

Educational Motivation and Engagement: qualitative accounts from three countries

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ABSTRACT *This article extends and develops earlier survey studies by reporting findings from detailed interviews with adolescents in Sunderland, Kentucky and St Petersburg. The interviews sought to examine a number of key factors underpinning educational motivation and engagement, in particular, attitudes about schooling, self-evaluations of academic performance, patterns and rate of work at home and at school, reasons why education may be valuable and aspirations for the future. A number of reasons for the presence of high levels of English and American self-satisfaction, and lower Russian self-evaluations are presented. In line with the earlier studies, yet contrary to a widely held position, effort appeared to be emphasised more than ability in explaining differential performance. Differences in the meaning and understanding of such constructs are considered. The article then examines the important influence of peers, and teacher–pupil relationships, upon classroom behaviour and work rates. Differing perceptions as to the intrinsic and extrinsic value of education are explored. In conclusion, the implications for educational reform and attempts to raise educational achievement are considered.*

Introduction

In a series of articles (Elliott *et al.*, 1999; 2001a, b; Hufton & Elliott, 2000), we have explored a range of issues concerning pupil and parent attitudes and orientations towards educational achievement in three centres, in England (Sunderland), the USA (Eastern Kentucky) and the Russian Federation (St Petersburg). The source of this work originated in a series of visits to primary and secondary school classrooms in Eastern Kentucky and St Petersburg during the early 1990s where we were confronted by a number of striking differences suggesting higher levels of educational motivation in the latter context. Of greatest salience in St Petersburg were the much greater levels of classroom engagement and work rate, a strong sense of order and discipline, significantly

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higher rates of out of school study time and a seemingly more positive orientation, on the part of the students, towards education as central to their lives. Comparable differences have also most recently been found in Alexander's (2000) five-nation study involving schools in England, the USA (Michigan) and Russia (Kursk and Moscow).

We have not perceived our work as aiming to make transnational comparisons, as such. For our purposes, it has been sufficient that the processes in which we were interested were situated in what could be expected to be different cultural milieux. At the same time, there were similarities between our chosen centres but these have not, so far, been a focus of analytic interest for us. In each, economic challenges appeared to be a significant threat to the maintenance of high levels of educational motivation. In Kentucky, a traditional reliance upon agriculture, rather than manufacturing industry, has resulted in relative economic decline. Eastern Kentucky, has long lagged behind the rest of the state in terms of economic growth and its major industry, coal, declined substantially in the 1980s. Economic stagnation would appear to be highly unlikely to challenge the traditional antipathy towards education prevalent in this region (Wilson *et al.*, 1997). Sunderland, formally the largest ship-building city in the world and, like Eastern Kentucky, heavily reliant in the past upon coal, has similarly witnessed decline. In the 1950s and 1960s, approximately half of the industrial workforce was employed in marine or coal industries. Now these have virtually disappeared and long-term unemployment rates are high. For many young people, the future appears bleak and one which is unlikely to be significantly improved by working hard in school (Wilkinson, 1995). Throughout Russia, economic and social instability during the past decade has resulted in a severe threat to traditional values whereby concerns for country and collective have begun to be replaced by an emphasis on materialism and individualism (Nikandrov, 1995). Massive cuts to educational funding (Rakhmanin, 1997) have meant that teachers' wages often go unpaid, equipment is lacking and the material fabric of schools is often very poor. A growing perception, on the part of young people, that their material position is not greatly influenced by how hard they work or by their educational level (Zubok, 1999) but rather, by the employment that they can obtain—itself, often independent of performance at school or university (Nikandrov, 1995)—is highly likely to place a strain upon young people's desire to commit significant effort to scholarship. The opportunities for a commercial career and the drive to entrepreneurialism are perhaps greatest in the two major cities of Moscow and St Petersburg.

The selection of these three centres was influenced by another important factor. In each, major educational reform has been introduced as a means of raising standards (NB: in Kentucky, this was at state level; in Sunderland and St Petersburg, national reforms operated). These have not only resulted in changes to the content of the curriculum but also reflect attempts on the part of policy-makers to change approaches to teaching and learning (see Elliott *et al.*, in preparation). In our informal observations of practice and dialogues with teachers, we were, however, somewhat unconvinced that changing curriculum content and pedagogy, without also directly addressing underlying attitudes, beliefs and value systems, would result in the gains that were desired by the reformers. For this reason, we embarked on a series of studies of these three centres geared to exploring the complex relationship between schooling, educational reform, differing value systems and the impact of significant socio-economic hardship.

Most motivation theorists make a distinction between cognition (the realm of motivational theories) and engagement (i.e. overt behaviour, such as effort and persistence in schoolwork). Ryan (2000) suggests that in studying cognitions, motivation researchers are largely interested in two main questions: 'Can I do my schoolwork (e.g.

attributions, self-efficacy beliefs, expectancy beliefs)? and Do I want to do my school-work and why (e.g. value, mastery and performance goals, intrinsic and extrinsic motivation ...)? (p. 102). Here, a distinction is made between motivation (conceived as a set of beliefs) and engagement (i.e. actual behaviours involved in undertaking schoolwork). Generally, high levels of engagement are considered indicative of high levels of motivation. However, as Ryan (2000) points out in a discussion of peer influences, we are still unclear as to the extent that changes in motivation lead to changes in academic engagement, and subsequently, educational achievement, and, contrastingly, the extent to which socialisation impacts upon behaviour, with motivational beliefs changing in response.

While retaining the emphasis upon the cognitive, other motivation theorists (e.g. Kuhl, 1984; Heckhausen, 1991) suggests a 'pre-decisional' phase when the individual is engaged in decision-making and goal-setting and a 'post-decisional' phase which includes those cognitive activities engaged in after a decision has been taken. This latter phase is concerned with goal implementation in which volitional factors such as action initiation, perseverance, and the overcoming of internal obstacles to action are involved. It is possible, of course, that these two phases may not be well coordinated. One may choose to study an advanced mathematics class at high school, perhaps, because of a desire to gain good academic grades, but a lack of interest in studying mathematics, or competing attractions, may delimit the amount of energy expended in pursuing this goal. Similarly, students in school may be required to study a subject that holds little appeal yet may embrace it enthusiastically because academic success is valued. We do, however, take issue with Pintrich & Schunk's (1996) argument that in school there is little pre-decisional activity on the part of students (p. 183). While they may not have any choice about the requirement that they should study French, for example, students must still determine whether this is an activity to which they are prepared to commit themselves. It is also important to recognise that in complex contexts such as school classrooms, it is often difficult to determine, for any specific learning activity, where pre-decisional deliberation ends and post-decisional behaviour commences (Dornyei, 2000).

The present study is one of a series in which we have tried to explore a number of important factors influencing students' orientation to schooling, work patterns and rates, and desire to succeed academically. In endeavouring to build an ecological understanding (Bronfenbrenner, 1979) of educational motivation and engagement in each location, we have sought to examine the bi-directional influences on the individual and the multiple contexts in which they operate (Bronfenbrenner, 1989; Aber *et al.*, 1997). Thus, we do not highlight or provide a specific model of motivation; rather, we draw upon a variety of theoretical perspectives including attribution, intrinsic/extrinsic motivation, self-efficacy, expectancy \times value and goal orientation (for discussion of these, see Elliott *et al.*, 2000, in preparation). We have also been greatly influenced by the work of Stevenson and colleagues (Stevenson & Lee, 1990; Stevenson & Stigler, 1992), which has sought to explain why achievement and work rate in many Asian countries exceeds that in the USA (and, according to Reynolds & Farrell [1996], England). In our investigations, we have sought to examine both cognitions and behaviours relating to academic success and endeavour to identify possible explanations for differences between the three locations that may emerge.

