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Family Background, Different Forms of Capital, and Student Achievement in Turkish High Schools

Celal Ince

Anadolu University, Faculty of Humanities, Department of Sociology, Eskisehir, Turkey E-mail: <celalince548@gmail.com.tr>

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ABSTRACT There is a remarkable difference among the types of high school in the Turkish education system in terms of the level of academic achievement. The present paper aims to investigate the fundamental dynamics of this difference in terms of the economic, human, social, and cultural capital that students have inherited from their families. To analyze the relationships among these different forms of capital, the research reported here has employed a mixed-methods approach involving qualitative and quantitative data collected with a survey, during interviews and from observations, which once converged have been analyzed in an eclectic approach. The paper concludes that Turkish high school students raised in families rich in economic, human, social, and cultural capital tend to be more successful when they attend scientific high schools and Anatolian high schools, given the more balanced mobility offered by these forms of capital.

INTRODUCTION

As in many parts of the world, Turkey exhibits vast differences in individuals in terms of their academic achievement, which makes it necessary to investigate the matter in greater depth. According to the Program for International Student Assessment (PISA), sixty-two percent of the difference observed in scores received in mathematics courses is attributable to the type of high school that students attend (MNE 2013). Likewise, whereas sixty-two percent of students who graduated from scientific high schools were able to matriculate into undergraduate programs in different universities across Turkey, students graduating from certain high schools gained entrance into no such programs in Urfa; these students constitute the sample of the present research (SSPS 2013).

Aside from the students' intelligence, there appear to be two basic factors that play roles in the academic achievement of students: family background and quality of education provided by the school. In Turkey, students are placed in high schools according to results of a national examination held each year; students who earn high scores are placed in either scientific or Anatolian high schools, whereas students who earn low scores are placed in ordinary schools, including some vocational high schools (MNE 2014). Therefore, a far larger number of students educated in scientific and Anatolian high schools can ultimately matriculate into a university com-

pared to students educated in other high schools in Turkey (MNE 2012). Considering the positive relationship between scores earned by students and their placement in high schools and universities, the type of school that students attend is arguably not much of a determining factor in their academic achievement, but one that only reproduces their already existing achievements.

Though social capital, facilities and quality of education of the school may also be factors in Turkish students' academic achievement, the present paper argues family background is more influential on the academic achievement of students (Coleman 1966, 1988; Bourdieu and Passeron 1996; Gelbal 2008; Dincer and Kolasin 2009; Erkan 2011). This paper therefore aims to analyze the importance of family background as far as the academic achievement of students is concerned.

The academic achievement of students in developing countries is closely related to their family background, a situation confirmed by reports released by PISA on findings concerning Turkey (Oral and McGivney 2013; World Bank 2013). Much research seeking to account for differences in academic achievement of students based on students' family background has been conducted in developed countries, and the students' socioeconomic situations in particular have been considered in relation to family background. The *socioeconomic situation* refers to the people's household income, the highest level of education attained by parents, and parents'

occupations (Sirin 2005; van Ewijk and Sleegers 2010; PISA 2012). Though these factors combined may not pose any problem given the greater balance among forms of capital in developed countries, they may nevertheless result in problematic differences in developing countries, where cultural codes have been reported to induce variations (Fuller 1987; Oral and McGivney 2014). As such, one should not refer only to data measured via quantitative techniques when it comes to accounting for family background; qualitative techniques should also be used in obtaining such abstract information concerning social and cultural capital. In response, this paper aims to contribute by identifying deeper reasons for differences in Turkish students' academic achievement and by providing a novel viewpoint for decision makers, planners, and managers in order to reduce the differences. In doing so, this paper refers to economic, human, social, and cultural forms of capital in analyzing and comparing the family background of students educated in different types of high schools (Coleman 1966; Bourdieu 1986). It also aims to investigate whether there is any mobilization among these four types of capital and how any such mobilization relates to students' academic achievement.

