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Studies of socioeconomic and ethnic differences in intelligence in the former Soviet Union in the early twentieth century

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ABSTRACT

This paper reviews the studies of socioeconomic and ethnic and racial differences in intelligence carried out in Russia/USSR during the late 1920s and early 1930s. In these studies the IQs of social classes and of ethnic minorities were tested. These included Tatars (a Caucasoid people), Chuvash and Altai (mixed Caucasoid–Mongoloid peoples), Evenk (a mixed Caucasoid–Arctic people), and Uzbeks (a Central–South Asian people). The results of these studies showed socioeconomic differences of 12 IQ points between the children of white collar and blue collar workers, and that with the exception of the Tartars the ethnic minorities obtained lower IQs than European Russians.

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Little is known in the west of the studies of socioeconomic and ethnic/racial differences in intelligence that were carried out in Russia/USSR during the first third of the twentieth century, except for the work of A.R. Luria (*А.Р. Лурия*). These studies are not mentioned by Grigorenko & Kornilova (1997) in their otherwise thorough review of work on intelligence in the Soviet Union. Even in Russia this early work has been unknown until recently when N.S. Kurek (*Н.С. Курек*) (Курек, 1997, 2004) has attracted attention to them. The objective of this paper is to give a review of these early studies of IQ differences between socioeconomic and ethnic and racial groups in the former Soviet Union.

The first study in which an IQ test was used to measure the intelligence of Russian children was carried out in 1909 by A.M. Schubert (*А.М. Шуберт*) (*Челпанов*, 1999). She used the French Binet test (administered in Russian translation) to measure the intelligence of 229 children. She concluded that the Binet test appeared to be too difficult for Russian children and the scale should be moved on 1 to 2 ages to be appropriate for them. She presented her results on The First Congress on Experimental Pedagogy in 1910. This conclusion was criticized by G.I. Chelpanov (Г.И. Челпанов) (Челпанов,

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1999, p. 423), the founder of the first Research Institute of Psychology in Russia, who argued that Schubert had measured the intelligence of children from lower socioeconomic classes, and suggested that if she measured the intelligence of children of higher socioeconomic class and more intelligent parents the results might be equal to or above the French norms.

The question of the relation of IQ to social–economic class was addressed in a study by E. V. Gurjanov (*E.B. Гурьянов*), A.A. Smirnov (*A.A. Смирнов*), M. V. Sokolov (*M.B. Соколов*), and P.A. Shevarev (П.А. Шеварев) (*Гурьянов, Смирнов, Соколов, & Шеварев*, 1930). They tested 414 children aged between 8½ and 11½ with the American Stanford–Binet (administered in Russian translation). The sample consisted of 200 children of peasants, 141 children of blue collar workers, and 73 children of white-collar workers. All children were from Moscow or the Moscow region. The results were that the children of peasants obtained a mean IQ of 87 (the standard deviation = 10), the children of blue-collar workers a mean IQ of 91 (SD = 8.6) and the children of white-collar workers a mean IQ 98 (SD = 8.4). The mean IQ (unweighted) for three groups was 92. The 7 IQ point difference between the children of the blue-collar workers and the children of white-collar workers seems quite small but the SDs are also quite small. When the difference is expressed in conventional IQs with the SD set at 15, the difference between the two socioeconomic groups becomes 12 IQ points.

Thus, the total weighted mean for Russian children in this study was 90.3 (these IQs are in relation to American Stanford–Binet norms). The distributions of the IQs are given in Table 1. The authors did not test the statistical significance of the differences, but from the figures they report one-way ANOVA reveals a highly significant difference between the three social groups (F (2,411) = 38.98, p<.001). All pair differences (calculated with the Scheffé test) are highly significant (p<.001 for all pair comparisons).