In drawing heavily upon Stevenson's work, our studies have indicated a number of elements that appear to have a bearing upon the greater work rate and the apparently high average achievement of children in St Petersburg. Elliott *et al.* (1999, 2001a)

identified four pupil factors: perceptions of, and satisfaction with, current academic performance and work rate; the perceived importance of effort and ability; the influence of the peer culture; and the purpose and value attached to the notion of being educated. Findings from these studies, involving more than 6000 9/10 and 14/15 year-olds indicated the following.

1. Pupils from Kentucky and Sunderland shared a relatively high degree of satisfaction with their work rate and their current level of academic performance. They were more likely than their St Petersburg peers to believe that they usually worked as hard as they could in class and were less likely to believe that they could improve their performance a lot.
2. Whilst pupils in all three centres recognised the importance of working hard, the Kentucky and Sunderland pupils were considerably more likely to emphasise effort (rather than ability) attributions as key to success. However, their actual academic work rate both in class and at home appeared to be significantly less than that of the St Petersburg pupils.
3. Disruption in class appeared to be less common in St Petersburg classrooms. An important influence appeared to be the impact of peers who, in St Petersburg, were generally found to have a positive influence upon respondents' work rate and behaviour. The reverse appeared to be the case for the Sunderland and Kentucky samples.
4. While recognising the importance of education as an important factor in their vocational futures, St Petersburg teenagers continued to place great emphasis upon being an educated person as an end in itself (more than half selecting this as the most important reason for working hard in school). In contrast, the Kentucky and Sunderland children appeared far more instrumental and were more likely to prioritise the need to get qualifications.

Some of these findings were consistent with earlier studies (e.g. the high level of self-satisfaction of American and British pupils is well documented ([Oettingen, 1995; Keys *et al.*, 1997a, 1997b; Burghes, personal communication]; there has traditionally been a strong Russian emphasis upon being an educated or 'cultured' person [Williams, 1997]; and similar patterns of disruption and peer influence in these three countries have also been observed by Alexander [1999, 2000], yet other outcomes were more puzzling.

The findings of Stevenson and his colleagues (Stevenson & Lee, 1990; Stevenson & Stigler, 1992) comparing American and Asian pupil attitudes and behaviours have resulted in widespread acceptance that the former tend to emphasise fixed ability while the latter are more likely to stress effort as key to achievement. A belief in ability, it is contended, will reduce striving in the case of failure experiences and lead to less motivated pupils. In contrast, if it is believed that one can achieve one's desires by working hard, pupils may be more likely to be willing to expend greater effort. Elliott *et al.* (1999, 2001a), however, were surprised to find that, unlike Stevenson's studies, Kentucky pupils placed greater emphasis upon effort than ability. The same was true for the Sunderland pupils, a phenomenon that appeared to run counter to the developing wisdom echoed in British governmental publications (Reynolds & Farrell, 1996). In a subsequent study, we also found a strikingly similar pattern for parental attitudes (Elliott *et al.*, 2001b). More recently, Stevenson's claims have been challenged by other writers (e.g. Bempechat & Drago-Severson, 1999), who have pointed to contradictory data emerging from the Third International Mathematics and Science (TIMSS) study in which

effort was emphasised more by English and American students than by those in a number of higher scoring Pacific Rim countries.

A further puzzling finding was that despite the very strong Kentucky (and to a lesser degree, the Sunderland) emphasis upon effort, there appeared to be little commitment to realising this perspective in practice. Elliott *et al.* (2000) suggest a number of reasons why attributions to effort may not actually result in high work rates; generally, these centre upon the perceived value of succeeding academically. In particular, they noted the presence of an anti-academic peer culture in many American and English secondary schools in which trying hard was often perceived as an unattractive strategy.

Traditional approaches to research in achievement motivation have tended to treat such concepts as 'effort' and 'ability' as essentially non-problematic and interpreted by all in much the same way, irrespective of ethnicity or culture. However, questionnaires and surveys which operationalise key concepts unproblematically may both inhibit children's responses and provide a picture that fails to capture the importance of cultural context upon personal beliefs and meaning making (Bempechat & Drago-Seversen, 1999; Bempechat & Elliott, in press; Hufton *et al.*, in press). This was an important concern for the present research team who, frustrated by a relative inability to gain purchase upon provocative and beguiling quantitative data, decided to explore issues emerging from the achievement motivation literature and from our own survey findings in a series of relatively detailed individual interviews. Specifically, we sought to learn more about children's perceptions about how hard they felt they worked and why, and gain greater understanding about influential factors impacting upon academic self-perceptions and expectations. Noting the widespread tendency in the achievement motivation literature to employ dichotomous constructs (Bempechat & Drago-Seversen, 1999), we sought to explore student understandings of effort and ability in ways that did not reduce these constructs to 'either/or' alternatives. In this, we were informed by the suggestion that ability can either be construed as talent or skill that is underpinned both by natural ability and by effort, or, alternatively, construed as innate capacity (Nicholls, 1984, 1989). We were interested to learn more about peer relationships and how these might impact upon one's willingness to work hard. Finally, we sought to learn more about the value placed upon being educated as an end in itself and the ways by which children's current motivations and aspirations for the future were conditioned by particular sets of social and economic circumstances.

Method

Sample

In order to build upon Elliott *et al.*'s (1999) study of adolescents, this follow-up investigation, undertaken some 2 years later, returned to some of the schools employed in the earlier study and interviewed children of the same age. One hundred and forty-four children (72 boys, 72 girls), all of whom attained their fifteenth birthday during the academic year of the investigation, were selected. Students were selected at random from school registers by members of the research team and allocated (in equal proportions of gender and nationality) to one of three teacher-determined academic groupings: above average, average or below average. If a pupil was allocated to a group that was already 'full', another individual was selected in their place. Each group was designed to have an equal number of pupils in order to ensure that responses

reflected the full range of ability in the school. All pupils were asked by their teachers, and subsequently by the researchers, if they were willing to take part in the survey. Only those who agreed, almost everyone who was approached, were included in the sample.

Students in Sunderland were drawn from one independent and three state comprehensive schools, selected to reflect differing levels of General Certificate of Secondary Education (GCSE) examination performance. Here we were seeking to ensure that our sample matched as closely as possible that used in our earlier (1999) study. One school was Roman Catholic; the others were non-denominational. Kentucky pupils were drawn from the same three high schools as made up the total sample in the earlier study. These schools, serving a predominantly rural region, perform close to the state mean in state-wide mandatory tests of academic achievement. The St Petersburg pupils were drawn from four schools in the city of St Petersburg, one of which was a gymnasium which both selected from its comprehensive local intake, and also recruited selected additional pupils, to form a higher achieving gymnasium stream. While Russian schools tend to be largely comprehensive in their socio-economic intakes, it was possible to select one school where more pupils were rather more economically disadvantaged and another (the gymnasium) which catered for a higher than average proportion of pupils from wealthier families.

