Research on Finnish Society
Vol. 10 (2017), pp. 101-111

ISSN 1796-8739

Intergenerational transmission of cultural capital in Finland

Jarmo Kallunki & Semi Purhonen
University of Tampere

Cultural resources and assets inherited from one's family of origin can be an important source of social inequality. In Finland, research on the intergenerational transmission of cultural capital is very limited. To fill this gap, we ask whether there is an association between the cultural capital of parents and that of their children in Finland and, if so, how significant it is. We used a two-fold operationalization of cultural capital for respondents and their parents comprising educational attainment (institutionalized cultural capital) and interestedness or participation in highbrow culture (embodied cultural capital). Our multinomial logistic regression analysis of nationally representative survey data from 2007 (N=1,279) showed close links between respondents' cultural capital and that of their parents. Respondents' educational attainment was strongly influenced by their parents' education level but not their cultural interestedness; in contrast, respondents' cultural participation was influenced by both their parents' education and cultural interestedness.
Keywords: Cultural capital, social reproduction, intergenerational transmission, education, cultural participation

VERTAISARVIOITU
KOLLEGIALT GRANSKAD
PEER-REVIEWED
www.tsv.fi/tunnus

Introduction

Research on intergenerational social mobility and reproduction has established that social position, whether measured through education, occupational class or income level, is transmitted from one generation to the next in every society, albeit to varying degrees. One of the best-established findings in the sociology of education is that in every society, the higher the education level of parents, the higher that of their children (Hertz et al. 2007; OECD 2015). Similar to the intergenerational transmission of education, occupational mobility follows common patterns across nations and over time, and education is the main factor in producing occupational intergenerational mobility and reproduction (Breen2004; Breen & Luijkx 2004; Hout & DiPrete 2006). The same conclusion can be drawn about income: there is intergenerational reproduction in income levels, and education is the main factor explaining this transmission (Björklund & Jäntti 2009; Bowles & Gintis 2002). Finland is no exception to these patterns, although in all three respects, the intergenerational transmission is weaker than in most other countries (Erola & Moisio 2002; Härkönen 2010; Kivinen et al. 2012; Pekkala Kerr & Rinne 2012; Sirniö et al. 2013).

Social stratification and social inequalities, however, are not only material and economic; they also constitute cultural phenomena (Weber 1946). Cultural resources and assets inherited from family can be an important source of social inequality. Thus, intergenerational transmission has drawn increasing attention in research on cultural stratification (e.g., Andersen & Jaeger 2015; Kraaykamp & van Eijck 2010; Mohr & DiMaggio 1995; Nagel 2009; van Hek & Kraaykamp 2015; Willekens et al. 2014; Willekens & Lievens 2014; Xu & Hampden-Thompson 2011). Cultural sociology has established that cultural practices – that is, cultural tastes, activities and orientations – are unevenly distributed according to the hierarchy of social positions (measured by, e.g., education, occupational class and income (Bennett et al. 2009; Bourdieu 1984; Chan 2010). The main concern of research on the intergenerational transmission of cultural practices is therefore to probe the degree of cultural reproduction across generations and its overall significance for social inequality. While there is ample research on the stratification of cultural practices in Finland (e.g., Kahma 2011; Purhonen et al. 2014), to our knowledge, there are no quantitative studies on the intergenerational transmission of cultural capital in Finland, aside from the area of education (e.g., Kivinen et al. 2012; Pekkala Kerr & Rinne 2012; Witting & Keski-Petäjä 2016). We thus aim to fill this gap.

The conceptual framework operationalized in studies on the intergenerational transmission of cultural capital is often drawn from Bourdieu (Willekens et al. 2014). According to

Jarmo Kallunki (MA, M.Soc.Sci.) is an unaffiliated young researcher, whose research interests include the sociological, political, cultural, and economic aspects of education and education system. Semi Purhonen is Associate Professor of sociology and Academy Research Fellow at the University of Tampere. He is the director of an international research group studying how cultural classifications and hierarchies have changed in Europe since the 1960s. His research interests include cultural sociology, lifestyles, social stratification, age and generation, comparative research and sociological theory.

