Multiple contexts, motivation, and student engagement in the USA and Russia

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Abstract:

In this article, we outline the need to draw upon multiple contexts to gain meaningful understanding of factors that have a significant bearing upon student achievement motivation and engagement. In calling for theoretical approaches that can accommodate the complexities involved, we suggest that Bronfenbrenner's bioecological theory offers valuable insights. We subsequently draw upon a comparative study of student achievement motivation in the USA and Russia to demonstrate some of the methodological and substantive contributions that this theory offers. We also raise some of the inherent challenges and difficulties that result from such complex analyses but conclude that the rich and broad range of insights gained can offer much to those tasked with helping students to fulfil their educational potential.

Article:

Introduction

Motivation for academic achievement is often viewed by teachers, parents and students alike as an individual characteristic—some students are highly motivated to do well in school, others not at all motivated, and many in between. In the scholarly literature, too, achievement motivation is often treated as though that it is a feature of individual students, like temperament or personality. Within any given group of students, differences in achievement motivation may indeed be highly related to individual characteristics. However, when considering group differences in motivation (when entire groups within a society or across different societies seem to be differentially motivated to succeed at school) it becomes more difficult to accept the argument that variations are due solely to individual differences.

In this paper, we consider both motivation and engagement. In line with other motivation theorists, we distinguish between cognition, the realm of motivational theories, and engagement, which deals with overt behaviour such as effort and persistence in schoolwork (Ryan 2000). In our research programme, we found discontinuities, particularly on the part of our American informants, between expressed levels of achievement motivation (how much they stated that they were eager to work hard to achieve educationally) and engagement (i.e. student behaviour). Such a discrepancy is not necessarily puzzling as there are many situations where people may report high levels of motivation to achieve a particular end (e.g. losing weight, relating better to family members) but these are not necessarily reflected by subsequent behaviour. There are a number of possible explanations for such a phenomenon in respect of academic study. In part, it may be a consequence of a tension between students' underlying achievement motivation and the constraining social influences in the classroom and the wider community upon actual behaviour (we discuss such influences later in this paper); it may demonstrate the relative power of competing motivations (academic, social, sporting, etc.); and it may also reflect differing cultural norms and understandings as to what constitutes high levels of application and engagement.

As noted in the introduction to this special issue, scholars have proposed sociocognitive, sociocultural and situative perspectives that stress the reciprocal interaction of self and context to explain students' motivation and engagement in specific social contexts. Too often, however, context is treated as a single construct, rather than being considered as an interwoven range of contexts (teacher style, classroom, peer group, family, social class, ethnic identity, culture, etc.) and little empirical attention has been paid to the mechanisms whereby individuals interact with the varied contexts of which they are a part.

One theorist who has taken seriously both the issue of different layers of context and the mechanisms by which individual and context interrelate is Urie Bronfenbrenner (2005; Bronfenbrenner and Morris 1998, 2006). His bioecological theory underlies some of the issues related to achievement motivation in the research that the first author has conducted in the USA and Russia. Although there are some clear conceptual advantages to using Bronfenbrenner's theory, there are also some major challenges, both conceptual and methodological, discussed later.

Scholars have frequently invoked Bronfenbrenner's theory to point out the role that context plays in various aspects of human development (Tudge et al. 2009), and we also stress the theory's relevance when considering the multiple contexts relevant to motivation. However, it is important to recognise that context is only one element of the process–person–context–time (PPCT) model that has been the essence of the theory since the mid-1990s. In this model 'proximal processes' are the most important, being the 'primary mechanisms producing human development' (Bronfenbrenner and Morris 1998 p. 994). These proximal processes are the consistent and enduring forms of interaction between developing individuals and the people, objects and symbols that feature in the various contexts in which those individuals are situated. These processes (process) are influenced by characteristics of the people involved (person), by the multiple levels of context (context) in which those interactions occur, and by what is occurring in the historical period (time) during which the research occurs. Our goal in this paper is to show the ways in which different contexts, both spatial and temporal, influence student motivation via their typically occurring engagement with others (i.e. their proximal processes).