Procedure

Members of the research team at the University of Sunderland (UK), Morehead State University (Kentucky, USA) and Herten State Pedagogical University (St Petersburg, Russian Federation) collaborated in the design of a semi-structured interview schedule that was employed with all pupils. The four key issues of satisfaction, effort-ability attributions, peer influence and the valuing of education, identified in our earlier (1999, 2001a) survey studies, were at the heart of many of the questions. More specifically, these explored such issues as the nature of the pupils' school day, homework and the use of leisure time, their orientation towards learning and work, relationships with peers, self-perceptions of ability and work rate, the relative importance of ability and working hard with regard to performance, the perceived value of education, and future vocational and life goals. We asked each pupil about their academic progress and grades and, in the light of such data, endeavoured to make judgements as to how realistic their satisfactions and aspirations appeared to be (NB: although potentially valuable, we were not in a position to gather additional data from other sources, such as teachers or parents, as a means of validating pupil reports). As well as covering the issues in the schedule, the team encouraged respondents to elaborate on and develop from initial answers so that these could be better set in context. The interview schedule, and guidance, are included as Appendix A.

An interesting aspect of the study was the team's decision to use non-native members for the interviews. Thus, for example, members of the Russian and American team interviewed the Sunderland pupils. A strength of this approach was that, because common understandings could not be assumed by either party, it was possible to ask 'naïve' questions that sought to gain greater purchase upon pupils' perceptions and values. For example, it was possible for an English researcher to question an American pupil about being a 'jock' or a 'nerd' and receive a patient and detailed explanation of the meaning and impact of such terms upon pupils. Furthermore, pupils appeared reassured by the opportunities for anonymity that this procedure offered.

The two Russian interviewers who assisted in the design of the interview schedule had

been closely involved in the design and undertaking of earlier stages of the project and were both fluent in English. These individuals also served as interpreters for the interviews with the Russian children. The research team recognised the difficulties involved, in particular, problems of maintaining rapport and spontaneity in the interviews, yet pilot interviews suggested that the pupils could cope with such a procedure and that the potential gains outweighed any difficulties. All interviews were, with the full permission of the pupils, tape-recorded and transcribed.

Analysis

Because the St Petersburg interviews had been conducted through interpreters, and thus, allusive references and nuances in the pupils' responses were potentially insecurely reported, no attempt was made to analyse any of the transcripts—from any centre—at the level of discourse analysis. The transcripts were 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 the qualitative analytic software package, *The Ethnograph*, v. 5.06. In this research, the main use of this package was to enable 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 surfacing 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 pupils from one culture to mention something regularly mentioned in another may also be perceived as valuable data.

A final feature of the analysis is that the reading of transcripts has been cross-culturally shared amongst members of the research team, so that reported inferences, including those in this article, are the outcome of discussion and agreement across the team.

Results

Satisfaction with Current Performance

Survey findings reported by Elliott *et al.* (1999, 2001a) were closely mirrored by our interview respondents. In relation to their current performance, the Kentucky pupils expressed the greatest overall level of self-satisfaction with both work rate and achievements and the St Petersburg pupils the least, with the Sunderland pupils falling between, but nearer the St Petersburg end of the spectrum.

It has frequently been suggested that higher self-perceptions and satisfactions will pertain where demands are limited and teacher affirmation is high (Damon, 1995). Certainly, this is rarely a charge made of Russian classrooms, and the demanding expectations of Russian teachers and parents that students should be highly disciplined and work hard, both at school and at home, is a frequent theme in the literature (Muckle, 1988, 1990; Glowka, 1995). Indeed, as Alexander (2000, p. 185) points out, even the very layout of the Russian primary school classroom suggests that it is a place for hard work. In contrast, American primary school classrooms led Alexander to question whether they were places: 'for work, for play, for worship, or

for rest and relaxation?’ (p. 185). To a considerable degree, our St Petersburg informants indicated that they responded to external demands by maintaining high concentration in the classroom, by putting in modally around 17 hours, within a central range from 10 to 27 hours, of additional private study each week and by sharing the task of learning, in and out of the class, to the point where, for the majority, it was probably the major focus of their shared, peer, as well as their individual, lives. Although some aspired to be permitted more specialisation in areas of interest, or potential future relevance, the great majority of pupils accepted the prescribed lack of choice and attempted to meet the overall demand of what Holmes *et al.* (1995, p. 10) have called an ‘encyclopaedic’ curriculum. St Petersburg pupils’ lower sense of self-satisfaction in achievement appeared to be related quite strongly both to their overall performance, in which there were inevitably some weaknesses, to the high demand of the curriculum, which always left scope for improvement and to the directly inspectable relative achievement of the most successful of their mixed-ability classmates.

In the Sunderland case, it was clear that, although a much more recent innovation than the St Petersburg curriculum, the prescribed National Curriculum was beginning to define a similarly ‘encyclopaedic’ demand against which more pupils were starting to evaluate themselves. That is, averagely successful pupils expressed anxieties about doing well across the whole range of the curriculum and not merely in terms of preferred subjects: ‘It is really important because it goes towards your national curriculum and your job and your record’ (Sunderland pupil). However, the Sunderland experience seemed much more patchy. Not only did there appear to be lesser overall formal demand, but the volume and depth of engagement with private study, and the sharing of study concerns with peers, appeared to be much more a matter of pupil initiative, and parental influence, than was found to be the case in St Petersburg. Thus, there was a minority of Sunderland pupils in each of the schools who sought to concentrate in class and followed this up by spending long study hours in out-of-school time, but this was not the norm. Equally, whilst the response of this minority was perceived as highly valued and publicly celebrated by their teachers and schools, it was obviously not expected, to the same degree, by all schools, or within schools, of all pupils. On the basis of pupil reports, it seemed that there were different levels of expectation for homework between schools, and of more relaxed attitudes about the amount and completion of homework with some pupil groups. Modally, around 10 hours were devoted to homework each week, within a central range from about 4, to about 22 hours. Additionally, as reported by the majority of Sunderland pupils, there was a range of task-orientation in class, from sustained and concentrated attention, which was rare, through varying amounts of accepted, or tolerated off-task peer interaction, which seemed to be the norm— ‘Sometimes, I carry on with my friends in the class and don’t get finished, then we come into the lesson again, I don’t know what I am doing’ (Sunderland pupil)— to more or less frequent task interruption, by a minority of pupils, which, depending on the popularity of the disrupter and respect for the teacher, was found either annoying, or attractively seditious by their fellows.

In the Sunderland schools, pupils’ satisfaction with their achievement was significantly less governed by relation to a prescribed curriculum than in St Petersburg. Other things being equal, overall self-satisfaction may be expected to be higher where the permitted curriculum allows pupils to avoid subjects in which they do less well. Attainment relative to national levels and across the National Curriculum range was beginning to be a factor in pupils’ self-assessment, but this was partially attenuated by the possibility of some choice and specialisation at 14 + years. Also, for Sunderland

pupils, school- and community-mediated variables remained more important. Pupils were more likely to be satisfied if they were maintaining an average, or higher, position in their ability-grouped classes, or if their achievements were acceptable to their parents and within some normative range amongst their friends. As a result, they appeared to be generally more satisfied with comparatively lower achievement than the St Petersburg pupils.

For the Kentucky pupils, there was a still smaller prescribed element of the curriculum, with a great deal more unprescribed time available within which to exercise choice across a wider range than in Sunderland. American commentators (e.g. Sykes, 1995) have derided the opportunities provided to US students to avoid more demanding academic subjects, and have suggested that the 'dumbing down' of academic demands (Shen & Pedulla, 2000), together with continuing grade inflation (Ziomek & Svec, 1997; Zirkel, 1999), may result in unrealistic satisfactions. As Lundeberg *et al.* (2000) observe: 'Inappropriate judgements of confidence may interfere with students' recognition of their need to improve their achievement' (p. 152). Kentucky pupils had the greatest opportunity to compose a programme made up of less academically demanding elements, with the resulting possibility of greater success and, thus, self-satisfaction. The prescribed amount, level and pace of work was also lower than in either St Petersburg or Sunderland and this was reflected both in classroom practice and in expectations of private study outside school. Our informants stated that teachers allowed for a lower commitment to study in class on Mondays, after, and Fridays, before, the weekend. In this respect, the following statements by Kentucky students echoed those of many:

'From what I see, people work the hardest probably on Tuesday and Wednesday ... Cause on Monday, they're like, "Oh man, we're back to school". And Tuesday and Wednesday, they're like, "We're here, we might as well do it". And Thursday, they're like, "Oh, it's gonna be the weekend in like two days", and Friday, they're like, "I don't have to do anything".