Another study of relation of IQ to social class was carried out by M. Syrkin (*M. Сыркин*) (*Сыркин*, 1929) who compared the intelligence of fourth grade children (N = 338, age approximately 10 years) belonging to six socio-economic groups. The lowest group was described as "blue collar workers and at least one of parents illiterate" and the highest group was described as "white-collar workers and at least one parent educated in an institute of higher education". Intelligence was assessed with five verbal tests measuring comprehension and verbal reasoning. There was a difference of 1.42*d* (equivalent to 21.3 IQ points) between the lowest and highest socioeconomic groups. The correlation between the socio-economic status of the parents and the test scores of the children was 0.369 (p<.001). Approximately two years later the children (now in sixth grade) were tested again and the same socio-economic group differences were present. The difference between the lowest and highest socioeconomic groups at the second testing was 1.50*d* (equivalent to 22.5 IQ points). This difference is closely similar to that typically found in western countries. For instance, in the United States a 19 IQ point difference between the children from the highest and lowest socioeconomic groups in the 1930s was reported by Terman & Merrill (1937), a 20 IQ point difference in England in the 1920s was reported by Duff & Thomson (1923), and a 19 IQ point difference in France in the 1950s was reported by Zazzo (1960). In Syrkin's study the correlation between the socio-economic status of the parents and the test scores of the children at the second testing was 0.386 (p<.001), which does not differ significantly from the correlation at the first testing. The author concluded that children's IQs are significantly associated with parental socio-economic status and that two years of schooling had not had any influence on the socio-economic group differences.

Table 1
Distributions of IQs for three socioeconomic groups (%).

Social group	IQ					
	56–65	66–75	76–85	86–95	96–105	106–115
Peasants	1	17	27	37	16	2
Blue-collar workers	1	6	27	38	26	2
White-collar workers	0	1	7	26	58	13
Total	1	11	24	34	26	4

In 1928, E.I. Zverev (*E.И. Зверев*) (*Зверев*, 1931) tested the IQ of 114 children just admitted to school and aged about 7½–8 years, in and around the city of Kursk, about 500 km south of Moscow. The children were tested with the Binet–Bert test (a Russian adaptation of the Binet). The mean IQ of these children was 80.8. This is much lower than the IQ of children obtained by Gurjanov, Smirnov, Sokolov, & Shevarev (*Гурьянов, Смирнов, Соколов, & Шеварев*, 1930) for Moscow and the Moscow region. Probably this difference was due to methodological and sample differences, but there is a possibility that the regional factor was also involved. According to contemporary data the proportion of mentally retarded children in the Kursk region in 1995 was 3.16% and in 2000 it was 3.41% while in a number of other populations in Russia this proportion ranged from 2 to 3% (*Специальная психология*, 2006, p. 3–4). In this study Zverev compared the IQs of three groups of children: those who were illiterate (i.e. could not read at all) on entering school, those who were half literate (i.e. could read poorly, but could not write), and those who were literate (i.e. could read well) before entering school. The results were as follows: the mean IQ of illiterate children was 73 (n = 66); the mean IQ of half literate children was 87 (n = 22); the mean IQ of literate children was 93 (n = 28). There was also a substantial correlation between the IQ of children and the level of education of their parents (r = 0.54).

There were also some studies of the IQs of non-Slavonic but predominantly Caucasoid peoples. I. Bektchentay (И. Бикчентай) and Z. Carimowa (З. Каримова) (*Бикчентай & Каримова*, 1930) tested the IQs of 380 Tartar children aged 8–18 in five Tartar schools in Moscow with the Boltunow–Binet test (a Russian adaptation of the Binet). The Tartars are indigenous to the Caucasus in the far south of Russia and the former Soviet Union, but a number of them live in central Russian towns and cities. The mean IQ of the Tartar children in this study was approximately the same as that of Russian children. The correlation between the Boltunow–Binet test and school achievements (assessed by teachers' estimates) in their study was 0.84.

In addition to studies of socioeconomic differences, several studies of the intelligence of non-European peoples in the Soviet Union were carried out between 1926 and 1931. The first of these was reported by F.P. Petrov (*E.П. Петров*) (*Петров*, 1928) who tested the IQs of 1398 Chuvash children