The origins of this research programme lay in multiple observations by the first author and his colleagues of student motivation and engagement in classrooms in St. Petersburg (Russia) and Eastern Kentucky (USA) during the 1990s. The Russian students appeared considerably more interested in, and enthused by, academic activities, worked harder (both in class and on homework), and, unsurprisingly, generally achieved at a much higher level than those in Kentucky (see Alexander 2000, for similar observations). Such dedication to schooling was particularly striking given Russia's substantial social and economic disruption during the mid 1990s and the apparent inability of educational success to lead to greater financial well-being. At about the same time, Kentucky's Education Department introduced radical educational reforms designed to raise standards. Thus, in one society, current societal pressures were militating against high educational standards; in the other, educational initiatives were being undertaken to address a long-standing history of low educational standards (see Elliott et al. 2005 for full details).

In setting out to explore the nature and role of achievement motivation in these contexts, Bronfenbrenner's bioecological theory was the most suitable to deal with the complex range of contextual and temporal factors that we were observing. Research based solely in the USA and theorising based solely on the North American context may not be valuable in explaining differences across cultures, and the important role of historical and contemporary classroom practices may be de-emphasised by scholars focusing upon individual differences within a given milieu (Hufton and Elliott 2000). Accordingly, any findings based upon student self-report data should be tempered by examination of broader contextual factors. A broader theoretical perspective was needed, one that required a focus upon typically occurring activities and how these are influenced by multiple levels of context, both spatial and temporal. Most important was the need to consider the juxtaposition of historical and contemporary contextual influences (i.e. time and context) on student activities and interactions (proximal processes).

The goal of this paper is thus to use Bronfenbrenner's bioecological theory to illustrate how student motivation for learning (individual characteristics) and student engagement in the learning process with others (i.e. proximal processes) are influenced by multiple levels of context. The macrosystem is the broadest—that of different societies, or at least a single city from each of them. Proximal levels of context, or the microsystems of home and school, are also relevant, partly because they are the contexts in which proximal processes occur, but also because they are influenced by the macrosystem. Equally important in Bronfenbrenner's theory is the chronosystem, or the impact of historical time on entire societies (and thus on the microsystems within them), as major social, economic, and/or political changes clash with traditional values, beliefs and practices.

Empirical studies at the broadest levels of context: Kentucky and St. Petersburg

Most scholars who have cited Bronfenbrenner have focused on the most immediate context (such as classroom or home) but have neglected broader aspects of the spatial context (e.g. culture) and temporal context (historical time) that are highly significant in shaping student orientations and behaviours. We thus draw on the first author's comparative studies of achievement motivation of students in St. Petersburg, Russia and Kentucky, USA. This work examined how layers of

contexts (home, school, societal and temporal) were associated with substantial differences in students' motivation and engagement. Through a multi-method approach the first author collected data concerning, first and foremost, students' proximal processes, specifically their reported behaviours at home and at school as well as classroom processes that helped us to gauge the influence of peers upon achievement striving. Self-report data were also collected about students' personal characteristics (their attitudes and values), their parents' beliefs and their teachers' perceptions, expectations and demands. Moreover, in addition to studying these aspects of the school and home contexts, the authors examined aspects of the relevant cultural context, something that can only be accomplished by considering historical influences and traditions in each culture.

In addition, the authors considered how contemporary pressures, resulting from massive social change, and often oppositional to traditional value systems, were both embraced and challenged. In focusing on differences in student motivation and engagement in Kentucky and St. Petersburg, the influence of the past upon contemporary views, activities and interactions (i.e. proximal processes) was striking. In Kentucky, such influence often operated in ways that reduced high academic striving. In St. Petersburg, historical tradition appeared to be an important driver to the maximisation of student effort and engagement.