'We don't do very much work on Fridays cause they ... [the teachers] ... don't want to go home and grade the papers and stuff during the weekend'.

'No one does anything on Fridays.... Friday's just like the relax day. I mean you might take a test or two, but you chill out'.

'[On] ... Friday they don't hardly make us work since it's the weekend and getting off. They don't much like us to have homework on weekends ... only if we're bad in class, they'll give us homework.

In contrast, while Russian respondents acknowledged that curricular timetabling meant that some days were more intellectually demanding than others, they consistently rejected any suggestion that certain days were less productive because of where they fell during the week.

Out-of-school learning demands in Kentucky were also the lowest of the three countries. Amongst those who did regular schoolwork at home, other than occasional higher-demand tasks such as 'projects', the modal time given to tasks each week was around 8 hours, within a central range from a few minutes to about 15 hours. About a third of pupils reported being able to complete most normally set homework tasks during classtime or tutorial periods within the school day. This obtained as much for pupils reporting higher grades as for the less successful. A common tendency for homework to be undertaken during teaching time in the USA is a phenomenon that has also been noted in other comparative studies (e.g. Stevenson & Nerison-Low, 1998; Martin *et al.*, 2000)

and may partially reflect differences concerning the perceived function of homework. In the USA, practice activities for consolidating learning are often an integral part of the lesson (Stigler & Hiebert, 1999) while for Russian children, these are largely the preserve of homework (Hufton & Elliott, 2000).

The Importance of Effort/Ability

Attribution theory (Weiner, 1979) suggests that where the individual attributes success or failure to personal characteristics under their control, motivation to persist is likely to be enhanced. In contrast, where performance is perceived as being due to external factors (e.g. luck) or internal factors that cannot be controlled (e.g. natural ability), one may be less likely to persevere, particularly in cases of failure. While the theory is limited to the extent that it does not provide insights into what it is that leads one to seek to achieve academically in the first place (Molden & Dweck, 2000), it does help explain why one may choose to persevere with a specific activity. In this respect, it has been widely argued that an emphasis upon ability, rather than effort, can explain lower levels of engagement, persistence and achievement in England and the USA, in comparison to many high performing Asian countries (Stevenson & Stigler, 1992; Reynolds & Farrell, 1996).

In all three centres, the great majority of pupils attached greater importance to effort than to ability as a means of general achievement in school. The St Petersburg pupils, however, generally thought that some definite talent for a subject was needed to obtain the highest marks, but this was against a background where they both believed effort to be very important and also normally made very substantial efforts.

I think to work hard is more important. I know some people—when they were 11, they were considered to be very clever, but at the end of Year 9 they had all threes in their certificates. But of course, if there is no brain—just working hard can't get you excellent results. Though, I think one will be able to get all '4s' [on a 5 point scale] still. (St Petersburg pupil)

However, an apparent concurrence on the primacy of effort concealed real differences of emphasis and meaning. There were major differences in the volume of effort between the three centres. St Petersburg pupils expected to concentrate hard in lessons for between 4 and 5 hours a day (often 6, rather than 5, days a week) and then do 3 or so hours' homework a night and perhaps 4 or more hours over a weekend. A few Sunderland pupils came close to matching these efforts, but for the great majority, there was significantly less task orientation during the 4–5 hours of the school day and a little better than half the effort devoted to homework. As noted earlier, the Kentucky pupils had the least demanding classroom day and did the least homework.

The St Petersburg pupils gave the least time to recreational pursuits and these principally involved walking in the neighbourhood with friends, or watching some television, for about an hour in all, and, at weekends, walking in the city centre with friends, or going into the country, or to the *dacha* with family. About half the St Petersburg pupils took some extra evening class in a school subject, or an area of cultural interest.

Meeting friends in the evening and watching television were also Sunderland pursuits, but these were likely to occupy between 2 and 3 hours an evening. Many boys met friends to kick a foot ball about, whilst girls were more likely to meet and talk. Friday and Saturday were 'entertainment' nights, for visiting cinemas, youth clubs

and discotheques. However, these were not frequent activities. More commonly, pupils reported going with friends to hang out in a large shopping mall about 10 miles from Sunderland.

Kentucky pupils were the most likely to occupy evenings and weekends with recreation. For many pupils, participating in, or supporting, school-organised sports occupied 3 or more hours of several evenings each week. For those who lived away from towns, driving four-wheeler 'quad bikes', hunting and other rural pursuits occupied much out-of-school time. For a number, at weekends, there were parties and visits to cinemas. Many Kentucky pupils also attended churches on Sunday mornings and some were involved with church activities on Sunday afternoons.

Thus, as well as differences in the volume of schoolwork, there were also differences in the construal of work and non-work time. In Russia, work seemed to be contrasted with rest, which was seen as a necessary relaxation and restorative between bouts of hard work. In the UK, and even more the USA, work was seen more as a means to the end of a good life, within which a rich and interesting leisure was prized. Many of our informants observed that their parents worked hard to secure the best lifestyle that they could afford and saw leisure as a benefit that they had earned for their children.

The Sunderland and Kentucky pupils were more likely than the St Petersburg pupils to see effort as morally superior to ability. That is, they preferred effort because they thought it merited recognition and took satisfaction in having done their best, whether actually rewarded or not by teachers.

I would try my hardest but if I didn't quite make it at least I could say that I tried hard. (Sunderland pupil)

The way I look at it, as long as you try hard, then you've tried, that's all you can do to the best of your ability. (Kentucky pupil)

Though something of the same attitude characterised St Petersburg pupils, they tended more to take the need for effort as granted, so that it was rather the lack of it that might be morally suspect.

Nothing any of the pupils said, in any centre, could be interpreted as their expressing a view of ability as fixed potential. Many of the Kentucky and the St Petersburg pupils thought that effort could get you good grades or marks, which they took to count as an unproblematic indicator of ability. Beyond that, the St Petersburg pupils thought that they, or their fellows, could have a specific 'talent', which increased their likelihood of excelling in a subject, if they also worked, whereas the Kentucky pupils recognised some as 'smarter' than others, though this did not necessarily relate to school performance, where being 'book smart' was not especially esteemed. The Sunderland pupils, all of whom were in streamed classes, were more likely to express a view about their, or their fellows' general ability, but even here, effort was regarded as more influential for achievement. In all centres, the pupils saw ability as more performative than innate.

