMM articulated by Finnish participants. Rather, they reflect the MMM articulated by Singaporean participants, which itself reflects the broader sociocultural context in Singapore.

**Discussion**

These findings – about the extent to which teachers’ subjective responses to accountability instruments are influenced by mental models of motivation that are embedded within wider sociocultural contexts – are relevant to analyses of teacher motivation, teacher accountability, and the relationship between ‘best practices’ and implementation contexts. To begin with teacher motivation, examining teachers’ subjective responses to accountability instruments alongside their MMMs yielded meaningful observations about dense interrelations between the two. This affirms Watt and Richardson’s (2015) proposition that research on teacher beliefs and research on teacher motivation can cross-fertilise. Regarding motivation specifically, it is worth remembering that
psychological theories of motivation are themselves contextually embedded constructs. Perhaps it is no coincidence that Vroom’s articulation of expectancy theory, which is frequently cited in business management (Pinder 1992), resonated with the dominant MMM among participants in Singapore, where economic growth has long been a central theme of discourse about both education (S. K. Lee et al. 2008) and national identity (Tan 2018).

As for teacher accountability, although the data do not allow me to distinguish the direction of influence between accountability instruments and teachers’ subjective responses (unlike, e.g. Holloway and Brass 2018), the analysis nonetheless shows that the effective functioning of accountability instruments in these contexts is deeply embedded in context-specific subjectivities. This complements empirical work elsewhere demonstrating that sociocultural factors can render accountability instruments ineffective (e.g. Broekman 2016; Mizel 2009; Muralidharan and Singh 2020; Narwana 2015). In short, teacher accountability policy is not solely a technical matter, but also a sociocultural one.

By demonstrating the sociocultural embeddedness of teachers’ responses to accountability policy in Finland and Singapore, this study complements other analyses of the sociocultural specificity of both micro- and macro-level educational policy and practice in these and other celebrated education systems (e.g. Heng and Song 2020; Holmén 2022; Klerides 2021; Simola et al. 2017). This growing body of evidence matters because the case against acontextual borrowing of ‘best practices’ needs to be argued across educational research traditions (Crossley and Watson 2003) – not least because acknowledgements of contextual influence in policy discourse can sometimes be rhetorical strategies rather than fundamental principles (Auld and Morris 2016).

Conclusion

In examining the embedded interactions between teachers, accountability instruments, and sociocultural context in Finland and Singapore, I find that one way in which sociocultural context affects teachers’ interactions with accountability instruments is by influencing the mental models of motivation that shape their subjective responses to these instruments. However, two nontrivial limitations of this study are its relatively small interview sample and its temporally flat, cross-sectional nature. The latter prevents me from analysing pathways of co-evolution of accountability instruments, sociocultural context, and teachers’ individual and collective motivational responses to both. Nonetheless, this study complements other research arguing against naïve borrowing of ‘best practices’. It does so by bringing sociocultural context into the analysis of the everyday workings of the hot-button issue of teacher accountability in two reference societies, and by drawing on different strands of literature on comparative education, teacher accountability, teacher beliefs, and the psychology of motivation to ground the argument.

Contrary to claims from ‘best practice’ advocates that context ‘is secondary to getting the fundamentals right’ (Moursedh, Chijioke, and Barber 2010, 11), the teacher interviews in this paper suggest that context itself is fundamental. ‘Best practices’ are not context-neutral. In the words of Helena, a Finnish interview participant:

We have been getting a lot visitors in the past years, because of the PISA results. And you can see that they come in here thinking, ‘Okay, can we copy this?’ And they usually leave, I think, with, ‘No, we can’t.’
Or, as scholar-policymaker Michael Sadler put it in his 1900 essay, ‘In studying foreign systems of Education, we should not forget that the things outside the schools matter even more than the things inside the schools, and govern and interpret the things inside’ (Bereday 1964, 310).

Notes

1. Högberg and Lindgren’s (2021) empirical data included Finland but not Singapore. I classify Singapore’s accountability regime as ‘thick’ based on the typology in their analysis.
2. For a study of kiasuism among Singaporean parents in navigating primary school choice, see Debs and Cheung (2021).

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