Methods

Most of the empirical findings result from a series of surveys and interviews with students, teachers and parents. These all took place in the second half of the 1990s and capture one period, although in this paper, we subsequently draw upon more recent findings in the literature to effect comparison over time. The first study (Elliott et al. 1999) surveyed 1,324 Russian and 633 American 14- to 15-year-old students in high schools that were representative of the local districts. Students were asked to respond to questions exploring: (a) attitudes to school, teachers and school subject, (b) attributions for success/failure, (c) behaviour at home and in school, (d) expectations/wishes for the future. The items were derived from a wide extant literature on student achievement, with several questions similar to those employed in a survey of student attitudes produced by the National Commission on Education (Keys and Fernandes 1993).

A second survey (Elliott et al. 2001a) was conducted with 9 to 10 year olds (n=877 in St. Petersburg; 931 in Kentucky). This sample drew upon feeder schools linked to the original high schools. Many of the questions were similar to those used in the earlier survey.

A third survey focused on Kentucky and St. Petersburg parental perceptions and attitudes covering similar issues to those addressed with the students and teachers (Elliott et al. 2001b, 2005). This survey was distributed to parents/carers in all Russian and most American schools that had taken part in the student surveys. Interestingly, the parent response rate in St. Petersburg (72%, n=1,389) was markedly superior to that of Kentucky (33%, n=505), perhaps reflecting the greater weight given to education in the Russian context.

The parent survey explored a range of issues including: their child's attitude to school, academic performance, work rate and capacity for improvement, the child's behaviour and work rate at home and in school, parental attributions for children's academic achievement, the role of

homework and their expectations and desires for their child's future. In each of the surveys, data analysis took the form of comparisons across milieux for each of the variables under study.

Two years after the completion of the adolescent survey, our team returned to some of the original high schools and interviewed children aged 14–15 years (Hufton et al. 2002). In each of the two countries, 48 students (24 boys/24 girls) were selected at random from school registers and allocated (in equal proportions by gender) to one of three teacher-determined academic groupings: above average, average or below average. When a student was allocated to a group that was already 'full', another individual appropriate for one of the remaining groups was selected in their place.

The interviews explored the same four over-arching themes as in the surveys with exploration of topics including: the nature of the school day, leisure and homework, orientation to learning and work, attributions for academic success, the perceived value of education, and future goals in adult life.

Interviews were subsequently conducted with Russian and American teachers (Hufton et al. 2003). Informants comprised 36 teachers in each country, nine teachers from each of the same eight schools as used for the earlier student interviewees, thus ensuring a broad range of curricular specialisms. Many of the questions were similar to those given to the adolescent interviewees although, here, particular attention was devoted to continuities and discontinuities across home, classroom and other school-based activities. Here, the goal was to examine differences in the primacy accorded to academic study in each of these contexts by the teachers themselves, and the perceptions of these professionals of the attitudes and behaviours of students, their families and broader society. The focus was also on the teacher's role and tasks, and the perceived impact of educational change upon student motivation.

Each set of transcripts was read several times, first as a country series and then as a set across countries. Emergent themes, issues and key concepts and constructs, together with data-interrogative questions, were developed and noted reiteratively. Data were also analysed, transcript by transcript, using a qualitative analytic software package which enabled the assembly of concept- or construct-tagged extracts of text with some perceived common relevance, for comparison and contrast across respondents.

Though the software package helped resolve a practical data-management problem, simple reiterative reading of the transcripts was as important, for bringing to the surface similarities and differences across transcripts, as the closer textual analysis. In a transcript, there may often be no text which, taken out of context, conveys the sense of a section of the transcript, or the transcript as a whole. Equally, in intercultural comparisons of the kind involved here, the failure of students from one culture to mention something regularly mentioned in another may also be perceived as valuable data.

Results

In the sections that follow we examine, in turn, each of the main components of the PPCT model, examining them separately by cultural context (Kentucky and St, Petersburg).

Proximal processes relevant to achievement motivation in St. Petersburg and Kentucky. In both the students' surveys and interview responses to questions about prevailing proximal processes, strong pro-adult peer forces in St. Petersburg were found that contrasted strongly with relatively negative peer influences in Kentucky. St. Petersburg children tended to consider that their peers influenced them to behave as teachers would desire. In contrast, Kentucky students tended to provide a mixed picture reporting a relatively even split between those who felt positively (pro-school) or negatively influenced by their peers.