The St Petersburg pupils took this further. They were more likely than either the Kentucky or Sunderland pupils to see ability as an outcome of effort. They saw sustained study as likely to develop and deepen their understanding and raise their performance. They also saw ability as something that could be developed by teaching: 'you will be taught at school how to do well' (St Petersburg pupil). It is important to note that the present study only examined the attributions of pupils. Clearly, those of teachers and parents are likely to be highly influential in shaping pupils' own understandings (Stevenson & Stigler, 1992), and indeed, in influencing teacher practices and expectations. However, recent studies suggest that the belief that American teachers and parents

emphasise fixed ability may be erroneous. For example, in a case study analysis of TIMSS data (Stevenson & Nerison-Low, 1998), American teachers, parents and students acknowledged differences in academic ability yet, rather than seeing these as innate, tended to consider them as being determined by such factors such as family stability and support. Subsequently, findings from the recent TIMSS repeat assessments, undertaken in 1999, indicated that US teachers were far less likely than those in the Russian Federation, or to a lesser extent England, to agree with the suggestion that some students had a natural talent for science while others did not (Martin *et al.*, 2000). Similarly, in a recent study (Elliott *et al.*, 2001b), we found that a significantly higher proportion of Kentucky and Sunderland parents emphasised effort as key to academic success. Such studies suggest that there may have been confusion in the past between ability as something that is fixed at birth and that which is developed over time.

The Influence of Peers

Attitudes to fellow pupils who worked hard and did well in studies varied quite markedly between the three centres. In St Petersburg, pupils who achieved highly were respected and regarded both as an adornment by their class and as an asset to their fellows. Those who had grasped a subject were expected to help classmates with their studies, working through and explaining problems and points of difficulty and giving practical study advice from a pupil's point of view. They were granted admiration, liking and status, providing their help was willing, friendly and unassuming. There was no evidence that their success attracted hostility. Other pupils aimed to emulate them as far as they could and displayed equal concern to help each other to succeed, in class and in out-of-school peer tutoring. In St Petersburg, peer influence was generally perceived to be actively pro-learning and pro-study. This may help to explain why class disruption is normally rare, brief and minor (Elliott *et al.*, 1999, 2001; Alexander, 2000). In general, our informants offered a picture of a class that shared precepts of propriety and due behaviour with the teacher. Within an accepted framework, they saw themselves cooperating amongst themselves, and with the teacher, in engaging with the demands of learning. Though St Petersburg pupils commented adversely on the occasional teacher who used their position to make negative personal remarks, and could sometimes make an issue of this, they were compliant with less than charismatic teachers who were perceived as pedagogically adequate. If these 15-year-olds were influenced by any wider adolescent peer counter-culture, it had not so far, at least on the basis of their interview statements, impacted on their response to schooling.

In rather sharp contrast, in both Kentucky and Sunderland, pupils had pejorative names for hardworking and successful classmates—'swots' in Sunderland and 'nerds' in Kentucky. The quite prevalent use of these terms exemplified the extent to which, in both centres, the class peer group set both learning and behavioural norms, which were often at variance with those desired by teachers and conducive to efficient and effective learning.

'Swots' and 'nerds' had in common high levels of application to study which were resented as throwing a relatively poor light on other pupils' efforts and achievements. However, in ways that reflected an important difference between the out-of-school peer culture in the two centres, it was more problematic to be a 'nerd' than to be a 'swot'. Though swots were seen as set apart in class and sometimes in their year group and might attract derision and sometimes physical aggression from some fellow pupils out of lessons, they were not construed more generally as misfits, beyond their undermining predilection for study. This reflected both a permitted diversity in the wider English

adolescent peer culture and a relative freedom from domination by the norms of out-of-school 'in-crowds'.

Nerds were not only seen to be excessively serious about study, sometimes pursuing unusual intellectual interests and enthusiasms, but crucially, they misread, were indifferent to, or were perceived as slighting, norms of dress, behaviour, style and adulation in the wider peer culture. Though, like swots, they could come in for derision and aggression in school, they were also more likely to be seen as apart from adolescent collective social activity.

I'm not friends with them, not because [they're nerds] ... but just because they don't do the same things as me. I like people who are involved ... I like people I see in a lot of my activities. I'm involved in a lot of organisations. So I'm friends with a lot of the other busy people. So I don't really talk to people that just sit at home and you know, read the encyclopaedia, or sit on the computer all day. (Kentucky pupil)

Pupils perceived 'swot' and 'nerd' as negative labels within peer norms which were counter-cultural, relative to schooling. In both cultures, it was normative for pupils to adopt the role of unwilling learners and to try to undermine the efforts of teachers to set and maintain the direction and pace of learning: 'Most people, like, they think it's cool to be bad, I would think. They think it's neat to be bad' (Kentucky pupil).

Many middle-achieving pupils seemed habituated into delaying getting started and diverting into off-task talk and activity, not perceiving these as undermining, if carried on quietly. Where teachers sought to counter this perception, they had to exert considerable leadership, or they risked opening the way for challenging or disaffected pupils to initiate noisier and more hostile disruption.

If the whole class just carries on and someone is not very nice to the teacher or something, then one person is going to end up joining in with them and they are not just going to do the work, like a herd of sheep they all follow. (Sunderland pupil)

However, if it was a norm to evade, or resist, teacher control, it was also a peer norm that teachers should be able to control their classes and those who did so with a forceful impersonality were respected as 'strict'. In effect, Sunderland and Kentucky pupils saw it as the teacher's role finally to ensure academic engagement, but also, and importantly, mostly construed learning—in its fuller sense—as something which teachers enforced.

In both the USA and the UK, pupils were much more subject to the attractions of an out-of-school youth peer culture than in St Petersburg. Not only did this compete against homework for their time, but it offered an alternative means of status, through participation in peer social life, sharing youth cultural icons and consumership of fashionable goods. It also reinforced the peer counter-culture, accentuating and validating differences in cultural interests and widening the generation gap between teachers and taught. In Kentucky, much more than in Sunderland, schools sought to affiliate adolescents to their schools through a wide range of activities centring on competitive sports, but though these provided an alternative means of peer prestige, they did not, in themselves, appear to encourage pro-attitudes to learning or education. Indeed, on occasions, such a preoccupation appeared to militate against achievement.

Usually, we didn't have any homework unless it was a project or a paper, because we had a 45 minute study period. And it was at the end of the day, and we had 45 minutes and it was to do all your homework ... for the kids

who played sports and stuff. Like, well, everybody got it, but it was a big help to those who played sports because that way, you wouldn't have to worry, like if you had practice or you had a game or something, you wouldn't have to worry about it. We basically got all our homework done during that time. (Kentucky pupil)

When one student was asked how he could spend every night playing or watching sports (and during the basketball season rise at 4.30 am for early morning practices) or dating, have only 5–6 hours sleep, yet still get a high number of A grades, he replied:

The teachers take it easy on us, with the sports. They don't give us a lot. Like game days, we don't have any homework. Or, like this school's really big on football, and they're really big on the key players, so they kinda take it easy on us, really.

The Value of Education and of Being Educated

It was clear that, like probably most adolescents the world over, our informants rarely found challenging academic study (particularly homework) intrinsically enjoyable. However, extrinsic motivation also has a significance influence upon performance, particularly where the individual identifies with the personal importance of behaviours concerned and perceives them as congruent with their wider value system (Ryan & Deci, 2000). Our interviews suggested that such congruence was a particular feature of the Russian context.

Elliott *et al.* (1999) found that Russian children appeared to see education as an important end in itself, not merely an instrumental means of obtaining wealth. Whereas survey informants in St Petersburg cited 'being an educated person' as the most important reason for working hard on schoolwork, children in Sunderland and Kentucky stressed the need to get qualifications, and, thus, achieve a better form of employment. In our follow-up interviews, however, most pupils in all three countries similarly emphasised that education was important in securing a place in college and, subsequently, future employment. In each country, their comments evidenced a realistic, underlying awareness that they would be competing in adverse labour markets and that their level of education was likely to affect their future income, security and lifestyle.