Economic Capital

According to Coleman (1998), economic capital includes material resources such as a separate room to study, materials that facilitate learning, and financial conveniences that reduce family problems, all of which contribute to the success of an individual. Economic capital is thus inseparable from the educational life of students and their access to necessary educational materials (Aikens and Barbarin 2008; van der Berg 2010). However, economic capital alone is not enough to assure students' academic achievement, for there is only a limited positive relationship between economic capital and students' academic achievement (SSPS 2002). In support, PISA (2012) and Human Development Report (2014) have reported that there is no absolute linear relationship between a country's economic capital and the level of education of its citizens.

Human Capital

Until recently, economic capital was used as a reference regardless of other forms of capital in

determining individuals' educational achievement; however, human capital has proven to be of equal importance in the current Information Age (Carneiro and Heckman 2003). Human capital can be defined as an element with a facilitating effect upon increased personal, social, and economic welfare, as well as the embodiment of knowledge, skills, competence, and other qualities (OECD 2001). With this definition taken into account, it has been argued that students' academic achievement is determined mostly by factors such as their parents, experience with the immediate environment pertaining to the education, and knowledge (Kolasin 2009; Kabasakal 2013; Oral and McGivney 2014). At the same time, Coleman (1988) has posited that even if the parents are rich in economic and human capital, that advantage may be lost if they are indifferent to the educational processes of their children and fail to contribute positively to their children's academic achievement. In this sense, neither economic nor human capital functions properly for students when the social capital of their parents remains poor.

Social Capital

Social capital has been defined differently in different disciplines. In focusing more on how social capital works in society than to what it actually refers, Coleman (1966, 1988) has claimed that social capital consists of the number of siblings in the family, the presence of parents in the household, the expectation of parents regarding the education of their children, the mobility of the family, and its membership in religious organizations, all of which play a distinct role in the education of any individual. According to Coleman (1988), a family needs to be rich in economic, human and social capital in order to be able to support their children's education.

Nzamutuma (1992) has presented a matrix of the relationships among forms of capital and academic achievement of students. According to this matrix, the student's family must be rich in all forms of capital, which makes members of such families the most privileged. At the same time, if a family is rich both in economic and human capital but poor in social capital, the result is the loss of the privilege afforded by the first two forms of capital. Students from these families are more likely to end up with poor academic achievement unless they either receive a good educa-

tion in schools or the educational centers by religious organizations. Otherwise, families are poor in economic and human capital but rich in social capital, or else poor in all forms of capital.

Cultural Capital

According to Bourdieu (1996), a family's cultural capital lies at the center of any individual's academic achievement. Cultural capital refers to the socialization process that occurs in families and the experiences related to school life (Bourdieu 2006). In this sense, individuals from the society's upper class tend to have already acquired some of the social skills to be learned at schools before they even matriculate, largely due their habitus, which gives them the advantage of being one step ahead of their peers. This distinction between students furthermore generally persists throughout an individual's academic life by continuing to reproduce itself. As a result, some of the early advantages acquired during students' preschool years appear to significantly impact the rest of their lives (EOCD 1998; Carneiro and Hechman 2003).

Based upon the theoretical framework established so far, the present paper aims to answer the question: What kinds of difference exist among students educated in different types of high school in the city of Urfa, Turkey, in terms of family background?

MATERIAL AND METHODS

In this research, a mixed-methods approach was used to determine the relationships among academic achievement and family background of students in consideration of their families' economic, human, social, and cultural capital. This method is known to compensate for the weaknesses of either quantitative or qualitative research (Neuman 2006; Creswell and Clark 2011). This research has employed a convergent mixedmethods pattern, in which quantitative and qualitative data was collected simultaneously but analyzed separately and then reunited in the final analytical process (Creswell and Clark 2011). The data for this research were obtained in 2013 with a disproportionate stratified sampling technique so that parents of students educated in different types of high school could participate in the study. In all, 410 students were included in the sample in order to gather a general opinion.

Meanwhile, 49 people were interviewed, including students, teachers, managers, parents, and spokespersons of the unions of education, with a semi-structured interview method. House visits were also performed to observe the conditions in which students were living. The survey and interviews were conducted and analyzed simultaneously. The reason for using both quantitative and qualitative methods in this research was to allow one kind of data from individuals to validate the other (Creswell and Clark 2011).