However, the first author's informal observations of many classrooms in Kentucky revealed different peer influences. These observations, together with more detailed data obtained via the interviews, reinforced the perception that there were subtle, yet powerful, influences operating in the US context that undermined the demonstration of high levels of academic engagement (see Elliott et al. 2005, for detailed analysis). Thus, while the Kentucky students may have accurately reported that explicit forms of peer approval or disapproval may not have affected their behaviour, they may have failed to be consciously aware of the more subtle influence of group proximal processes. The student and teacher interview data highlighted the ways by which respect or disapprobation might be granted by peers. In Kentucky, effortless academic success is often seen as admirable, although, even here, some students appeared to avoid being seen as too successful. Those who were deemed to be possessed of unusually high levels of intellectual interest and enthusiasm, who were thought to be excessively serious about study, and who worked more than was considered by others to be necessary, ran the risk of being dismissed or disparaged as 'nerds'. In other words, individual characteristics both influenced and were influenced by proximal processes. Most of the Kentucky informants believed in the importance of well-roundedness, in being involved in a variety of activities. As one student stated, 'I'm not a nerd. I've got a life outside of school.'

In contrast, hard-working and high-achieving students in St. Petersburg were granted admiration, popularity and status as long as they showed few signs of arrogance and were prepared to support their classmates when they needed help with their studies. As noted earlier, these differences in achievement motivation do not simply reflect individual differences (although such differences are important), but stem from regularly occurring interactions (i.e. proximal processes with peers) and are clearly influenced by culturally and historically related factors, a topic to which we shall later return.

In line with Soviet historical traditions, many of the Russian teacher informants still saw the pedagogical tradition of fostering and encouraging a class-group orientation as an important feature in the schools. In most cases, the peer group operated to raise performance. The following quotations from two St. Petersburg teachers reflect the general tenor of the interviews:

> Individual and collective education are connected with each other because the group educates the student and the student influences the group. … those children who are not very bright, they try, you know, to catch up with the stronger students, not to look, as we say, not look like a 'white crow'.

Such observations contrasted strongly with those of the Kentucky teachers who commented that academic success was often played down, particularly by boys, many of whom sought to show they were 'cool' by not getting high grades, or tried to conceal their academic successes from their peers.

A strong sense of instrumentalism was seen in Kentucky (Elliott et al. 2005), with little or no value placed upon the value of education as a means of personal development (beyond the economic) and general disengagement between the home and school (see Stevenson and Stigler 1992, in relation to similar US vs. Asian differences). Such detachment, according to Bronfenbrenner (1974) has led the school to become '…one of the most potent breeding grounds of alienation in American society' (p. 60), a theme he was to return to in his discussion of the 'teenage syndrome' (Bronfenbrenner 2001, 2005).

The influence of local contexts (school and home) in Kentucky and St. Petersburg. It is impossible to write about the influence of local contexts from the perspective of bioecological theory, without considering the broader contexts (cultural and historical) within which they are set. The proximal processes that negatively influence academic achievement in Kentucky are directly affected by the home and school climate and indirectly by the broader, society-wide, context and by long-standing tradition.

Anti-intellectualism in US high schools, where social and sporting success often represents the pinnacle of achievement, has long been lamented by social commentators (Howley et al. 1995; Sedlak et al. 1986). However, Coleman (1961) noted, even before Bronfenbrenner, that such orientations were not purely the result of a school-based adolescent peer culture but rather originated from the young people's socialising experiences within the wider community. In terms of Bronfenbrenner's theory, and in particular his discussion of the "mesosystem" (the interplay between different microsystems, such as school and home), it is important not to focus on what occurs in a single microsystem. Home attitudes and values also influence what occurs in school, just as school behaviour influences what occurs at home. As can be seen in this study, adult support and encouragement of non-intellectual achievements provide powerful messages about what really matters, and these impact students' own value systems.