I need it to get to higher education. If I don't have enough secondary education, I won't be able to get to the University. (St Petersburg pupil)

... if you have good grades you get into a good college, get better education, have a better job, and life I would think (Kentucky pupil)

The better marks that you get the better exam result you get which means more universities are willing to take you, the better marks you get. (Sunderland pupil)

In each location, the majority of respondents expressed the opinion that educational failure would generally have undesirable consequences. However, there were important differences between the three sets of informants. The St Petersburg pupils equated educational success with doing as well as possible across the curriculum. They assumed there to be a fairly direct relationship between overall success in school, the prestige of subsequent further, or higher, education and the obtainability and attractiveness of later employment (NB: there is, however, some evidence, both from our interviews, and from the literature, that students in Russia are beginning to polarise into two groupings; those

who seek to pursue university courses in modern languages, law or finance as these hold the promise of greater wealth, and others, largely interested in arts, humanities and social sciences, who perceive that higher education will not necessarily bring greater economic rewards [Rutkevich, 2000]). Security and the possibility of a decent life was, however, the immediate goal of the great majority. Although many were able to nominate possible future careers, for which some subjects might be more, and others less, relevant, career hopes did not seem to 'reach back' to influence subject preferences, or study priorities.

In our interviews with the St Petersburg students, the frequently stated importance of being an 'educated person' echoed our earlier surveys. Despite suggestions that Russian children have become increasingly materialistic (Ol'shanskii *et al.*, 2000; Popov and Kondrat'eva, 2000), such an emphasis did not emerge strongly in our data. A tendency to value education as something of intrinsic worth, rather than merely a means to an end, and the continuing esteem placed upon being 'cultured'—for instance, 'I may be upset if I see that a student can't give a good answer; well I feel offended for him. I also don't like ... well, it doesn't happen in my class ... when one can't say something very basic, like the dates of Pushkin's birth and death—I mean it is ridiculous if you don't know that at the age of 15'—may help to explain the fact that, despite the continuing threat to Russian education caused by such factors as mounting levels of ill health (Baranov, 1998), a breakdown of traditional values (Lisovskii, 1999) and economic instability (Chuprov & Zubok, 1997), Russian children continue to work comparatively hard and their schools appear to be relative havens of normality that exercise an important stabilising function (Hufton & Elliott, 2000; Alexander, 2000). Indeed, in our interviews, we found no evidence that external social and economic turbulence had impacted discernibly upon life in schools. While a new generation of Russian schoolchildren may increasingly reappraise traditional values, most of our informants strongly resisted claims that wealth was more important than scholarship. In each location, for example, students were asked how they would respond to exhortations that they should leave school and seek early employment. While many of the Russian children linked higher education with prestigious employment, the majority stressed that material wealth was not the most important thing in life:

I don't know how it is in England, but here a lot of educated people—teachers, doctors, scientists do not have wealthy lives. This is upsetting to me. Some people observing this may think, 'What do I need education for?—I'll live better without it'. Well, for me now, education is obligatory. I wouldn't be able to live without it. I need a sort of spiritual thing to live on. The sort of life when you are rich and not educated—I think that this can't satisfy me.

I think you still need education, well, for yourself, to know something, to study history, to know your country better, to have some vision of the world.

I personally think that money is not something to value. In this world it is more important to build your personality. I would think that you haven't reached your potential. The main things in life are family atmosphere and good friends.

A man doesn't live for money only ... something else is also important. Well, spiritual values, a soul ... not only material things.

[Being educated] ... is more than important. It may be the aim of life.

It is good to talk with the educated person.

While similarly dismissing the suggestion that one should leave school early, no Sunderland or Kentucky 15-year-old spoke in these terms. Some expressed enjoyment of

some subjects, or aspects, for their own sake, but for these pupils, like the rest of their peers, the general value they set upon education was variously utilitarian. Of the three groups, the Kentucky pupils were most strident in their rejections:

I'd say you're crazy because how, I mean, sure you could work someplace ... McDonalds or some rinky dink old place, but you're not going to make that much money. And you're going to spend all your time in this one place, and for not a lot. I mean, you're not going to get a lot of joy out of it.

I'd say, more than likely, 'You're not gonna make it' ... Cause there's not a whole lotta, there ain't very many jobs left that you wouldn't need education ... maybe digging a ditch or something ... digging a hole ... be about it.

I would tell them in a nice way that they were crazy ... There's this one girl I used to have friends with ... Her parents just do odd jobs like yard sales and stuff ... And they're constantly needing money. So you have to get an education in order to get a job ... you can't live off the money that you get from working at McDonalds or something like that. That's minimum wage ...

In order to get ... a good job, you've got to have a really good education.

The Sunderland picture was the most complex. Sunderland pupils, including those in private education, were much influenced by the poor employment situation in their essentially urban region and also by the English National Curriculum and its assessment. These created a climate largely favouring a type of vicarious utilitarianism. Those pupils who perceived themselves as sufficiently successful in relation to their ambitions, whether these were high or modest, largely accepted the National Curriculum as defining 'education', internalised its implied values and worked to comply with its requirements. These pupils accepted schooling as helping them to become useful, or saleable, in relation to their various levels of aspiration, in future labour market.

I want to make sure that I can get a good job when I leave school, so I work hard now, so I can get the qualifications I need, so I have a chance when I get older.

If you get a good education you get good exam results at the end of it. Then you can go and get a good job.

A second type of response—pragmatic utilitarianism—was more often expressed by less academically successful pupils, who seemed unsure that they could become sufficiently useful by way of schooling to compete for any employment they desired. Though they were often not satisfied with their overall achievement, these pupils discounted the relevance, or importance, of areas of weakness and rather selected and focused commitment on any areas of relative personal, or subject, strength which they hoped—with greater or lesser realism—might recommend them in seeking paid work.

If, in general, the value set upon education in Sunderland was dominated by vicarious utilitarianism, in Kentucky, the value climate was less complexly one of pragmatic utilitarianism. Though unemployment was an issue in the state, it did not dominate pupils' talk as much as in Sunderland. As noted earlier, pupils expressed much more concern about obtaining reasonably desirable and well-paid employment, which they contrasted with 'dead-end' jobs, such as 'serving gas' and 'flipping burgers'. The Kentucky curriculum mandated only a small core of compulsory subjects, permitted a relaxed learning rate and, alongside utilitarian concerns, was in some measure open to liberal humanistic claims in the non-compulsory balance of the curriculum. Until recently, much employment in this rural state had not necessitated levels of education

beyond high school graduation and, for a minority, elementary education had provided a sufficient foundation for any further development through life experience. Many now, encouraged by their parents, felt a need to gain more education than the previous generation, as a means of greater security and prosperity. This reflected the modernising rhetoric of the 1990 Kentucky Education Reform Act and the recently coined State Education Department motto, 'Education Pays'. However, where there was a desire for more education, this seemed uninformed either by some overall concept of becoming 'educated', or by state guidance about curriculum priorities, beyond the core of 'basics'. For a minority of pupils, but a majority of those, mostly from professional families, who valued education the most highly, becoming educated was a matter of specialising in an area of interest and following it up privately, or with like-minded friends. A few pupils, from rural and small farming backgrounds, however, saw little need for much education beyond the basics. As one informant stated: 'Don't do you to learn all this bunch of gunk, you know ... all you need to learn is to read and write'. (NB: the low regard for advanced education held by this small group of rurally-situated students confirms other studies such as those of Wilson *et al.* [1997] and Peters *et al.* [1986]. These writers describe the conflict, for rural Appalachian youth, between messages that formal education is a route to success and traditional values less oriented toward social mobility. Deyoung [1994] also notes that the very close family and community bonds often found in many US rural communities may not sit easily with the academic credentialism and individualism of modern US schooling.) In general, education for these individuals seemed to be intrinsically valued just to the extent that it could help pupils to become and be recognised as 'smart', that is, able to handle themselves advantageously in social situations and achieve their life goals, whilst retaining good personal relationships. However, becoming 'smart' went wider than this and, for some, did not involve much of the 'book-smartness' that might be gained through schooling. For the great majority of pupils, getting an education meant gaining good enough grades, partly by strategic choice of programme, to give them a good transcript at school graduation and open the way to desirable employment, for a majority by way of higher education.