To measure economic capital, the students' family income and the family's ownership of a house were examined, whereas the highest level of education attained by parents and the number of siblings with low levels of education in the family were considered to measure human capital. To measure social and cultural forms of capital, the participation levels of parents in their children's educational processes, the number of books available at home, the social activities held within the household, the television programs watched, and the local languages spoken at home were all investigated.

Scores issued by SSPS for schools included in this research were used as a reference in determining the academic achievement of students. Both theoretical and empirical studies were employed to secure content validity for the research materials. Moreover, whether the questions prepared for both the survey and interviews aligned with the purpose of the research was tested. Finally, a pilot scheme was applied to expose all obscure items. Cultural codes were considered in preparing and formulating the questions of the interviews and survey. To provide both, the validity and reliability of the results of this research, data diversity was achieved by conducting a survey, performing interviews and observations, and seeking expert opinions. Moreover, interview groups were formed for teachers, managers, parents, and spokespersons of educational unions. Quantitative data was subjected to a q square analysis, whereas qualitative data was subjected to a thematic analysis to compare the family backgrounds of students who participated in this research.

RESULTS

Rural and Urban Households

A statistically significant relationship was found between the birthplace of students and the types of school they attended ($\chi^2 = 9.8$, df(6),

p < .05, n = 410). It was determined that seventy percent of the students attending scientific high schools and sixty-one percent attending Anatolian high schools were born in urban areas (Table 1). One parent expressed the following during an interview: "I live in the village and work as a farmer. Three of my children attend an ordinary school, and another three attend a high school in the city. However, due to being too occupied with farming, I can barely visit them to attend to their problems or check their progress. To be honest, I know of nobody whom I can consult about their education" (Seyhmus 2013). One teacher who used to teach in a remote village touched upon the negative impact of living in a rural area regarding the quality of education by saying, "The biggest problem encountered by students who are educated in remote areas is the lack of good role models. If there are some people in the family who have had schooling, then the other young members of the family take them as models, and this contributes quite positively to their success in school" (Halil 2013).

The Occupational Status of Parents

No statistical significance was found between the type of school attended by students and their mothers' occupation, though the former was significantly related to the occupation of fathers ($\chi^2 = 47.2$, df(10), p < .05, n = 410). Whereas, fifty percent of students attending a scientific high school and thirty-four percent of those attending an Anatolian high school had fathers working as civil servants, forty-four percent of students attending an ordinary high school had fa-

thers who worked as farmers or other types of wage earners (Table 2). A manager interviewed called attention to the disadvantages of students whose fathers work either as farmers or as wage earners: "Families living in this neighborhood move to other areas to work as seasonal workers, which is why their children cannot attend the first and the last months of the school year" (Yusuf 2013). By contrast, some teachers pointed out that an agriculture-based high income may negatively affect the academic performance of children in these families, for such students may lack sufficient motivation to work hard since they do not consider education as a means to having a comfortable life (Tuba 2013).

Financial Situation of the Family

A statistically significant relationship was found between the financial situation of families and the type of school that their children attended ($\chi^2 = 78.1$, df(10), p < .05, n = 410). Though forty-five percent of students attending a scientific high school were of households with an annual income of more than 2,500 Turkish liras, this rate was true for only nineteen percent of students attending an Anatolian high school and for only ten percent attending an ordinary or vocational high school (Table 3). Likewise, the relationship of the responses of students to questions of whether their parents provided them with school materials on time $(\chi^2 = 24.0, df(4)) > 2.05, n$ = 410) and whether they had a library (χ^2 = 18.4, df(3), p < .05, n = 410) with the type of school they attended was found to be statistically significant (Tables 4 and 5). A teacher working in a scientific high school explained how a low in-

Table 1: Birthplace type of high-school students according to type of high school

	Scientific	Scientific high school		high schools	Ordinary high school	
	N	%	N	%	N	%
Village	4	9.1	9	11.8	67	23.1
District	9	20.5	20	26.3	51	17.6
Province	31	70.5	47	61.8	172	59.3

Table 2: Father's occupation of students according to type of high school they attend