Whereas students, parents and teachers in the Kentucky-based studies emphasised that education was important, learning and studying seemed not to be powerful features of the students' daily lives either in school or in their home and community. Such an observation demonstrates the potential methodological problems involved in conducting surveys of student motivation in isolation from actual behaviour; strong levels of motivation were not always borne out by actual engagement. Similar findings were presented in an ethnographic study of a US high school (Grant and Sleeter 1996) in which students reported belief in school and the value of education yet, '…on a day to day basis, they invested minimal effort in it' (p. 222). Similarly, Bempechat (1998) spoke of the mixed messages US parents signalled about the value of education where their expressions of support for the importance of education are often not matched by their everyday actions.

In Kentucky, education appeared largely valued as a means to an economic end. In asking informants why it might be important to work hard in school, responses tended to focus upon the

low level of employment ('pumping gas or flipping fries') that would most likely result from educational failure (see Elliott et al. 2005). For a small proportion, mainly adolescents living in rural poverty, education offered little beyond the acquisition of basic skills. Very rarely in Kentucky was there even a slight suggestion that erudition had any intrinsic value.

In contrast, the Russian informants emphasised the importance of personal growth through education, and the value this had for gaining the admiration of peers, family and members of the wider community. Such views were expressed during a time of severe economic disorientation when ostentatiously wealthy 'new Russians', many without high levels of education, were gaining widespread attention (Nikandrov 1995). The following remarks reflected the general perceptions of many of the St. Petersburg adolescent informants; such views were strikingly absent from the Kentucky sample.

- (Being educated) …… is more … important [than merely making money]. It may be the aim of life.
- It is good to become an educated person to deal with people from a certain circle.
- An educated person will always feel well in the society.
- It is nice to feel yourself educated, to be able to talk with other educated people, feeling that you have got the same level of knowledge they do.

It is important to emphasise two things about these motivation-related statements. First, they were reflected in these adolescents' engagement; they actually studied hard to become educated individuals (see also Alexander 2000; Muckle 1990). Second, as stated previously, these prevailing attitudes and linked activities and interactions are not simply personal characteristics of the individuals concerned, or of their specific homes or classrooms, but are clearly influenced by historically derived cultural conditions, as Bronfenbrenner (2005) argued.

As with the US sample, the Russian students were interviewed about the possible merits of leaving school early to gain employment. Interestingly, in St. Petersburg at this time, leaving school and endeavouring to go into some form of entrepreneurial activity was likely to bring economic advantage. Indeed, during the mid-1990s it appeared that those with higher levels of education were earning less money (Nikandrov 1995). The economic realities for Russian adolescents at this time, therefore, were very different to those in Kentucky. Despite such pressures, the great majority of the St. Petersburg informants rejected any suggestion that they should leave school early. The primary reason given to support this position was not economic but, rather, their personal development. Thus, several students argued forcefully that spiritual values were of more importance than the accumulation of wealth.

The adolescent survey (Elliott et al. 1999) provided similar results. Students were asked why it might be important to work hard in school and needed to rank from a range of responses the three most important for them. The choice of options concerned: intrinsic aspects of motivation, pleasing parents or teachers, obtaining qualifications, getting good marks and wanting to be an educated person. More than half of the St. Petersburg sample chose 'to be an educated person' as the most important, compared with 20% in Kentucky. In contrast, 'gaining qualifications for a job or college' was selected by 33% in St. Petersburg and 59% in Kentucky. Interestingly, for younger children, the pattern was similar although the difference was smaller (Elliott et al.

2001a). Thus in Russia, 44% of 9 to 10 year olds selected 'to be an educated person' first, compared with 30% of the Kentucky 9 to 10 year olds. These findings are in line with a number of Russian and non-Russian scholars who have noted the importance of education as an end in itself for Soviet and immediately post-Soviet Russian students (Alexander 2000; Holmes et al. 1995; Laihiala-Kankainen and Rasčetina 2003; Muckle 1990).