Of the three groups, the St Petersburg pupils were the most, and the Kentucky pupils the least likely to equate 'education' with the sum of what was taught in school. Sunderland pupils were the more, and Kentucky pupils the most eclectic in relation to what they were taught. No St Petersburg pupil offered any kind of critique of schooling from the point of view of personal preparation for life. Only a minority of Sunderland pupils implied such a critique, but then mostly defensively, discounting the relevance of areas of poorer performance in school. By contrast, many Kentucky pupils assumed as normative that they should take from schooling what was personally valuable.

Discussion

Many commentators (e.g., Stevenson *et al.*, 1990; Stevenson & Stigler, 1992; Damon, 1995) have pointed to a relationship between high levels of self-satisfaction in the USA and correspondingly lowered expectations and work rates. Accordingly, they have argued that more 'realistic' appraisals are necessary. The issue is complex, however, as many note the importance of self-esteem and cite studies showing a strong positive relationship between self-perceptions and academic performance (Martin & Debus, 1998; Marsh & Yeung, 1997). While it is clear that low levels of self-esteem and

self-efficacy are likely to be debilitating, a society that accentuates the positive in a non-contingent fashion may devalue the exhortation to the point that its function ceases to be motivating and instead becomes 'merely phatic' (Alexander, 2000, p. 369). In this respect, it is interesting to note that the relationship between self-perception and academic achievement is inverse when between (rather than within) country comparisons are undertaken (Shen & Pedulla, 2000).

Reform efforts in the USA and England have placed heavy responsibility upon schools to raise achievement (cf. Barber, 2000) yet it is unclear to what extent this can be achieved in relative isolation from the operation of wider value systems (see, for example, Elliott *et al.* [2001b] for evidence of parental perspectives that closely mirror those of their children). As Steinberg (1996) comments, no curricular or pedagogic reforms will have impact unless children come to school interested in, and committed to, learning. Given the American (and to a lesser extent, wider Anglo-Saxon) tendency for high levels of positive self-regard in all spheres of functioning (Heine *et al.*, 1999) it is difficult to determine the relative influence of broader cultural conceptions of how we see ourselves and the narrower impact of particular educational practices upon academic self-perceptions. Clearly, messages from teachers about one's performance are likely to be highly influential and it appears likely that many students in England and the USA are conditioned by overly positive teacher evaluations (Elliott *et al.*, 2001a). It appeared that student satisfaction with their academic performance tended to be influenced both by grouping, curricular and assessment practices (that were reasonably susceptible to manipulation) and by its relationship to perceived vocational opportunities (that were perhaps less so). School practices, however, are often highly resistant to external manipulation as they tend to reflect underlying beliefs and values. Here we are in close agreement with Alexander (2000, pp. 29–30), who points out the folly of those who endeavour to separate out the cultural from the educational.

Findings from the present investigation are able to shed light on a number of aspects from our earlier survey work, for example, demonstrating the misleading nature of studies that have undertaken oversimplistic, dichotomous effort/ability analyses. The apparently puzzling tendency of St Petersburg teenagers to prioritise ability (Elliott *et al.*, 1999) is now made clearer when their understandings of such constructs are explored in greater depth. Our interviews demonstrated that strong importance was attached to effort by St Petersburg children but they also highlighted their tendency to take it for granted. As both Elliott *et al.* (in preparation) and Alexander (2000) have noted, in home and school contexts where hard work is the norm, individual differences in ability may be a more salient and discriminating factor. However, during the interviews it also became apparent that the children often conceived ability as being essentially subject-specific and performative; that is, more akin to a skill that is determined by effort and teaching, rather than innate (Nicholls, 1984, 1989) or general.

The strong emphasis placed upon effort by the Sunderland and Kentucky pupils in our 1999 study had been contrary to our expectations, given the extant literature. In setting up the interviews, therefore, we sought to revisit this issue and gain greater understanding about the nature of children's attributions. Our interview data, strongly reflecting our survey findings, support those who have more recently challenged the widespread perception that children in Anglo-Saxon cultures are hampered by their belief in fixed ability. However, the interviews, particularly in the USA, often demonstrated an incongruity between a stated belief in the importance of effort and the actual work rate at home and at school, that they reported. This paradox did not appear to be perceived

by our informants, perhaps largely because the majority actually appeared to believe that they *were* working hard. Almost two decades after the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983), in which the need for American youth to work longer and harder was spelled out, it would appear that little has changed. Given an education system where demands are often not excessive, one's perceptions of what constitutes hard work may be very different to those from other cultures. Furthermore, as Elliott (1998) notes, attributions are unlikely to influence behaviour unless they apply to outcomes that are valued. In contexts where, for many children, working significantly harder does not hold the promise of greatly improved employment, where negative peer pressures and wider anti-intellectual values persist, it is unsurprising that Kentucky and Sunderland students are often unprepared to go beyond that which is demanded of them. As a result, a degree of cognitive dissonance might not prove overly problematic.

The powerful influence of peers has, to some extent, been neglected by motivation researchers (Ryan, 2000), although is now receiving growing attention (Juvonen & Nishina, 1997; Wentzel, 1999). Our own interviews exploring peer relationships in the three countries confirmed many of the findings from other comparative studies involving these three countries (Bronfenbrenner, 1967; Elliott *et al.*, 1999, 2001a; Alexander, 1999, 2000) in which Russian peers tended to promote behaviour desired by parents and teachers. In his study of 12 year-olds in the USA and the Soviet Union, for example, Bronfenbrenner (1967) found that Russian children were less responsive to peer encouragement to engage in antisocial activities and more likely to accede to adult standards of behaviour. Bronfenbrenner observed that the role of the peer group in the USSR was not, as in the USA, left to chance but rather was 'the result of explicit policy and practice' (p. 206) and used as a means of socialisation geared to encouraging identification with adult values.

Clearly, the positive influence of St Petersburg peers and the more negative impact of Kentucky and Sunderland classmates are likely to have a significant bearing upon academic attainment. While effortless academic success was looked favourably upon by many of the English and American children, trying too hard was seen in a poor light. To be seen to work too hard, and succeeding, particularly where this reduced engagement in other adolescent pursuits, threatened one with the risk of condemnation, even if this did not lead to being labelled a 'geek', a 'swot' or a 'nerd'. To work hard, and fail, was to run the risk of appearing incompetent (cf. Covington, 1992). Thus, the dangers of isolating oneself as overly enthusiastic, and being labelled pejoratively as a result, appeared to be very real constraints upon student behaviour.