	Scientific high school		Anatolia	n high schools	Ordinary high school	
	N	%	N	%	\overline{N}	%
Public servant	22	50.0	26	34.2	52	17.9
Unemployed	1	2.3	0	.0	13	4.5
Tradesman	4	9.1	15	19.7	7.5	25.9
Farmer	6	13.6	13	17.1	65	22.4
Self employed	9	20.5	10	13.2	19	6.6
Temporary jobs	2	4.5	12	15.8	66	22.8

Table 3: Monthly income of students' families according to type of high school they attend (TRY)

	Scientific high school		Anatolian	n high schools	Ordinary high school	
	N	%	N	%	N	%
0-499	2	4.5	3	3.9	56	19.3
500-999	3	6.8	14	18.4	86	29.7
1,000-1,499	4	9.1	14	18.4	61	21.0
1,500-1,999	4	9.1	20	26.3	37	12.8
2,000-2,499	11	25.0	10	13.2	20	6.9
>2,500	20	45.5	15	19.7	30	10.3

Table 4: Students' families learning of training tools according to type of high school they attend

	Scientific high school		Anatolian	high schools	Ordinary high school	
	N	%	N	%	N	%
Yes	41	93.2	61	80.3	183	63.1
Sometimes	2	4.5	15	19.7	8.5	29.3
No	1	2.3	0	.0	22	7.6

Table 5: Whether students can benefit from the library's home according to the type of high school they attend

		Scientific high school		Anatolian h school	Ordinary high school		
	\overline{N}	%	N	%	N	%	
Yes	39	88.6	60	78.9	178	61.4	
No	5	11.4	16	21.1	112	38.6	

come affects the education of students by saying, "Families with low incomes have a tendency to neglect to send their children to school, and they fail to attend to their progress or problems even if they do so, which reduces the academic achievement levels of their children. I came to this conclusion based upon the experience I have had in the past 20 years" (Abdurrahman 2013). Another teacher called attention to the same dynamic: "Students tend to be deprived of the materials they need in school when their parents earn a low income, which in turn results in low levels of academic achievement" (Sevda 2013).

Highest Level of Education Attained in the Family

A statistically significant relationship was found between the highest level of education attained by both parents and the type of school that their children attended. Though fifty percent of fathers of students attending a scientific high school had earned either an undergraduate or graduate degree, thirty percent of fathers of students attending an Anatolian high school graduated from a high school, and forty-four percent of fathers of students attending an ordinary high school graduated from a primary or secondary school (χ² = 96.6, df(10), p < .05, n = 410). Likewise, thirty-six percent of mothers of students attending a scientific or Anatolian high school graduated from a primary or secondary school, while thirty-seven percent of mothers of students attending an ordinary high school were illiterate ($\chi^2 = 76.6$, df(10), p< .05, n = 410) (Table 6).

Another interesting, statistically significant factor was the number of siblings of students

Table 6: Highest level of education attained by mothers and fathers of students according to the type of high school they attend

	S	Scientific high school			An	Anatolian high school				Ordinary high school		
	Mot	hers	Fathers		Mothers		Fathers		Mothers		Fathers	
	N	%	N	%	\overline{N}	%	N	%	N	%	N	%
Illiterate	4	9.1	0	.0	7	9.2	1	1.3	109	37.6	9	3.1
Literate	6	13.6	2	4.5	17	22.4	9	11.8	74	25.5	83	28.6
Primary education	16	36.4	8	18.2	33	43.4	22	28.9	82	28.3	129	44.5
High school	8	18.2	9	20.5	11	14.5	23	30.3	21	7.2	48	16.6
University	9	20.5	22	50.0	6	7.9	19	25.0	4	1.4	19	6.6
Graduate education	1	2.3	3	6.8	2	2.6	2	2.6	0	.0	2	.7

who had never received any kind of schooling or else had dropped out ($\chi^2 = 36.3$, df(8), p < .05, n = 410]. Ninety percent of siblings of students attending a scientific high school were already students, depending on their age, or had graduated from university. At the same time, twentyseven percent of students attending an Anatolian high school and forty-two percent attending an ordinary or vocational school had at least one sibling who dropped out of school (Table 7). One parent emphasized the importance of human capital for students' younger siblings who could look to them as role models by saying, "For instance, my oldest brother was a driver, and he did not set a good example for us. The oldest sibling is very important as a model for those younger than him or her. This is a significant part of the reason why the rest had poor academic achievement in school" (Seref 2013). This finding appears to be confirmed by the observation of this research that students with high levels of academic achievement tend to have taken a successful person in the family as a role model.