In exploring the perceptions of teachers in both contexts (Elliott et al. 2005; Hufton et al. 2003) although teachers in Kentucky and St. Petersburg appeared to share similar views about key factors that impacted upon students' achievement motivation, yet it was found that meanings varied from one context to another. One difference, for example, concerned the use of leisure time. Although teachers in both settings saw leisure as important for children, understandings about the meaning of 'leisure', about students' entitlement to it and about the amount that was desirable, varied greatly between the Russian teachers and those from the USA. Russian teachers generally made greater academic demands upon children both in class and in out-of-school time (heavy homework demands representing a longstanding practice [Zhurkina 1973]) and were more likely to desire that students used their free time to improve themselves. In contrast, Kentucky teachers were more likely to see out-of-school activities as the business of the students and their families.

Although teachers in both cultures were supportive of extra-curricular activities, US teachers were far more likely to prioritise sporting over academic study after school. This perception was borne out by several Kentucky students who described arrangements in their schools. In some cases, homework was minimal on match days or permitted to be completed during the school day to enable evening sports events to be attended. Such practices, reflecting long-standing US values about the importance of sporting success (Coleman 1961), carry significant and powerful messages about those activities that the community most values.

Although the students' classroom has been so far portrayed as the main microsystem context in which achievement motivation is relevant (though a microsystem heavily influenced by culture and history), the home is another important microsystem. Parents' values and how they express those values in their daily dealings with their children, also need to be considered.

Interestingly, Kentucky parents reported high levels of satisfaction with their children's achievement and workrates, whereas St. Petersburg parents tended to think that their children could work harder and achieve more. Such perceptions ran strongly counter to our classroom observations, and those of other researchers in Russian and American classrooms (e.g. Alexander 2000). Only classroom behaviour showed a difference between parent and student perceptions. In line with others' research (Alexander 2000; Glowka 1995; Muckle 1990; O.E.C.D. 2003) the St. Petersburg student informants indicated comparatively high standards of classroom behaviour whereas Kentucky students reported significantly higher levels of student disruption (Elliott et al. 2001a).

American parents were generally more satisfied with their children's conduct than were their Russian counterparts. When asked to choose from a list of options that might help improve their child's performance, Kentucky parents placed most emphasis upon working harder in class and getting more teacher help. Although working harder in class was also prioritised by St.

Petersburg parents, they also emphasised doing more homework and getting more help at home. This was despite the very heavy homework demands placed on Russian children; our Russian 10-year-old informants undertook, on average, more homework each night than the American 15 year olds we surveyed.

Such attitudes appear to reflect the separation of home and school in the USA, with many believing that homework represents an intrusion into family life (Gaffield 1994; Gill and Schlosman 2003; Kralovec and Buell 2000). Accordingly, much of what was called 'homework' was actually undertaken during the school day, something that is not restricted to this particular region of the USA. Stevenson and Nerison-Low (1998) commented upon a widespread tendency of American parents to value the well-roundedness that was a strong feature of our adolescent interviews. With cherished notions about the 'pursuit of happiness', American parents have been criticised for making limited demands and protecting their children from failure by lowering academic expectations (Bempechat 1998). This, together with parental demands for high grades has resulted in 'dumbing down' and a system of grading in which, '…content-free A grades have become tools of affirmation, therapy and public relations' (Sykes 1995 p. 31).

The impact of historical time on academic achievement motivation in Kentucky and St. Petersburg. Different levels of the spatial context (the interconnections among the macrosystem and varying microsystems, including home and school) clearly influence proximal processes. The same is clearly true of the temporal context. In Kentucky, contemporary views of education and academic achievement motivation are still influenced by the state's early history. Its settlers were strongly independent and self-reliant, were generally opposed to taxation and often felt that education was of limited value to people in rural agrarian communities. Too much education, in fact, was viewed as an expensive luxury and dangerous, given its potential to lead children to neglect family, community and land (Goodnow 1988; Peters et al. 1986; Wilson et al. 1997). Even among those relatively few families that valued education, it was viewed in instrumental ways rather than for its intellectual promise (Sedlak et al. 1986). Schooling, in fact, was valued more for its social and sporting opportunities more than for any intellectual rewards (Coleman 1961). These traditional values still influence students' academic motivation in contemporary Kentucky.