It is, however, not yet possible to draw any final conclusions from the data as to why the St Petersburg peer group was pro-learning and education, whilst Sunderland and Kentucky peer groups were more resistant. It is conceivable that attitudes to schooling in Sunderland and Kentucky reflected a survival of attitudes and practices of resistance to a resented external cultural imposition, which made teachers, as its agents, 'fair game' (cf. Corrigan's [1979] study of Sunderland boys). As a result, teachers may have felt compelled, in seeking necessary empathy with pupils, to accept their anti-learning attitudes and resistant behaviour and to try to foster motivation by making learning as attractive as possible and recognising any achievement they were able to elicit. Such a strategy, effective at least in the short term, appears not to be sufficiently understood by those who condemn teachers for having low expectations, and making insufficient demands, of socially disadvantaged students.

Conclusion

The repeated TIMSS measures (Mullis *et al.*, 2000; Martin *et al.*, 2000) were greeted with dismay by many sections of the US press. In particular, it was noted that the relatively strong showing of fourth graders in 1996 had not been maintained, now that they were in eighth grade. Correspondents puzzled over reasons why state education reforms did not appear to be yielding gains. Similarly, policy-makers in England suggested that continuing relative mediocrity in mathematics would ultimately be overcome as their own educational reforms began to have greater impact. In Russia, there was a degree of relief that the comparatively high performance did not yet appear to have been adversely affected by continuing deprivations.

Perhaps the answer to increasing student motivation, engagement and, ultimately, achievement, particularly in areas of disadvantage, lies not primarily in school reform initiatives that tinker with practice, or that place greatest responsibility for learning upon teachers, but by convincing children, their families and communities that working harder will produce gains that have both meaning and value. There is, perhaps, some evidence of this, as currently, in both Kentucky, but rather more so in Sunderland, the trend seems to be to see education less as an external imposition and more as a vicariously utilitarian benefit. Whatever other problems there may be with this, at least it may have the effect of leading pupils to see teachers more as allies than adversaries. In Russia, where the curriculum and the school were common and an egalitarian approach was forcefully required of teachers, schooling seems to have been accepted as a universal good, which it would have been ungrateful, anti-social and foolish to refuse. No doubt the effects of a competitive free market in labour will continue to influence Russian attitudes to schooling (Kitaev, 1994; Chuprov & Zubok, 1997; Williams, 1997), but clear lines of evolution have yet really to emerge.

In 1989, President George Bush set a target that by the year 2000, US students would be first in the world in mathematics and science achievement. TIMSS-R has indicated, however, that performance relative to other countries has not improved substantially. Despite the massive reforms in many US states, the attitudes, beliefs and behaviours we encountered, both in our surveys and interviews, support the claims of many (Sykes, 1995; Steinberg, 1996) that little has changed. Ultimately, each society must determine its real priorities and what it is prepared to sacrifice in order to achieve them: as with dieting and body-building, there are no easy, painless routes to significant educational improvement. It is conceivable that increasing the emphasis and time spent upon a particular subject will improve a country's performance relative to others in that domain (Brown, 1998). However, we feel strong doubt that, by virtue of pedagogic reform, US and English children will come to emulate the overall achievements of the most highly achieving countries when their lifestyles and real priorities are so different. Our American informants, for example, revealed highly impressive amounts of energy, dedication, enthusiasm, commitment and huge work rates. To pursue their interests they often rose early and stayed up until late. That much of this energy was dedicated to sporting and other leisure pursuits, rather than a narrow preoccupation with schooling, was indicative of the values that were shared not only by parents and students but also, seemingly, by the school and the wider community (cf. Howley *et al.*, 1995). In contrast, the pressures experienced by many children in educationally high achieving countries are widely reported. In Russia, the demands of the classroom are such that many children are suffering from high levels of stress, particularly in the gymnasia, schools that cater for the most able, where up to 50% of children finish the day showing signs of excessive

fatigue (Baranov, 1998). Such pressures also now seem to be resulting in growing drop-out rates (Grigorenko, 1998) as those who cannot cope find it easier to withdraw. Perhaps each society needs to make certain that it has, indeed, identified its key education-related problems and then debate what price it wants its children to pay to solve them.

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Appendix A. Outline Interview Schedule and Guidance

The first few questions are very descriptive. They offer the opportunity to find out about home life and should help the youngster to talk relatively freely.

Could you tell me what you do after school on a typical evening? Check out the time that X returns home, routines and how these fit in with other family members. Try to ascertain the place of and commitment to academic activity with the family context. What sort of leisure pursuits are enjoyed. What time does X go to bed/go to sleep?

How varied are the evenings? Is there such a thing as a typical evening? What about weekends?

What usually happens in the morning? What time does X get up/go to school. What chores are expected/accomplished?

How does X get to school?

What time do you usually start your homework? Here we are looking for description about the nature and amount of homework (including how variable it is from night to night), parental attitudes and support (who initiates, takes responsibility that homework is completed, is checked), whether the environment is conducive (e.g. space, TV switched on, not a conflict with family chores etc.) Is the pattern at weekends different?

What type and amount of homework did you do when you were younger? Try to tease out if and when homework was expected and something about its nature.

Do you think that homework is important/has value? Why? Try to ascertain what are perceived to be long/short-term gains. Does X's response accord with their behaviour? Does homework get completed? How much effort is put into homework? Does it matter to the child whether homework is done? Is it intrinsically important or completed primarily because of external teacher/parent pressure? Does X think that there is too much/little homework? Does it relate closely to work in class? Would work in class be hindered if homework were not completed? Is homework ever an enjoyable pastime?

What do you like about school? Why? Try to persuade X to discuss this in some depth. If appropriate, discuss attitudes to school in the past and whether these have changed over time

What do you dislike about school? Why? (as above)

How important is to you to get good marks/grades? Try to find out whether it is the learning or the public recognition that is more important. How important is it to study? How important is education? Why is education important/unimportant—to get good marks, be an educated person, get a job, get to college/university? Do the answers to these questions match reported behaviour? If not, try to tease such inconsistencies out.

How do the others in your class/school react to people who do well? (i.e. get good grades, work hard, are eager to answer questions etc.) Do peer group pressures affect people's work rate, motivation? Try to move from generalities to discussion of X's attitudes/behaviour

Are there times when you work (in class but also at home) very hard? Why? *Are there times when you don't work very hard?* Why?

Which is the day in school that you find the hardest. Can you say what is hard about it?

Which is more important for doing well in school: being very clever or working very hard? Try to tease out the underlying thinking behind the answer. Move from generalities to focus upon X specifically. How does X see him/herself in this respect. *If you are not very clever/smart, can you do well in school? What if you're clever/smart and don't work?*

How well are you doing in school at present? Does X consider him/herself to be in an upper/middle/

lower set? Could X be doing much better than s/he is at present? Does X anticipate that s/he will do well in public examinations (GCSEs/ACTs)? Here we are looking at satisfactions and expectations. Does X seem to be satisfied with his/her current level of performance? If not, what is preventing him/her from achieving more (working rate? peers? school? competing attractions? ability? etc.)

Is there anything that others do in class which annoys you? Try to use this neutral question to explore whether the answer relates to X's ability to engage with schoolwork. *Do the other children interfere with your work/disrupt your classes?* Is this really perceived as a problem by X? *Is there anything that you do in class that might annoy or irritate others?* Does X play around in lessons sometimes? Try to get a feel for whether the description of X's classes is perceived as typical of other classes. What percentage of people in X's class mess about/are not prepared to make an effort? Is good/poor behaviour very subject/teacher specific?

Tell me about the future? What will you do after leaving school? What do you think that you will be doing in ten years' time? (work, domestic, marriage, children).

If I were your age and I said, 'You needn't study; education is unimportant. I shall leave school as soon as possible and try to find some way of making money', what would you say to such a person?

If you had one wish for the future, what would it be?