Table 7: Unschooled siblings according to the type of high school students attend

		ientific h school	Anatolian high school			Ordinary high school
	N	%	\overline{N}	%	N	%
1	1	2.3	7	9.3	41	15.3
2	1	2.3	4	5.3	27	10.1
3	1	2.3	3	4.0	29	10.8
>4	1	2.3	6	8.0	40	14.9

Languages Spoken at Home

A statistically significant difference was also found to exist in the relationship between the predominant language spoken at home and the type of the school students attended ($\chi^2 = 26.5$, df(6), p < .05, n = 410). While seventy-four percent of students attending a scientific high school spoke mostly Turkish, this rate decreased to sixty-four percent in families of students attending an Anatolian high school and to fifty-four percent in families of students attending an ordinary or vocational high school (Table 8). One of the teachers reported, "Some of the students who speak a language other than Turkish in the home environment tend to experience a lot of

difficulty adapting to the education system in Turkish school environments. This has a negative impact upon their ability to express themselves, which results in passive participation during lessons" (Halil 2013).

Table 8: Primary spoken language in the families of students according to the type of high school they attend

	Scientific high school		Anate high s		Ordinary high school		
	N	%	N	%	N	%	
Kurdish Arabic Turkish Other	9 1 34 0	20.5 2.3 77.3 .0	23 1 49 3	30.3 1.3 64.5 3.9	88 42 159	30.3 14.5 54.8 .3	

Perception of Education

Another statistically significant relationship was found between responses of students to whether there was anyone in their family who thought attending was a school a waste of time and the type of the schools they attended (χ^2 = 11.4, df(2), p < .05, n = 410]. While ninety-five percent of students attending a scientific high school answered in the negative to this question, the rate decreased as far as other types of schools were concerned: ninety-two percent in Anatolian high schools and eighty percent in ordinary high schools (Table 9). One student attending a scientific high school said that his parents forced him to study hard even though they were agreeable and tolerant people in general (Ulas 2013). Likewise, a teacher interviewed expressed his opinion about how family members perceive education: "Some children tend to neglect their studies if the parents or other family members neglect to attend to their progress. Surprisingly enough, there are some parents who are oblivious to the fact that their children get finall exams, and they do not even visit the school to check on them. However, if the parents can get in touch with us [himself and other teachers] in one way or another, then we may do something toward increasing the academic achievement of their children" (Suzan 2013).

Participation of Parents in Students' Educational Processes

Parents' participation in the educational processes of their children was investigated by ask-

Table 9: Family's children do not attend school whether they are unnecessary according to type of high school they attend

		Scientific high school		atolian school	Ordinary high school		
	N	%	N	%	N	%	
Yes No	41	95.3 4.7	69 6	92.0 8.0	230 56	80.4 19.6	

ing students whether their parents regularly asked them what they did in school that day and whether their parents knew so that a relationship could be established between social capital and education. A significant relationship was found between responses to the former question (χ^2 =13.3, df(4), p<.05, n=410]. While fiftynine percent of students attending a scientific high school replied that their parents regularly asked them how they were doing in school, this rate was much lower for students attending other types of schools: fifty-two percent among students attending an Anatolian high school and thirty-six percent among students attending ordinary high schools (Table 10).

Table 10. Families with schoolchildren according to type of high-school the students attend

	Scientific high school			atolian school	Ordinary high school		
	N	%	N	%	N	%	
Some- times	14	31.8	24	31.6	130	44.8	
No	4	9.1	12	15.8	55	19.0	

Number of Siblings

There was a statistically significant relationship between the number of siblings and the type of school that students attended (χ^2 =51.6, df(10), p < .05, n = 410]. While only eleven percent of students attending a scientific high school had at least six siblings, this rate increased for students attending Anatolian high schools (22%) and ordinary high schools (51%) (Table 11).