Similarly, the impact of historical time on beliefs, activities and interactions can be seen clearly in Russia. Immediately after the 1917 Revolution, the education system was designed to create the 'new Soviet man' (Tudge 1991) but nonetheless Lenin did not want to make a complete break with the past. He wished to retain the best of the old Tsarist system (Fitzpatrick 1999) and the education system under Stalin emphasised mathematics and the sciences as part of an academic curriculum that in many ways reproduced the old system (Holmes 2005). There was then a high level of continuity between 1930 and the early 1990s.

The powerful effect of peers in our Russian studies could be traced back to the pioneering work by Makarenko in the 1920s and 1930s. This had highlighted the ways by which skilful adult intervention could lead to powerful prosocial peer influences. Children's desire for affiliation and friendship could be focused through their sharing in valued, common tasks, which in turn gained reflexive importance as a means of affiliation and friendship. Those charged with the upbringing of the child (at home and in school) were responsible for inculcating the skills and dispositions

for collective relations (Bronfenbrenner 1970; Tudge 1991). In addition to developing the child's character, the collective was an important tool that schools could utilise to harness powerful peer influences to support adult values and objectives and regulate student behaviour and classroom engagement.

Such a process differed greatly from that typically found in contemporary Western peer settings. Thus, in a comparison of 12 year olds in New York state and Moscow, Bronfenbrenner (1967) found that in relation to anti-social behaviour, the American children were more likely to accede to the promptings of peers than to the promptings of teachers and adult family members.

However, historical and spatial contexts can sometimes work in opposing ways, as in Russia in the past two decades. Unlike Kentucky, St. Petersburg has witnessed major political, economic and social changes that have had a dramatic impact on education, and thus on proximal processes within the classroom and at home. In St. Petersburg, events in the years following the collapse of the Soviet Union presented a significant challenge to long-standing beliefs and traditions. Dramatic social and economic change and the resultant ideological vacuum that resulted from the demise of communism increased the susceptibility of many Russians, particularly the young, to globalising influences that often ran counter to long-standing practices and beliefs (Elliott 2009; Elliott and Tudge 2007). Initially, social dislocation had little effect upon day-to-day life in schools (Alexander 2000; Hufton and Elliott 2000). However, students began increasingly to question the wisdom and authority of adults. Their parents often appeared to struggle to offer valuable advice (Shurygina 2000) and their teachers seemed unable to prepare them for the new economic realities of adulthood (Iartsev 2000). As one contemporary informant noted, 'School doesn't teach what's important any longer… How to live, how to go on living in this unimaginably difficult world' (Schmidt 2001 p. 131). Globalising influences that emphasise individualism, independence of thought, personal agency and detachment from traditional ties and settings (Giddens 1991; Inglehart and Welzel 2005) added to the decline in adult influence.

The role of peers as negative socialising agents strengthened with core values increasingly being gleaned from intellectually undemanding mass culture (Zvonovskii and Lutseva 2004). Alongside the new wealthy classes grew an increasingly alienated educational underclass, mounting problems of anti-social behaviour and rising school dropout rates (Andriushina 2000). Education was increasingly seen in highly instrumental terms; no longer was it primarily a means of self-improvement and a sign of being cultured. As Russian society transformed from emphasising knowledge to consumption (Maksakovskii 2006), the value placed upon intellectual activity declined (Vishnevskii and Shapko 2007). Elliott (2009) has questioned the extent to which Russian children were fated to share the problems of American children whose often chaotic lives (Bronfenbrenner 2001, 2005) are marked by growing cynicism, mistrust, disillusionment, self-centredness and a lack of faith in the basis institutions of their society. Clearly, proximal processes are influenced not simply by long-standing traditions but by current conditions.