Educational Institutions Managed by Religious Organizations

Some students and managers interviewed called attention to the educational institutions managed by religious organizations by claiming that the recently founded educational centers and libraries sponsored by religious organiza-

Table 11: Number of siblings of students according to the type of high school they attend

		Scientific high school		itolian school	Ordinary high school	
	N	%	N	%	N	%
1	2	4.5	1	1.3	8	2.8
2	8	18.2	6	7.9	15	5.2
3	6	13.6	18	23.7	27	9.3
4	12	27.3	16	21.1	38	13.1
5	11	25.0	18	23.7	52	17.9
>6	5	11.4	17	22.4	150	51.7

tions compensated to a remarkable extent for the inequality in education across the country. Since a significant number of students living in the area where this research was conducted came from families with low incomes, these students were able to overcome such a drawback by attending these centers and facilities provided by religious organizations (Ali 2013). One student educated in one such institution said that he was highly motivated by the comfortable environment and inspiring atmosphere provided by the teachers and managers at no charge. He added that he was able to ask any questions about topics of mathematics, physics, or chemistry with which he had had trouble asking both, his teachers and successful peers (Salih 2013).

DISCUSSION

The present research establishes a strong relationship between the family background and academic achievement of students in line with the research results of Coleman (1966) and Bourdieu and Passeron (1996), as well as with results of other studies conducted in Turkey (Gelbal 2008; Dincer and Kolasin 2009; Erkan 2011; World Bank 2010; PISA 2012; Sad 2012; Oral and Mc-Givney 2014). Though most of these studies have focused on the education, income and occupation of parents, the reality sought is far more complex. The present research concludes that no form of capital is sufficient on its own in determining the academic achievement of students. On the contrary, mobility between all forms of capital seems to be vital. For instance, students from families that keep moving to and from villages as seasonal wage earners and who speak different languages at home tend to suffer negative impacts regarding their academic achievement, for they are deprived of social and cultural capital even if they are rich in economic capital (Farrell et al. 2003).

A regression study by Oral and McGivney (2014) reported that observable factors affecting the academic achievement of students were fewer than unobservable ones. The present paper is therefore important in that it emphasizes the importance of unobservable factors such as social and cultural capital by using a qualitative research method in relation to the academic achievement of students attending different types of high school. For instance, the perception of parents regarding education is a component of social and cultural capital. The home visits made during this research revealed that since the perception of some parents about education was low, their economic capital failed to prepare their children sufficiently for high levels of academic achievement. The interviews with the managers and students revealed that some individuals poor in economic, human, social and cultural capital were provided a resource for their academic achievement by integrating resources provided by religious organizations actively involved in educating students at their educational centers and others facilities (Coleman 1988).

CONCLUSION

The results of this research suggest that the background of a student's family affects both, the type of school that the student attends and his or her academic achievement there. At the same time, it is not enough for success to have just one form of capital. For instance, a family's having only economic capital is not significant for a student's academic achievement. To achieve academically, the student's family must have all forms of capital, among which there should be mobility. This ideal becomes significant when economic capital turns into social and cultural capital, as well as when the capital forms gain operation in that area, because economic richness becomes meaningful when used to supply educational resources for school. In the same way, the factor of parents' having high levels of academic achievement becomes significant when parents attend to their children's educational processes.

RECOMMENDATIONS

The findings of this research are most important to decision makers, educational institutions, and researchers. The fact that education is free in Turkey does not appear to be enough to reduce the vast differences in the academic achievement of individuals, which is also the case in many parts of the world. Considering the strong relationship between academic achievement and unobservable factors such as social and cultural capital, any solutions for reducing differences in academic achievement should be considered according to these unobservable elements. In this context, administrators should prepare school syllabi by considering local needs to ensure the equality of opportunities and to minimize the differences of individual achievement. Furthermore, they should produce solutions to accommodate the different degrees of social capital of student's families so that these differences do not become disadvantages. The focus should thus be not only on economic capital, but also other forms of capital in order to improve the students' academic achievement.

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