The importance of education in any society and the achievement motivations of the students within that society depend significantly upon the traditional value that scholarship and erudition have held and current economic and vocational opportunities (Broadfoot et al. 2000). As Elliott

(2009) notes, how the next generation of students will reconcile the tensions between the forces of tradition and globalisation is a complex question whose answer is not easily predicted.

Discussion

In this paper, we have shown the way in which Bronfenbrenner's bioecological theory can help us make sense of the difference in approaches to achievement motivation in two very different contexts—Kentucky in the USA and St. Petersburg in Russia. We used a comparative study to demonstrate not only the importance of considering multiple contexts (including temporal factors), but also the conceptual and methodological difficulties of studying these in relation to students' achievement motivation. As noted earlier, if one wishes to apply Bronfenbrenner's theory, it is first necessary to examine relevant proximal processes, or the typically occurring activities and interactions in which adolescents engage. Using the first author's observations of and interviews with adolescents, we described the activities and interactions that either support or hinder the fostering of achievement motivation (classroom dynamics, interactions with peers, teachers and parents, etc.). Second, it is necessary to demonstrate the ways in which one or more specific individual characteristic modifies the nature of the achievement-related activities and interactions, and we described here how these adolescents' attitudes and beliefs about the value, or lack of it, of school clearly influenced their behaviours. Third, one has to show how their activities and interactions are also influenced by the context in which they occur. Here, we illustrated the impact both of the immediate context (primarily the classroom and the adolescents' peer groups) and of the wider context of culture, represented by rural Kentucky in the USA and St. Petersburg in Russia. Finally, historical time was included by clearly placing the data into their specific historical and contemporary contexts.

There are conceptual and methodological challenges in trying to incorporate all elements of Bronfenbrenner's bioecological theory into a research design. In particular, it is difficult to show clearly the interconnected effects of contexts at different levels (immediate and distal) on relevant proximal processes. The task is made more difficult when considering not only the spatial, or cultural, context, but its temporal equivalent. Prevailing cultural patterns change over historical time not only because members of a new generation never simply imitate the ways of the previous generation, but also as a result of the extra-societal forces of globalisation.

From a conceptual point of view, the situation is more troublesome because although Bronfenbrenner (1993) was clear that both cultures and the 'sub-cultures' within any culture qualify as examples of the macrosystem, he subsequently failed to develop his ideas about within-society cultural groups (Tudge 2008). The macrosystem, for Bronfenbrenner, relates to the values, beliefs, practices, access to resources and so on of a culture or subculture. However, Bronfenbrenner never discussed situations in which the values, beliefs, practices and resources of one sub-culture were different from those of another. For example, 'American' values are often portrayed as including independence and autonomy; however, although middle-class families do indeed encourage autonomy and self-direction in their children, working-class families are more interested in fostering obedience and rule-following in their children (see, for example, Kohn 1995).

From the perspective of this paper, the values about education that the Kentucky adolescents expressed can hardly be described as representative of the entire USA any more than the approach to education of middle-class New Yorkers, Latinos in California or Asian Americans in Washington State could be. Nonetheless, there has to be enough similarity in values for it to make sense to talk in terms of American values about education as being different from Russian values. In our study, national differences emerged that were strikingly resonant with the wider literature. The reason for this has to do with the different ways in which education developed, over historical time and the particular economic and political events that influenced educational policies in each society. Values about education, and thus motivation to achieve, are always being modified as a result of these types of changes.

There are thus clear methodological, and not simply conceptual, challenges in having to take account of these varying layers of context, from the immediate layer of school, peer group and home, to the more distal layers of social class, region, ethnicity, and culture and finally to the ever-changing temporal context. Each of these interconnecting layers influences the typically occurring everyday activities and interactions that constitute proximal processes.

For the study of achievement motivation to progress beyond the narrow confines of its experimental origins and to be able to offer meaningful insights to educators, research approaches need to be able to accommodate the complex maelstrom of factors that have a bearing upon students' academic interest, motivation and engagement. In this paper, we have shown how Bronfenbrenner's bioecological theory and multiple methods drawing upon multiple contexts can be employed to yield significant understandings of children's motivation and engagement.

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