Corresponding author: Semi Purhonen, Faculty of Social Sciences Linna 5056 (Kalevantie 5) FIN-33014 University of Tampere Finland tel. +358503187313; email semi.purhonen@uta.fi

Bourdieu (2006), capital is accumulated labour, and cultural capital exists in three forms: embodied, objectified and institutionalized forms. The embodied form refers to long-lasting dispositions in a person's behaviour and taste, which are acquired by cultivation. The objectified form refers to material objects of cultural value, such as paintings and instruments. The institutionalized form refers to educational qualifications and credentials. (Bourdieu 2006, 1998; 1989; 1984; for a discussion, see, e.g., Jenkins 2014; Lamont & Lareau 1988; Robbins 2005) All three forms of cultural capital can be considered from the perspective of intergenerational transmission (Kraaykamp & van Eijck 2010). Our focus here is on intergenerational transmission in terms of embodied and institutionalized cultural capital.

According to Bourdieu (1998; 1973), cultural aspects of reproduction – especially the inheritance of education and the way in which education is intertwined with embodied cultural capital – are highly significant in the reproduction of social inequalities. The effectiveness (productivity) of the education and upbringing (pedagogic work) of a child depends on his/her previous education and upbringing, ultimately extending and including pre-school family upbringing at home (Bourdieu & Passeron 1977). The education system recognizes and rewards behaviour and dispositions that are characteristic of the higher social classes and legitimizes and objectifies these in the form of school success and education credentials. In this way, the education system converts existing social inequalities into authorized academic hierarchies and contributes to social reproduction. (Bourdieu 1973; Bourdieu & Passeron 1977.) While Bourdieu's view can be criticized for over-emphasizing the influence of children's social origins on their school success (Jenkins 2014), the framework is useful for theorizing how the education system might transform inherited embodied cultural capital into institutionalized cultural capital (e.g., Andersen & Jaeger 2015; Kraaykamp & van Eijck 2010; Xu & Hampden-Thompson 2011) and, ultimately, into differences in labour market outcomes.

Embodied cultural capital is acquired through cultivation, which is part of socialization, or the 'ways[s] in which individuals are assisted in becoming members of one or more social groups' (Grusec & Hastings 2008, 1). Individuals are cultivated both by their families of origin and by social group memberships later on in life, such as educational groups, occupational groups, sports or hobby-related clubs and other peer groups. Both family cultivation and subsequent cultivation may influence individuals' embodied cultural capital (e.g., Daenekindt & Roose 2013).

Parents transmit their embodied cultural capital to their children in various ways. They may demonstrate interest in education and culture (Bourdieu 1984; van Hek & Kraaykamp 2015) and transmit their linguistic and cognitive skills to their children to help them succeed in school (De Graaf et al. 2000). They may be actively involved in their children's education by using their knowledge of the education system and influence over schooling (Lareau & Weininger 2003). They may also actively guide their children to appreciate and participate in cultural activities (van Hek & Kraaykamp 2015) and may finance expenses and provide transport (Dumais 2002). In general, parents influence the kinds of social groups, whether informal or institutional, that their children spend time socializing into during childhood (Lareau 2003). While family structure (Tanskanen et al. 2016), institutional school environment (Andersen & Jaeger 2015) and a country's welfare model (Xu & Hampden-Thompson 2011) may influence the outcomes of parental influence, early childhood experiences have a durable impact on individuals' later life experiences and outcomes (Heckman 2006).

Previous research has shown that parents' embodied and institutionalized forms of cultural capital may have independent effects on both the embodied and institutionalized cultural capital of their children (e.g., van Hek & Kraaykamp2015; Kraaykamp & van Eijck 2010; Nagel 2009; Willekens et al. 2014; Willekens & Lievens 2014). Taking stock from these previous analyses, we separately measure parents' embodied and institutionalized cultural capital and separately analyse their associations with children's embodied and institutionalized forms. Thus, our research questions are as follows:

1. Are parents' embodied and institutionalized cultural capital associated with the institutional cultural capital of their children in contemporary Finland? How strong are these potential associations?

2. Are parents' embodied and institutionalized cultural capital associated with the embodied cultural capital of their children in contemporary Finland? How strong are these potential associations?

Empirical investigations should determine what kind of culture is capable of generating advantages or identify the specific 'content' of cultural capital in a given social setting (Holt 1997; Lamont & Lareau 1988; Lareau & Weininger 2003). While the case of institutionalized cultural capital is quite straightforward (the higher the degree the better), scholars have debated about what counts as embodied cultural capital. Participation and interestedness in classical 'highbrow' culture is often regarded as a prime indicator of embodied cultural capital in contemporary Western societies, including Finland (DiMaggio 1982; DiMaggio & Mukhtar 2004; Purhonen et al. 2014;). Highbrow culture enjoys substantial public funding and is strongly institutionalized (e.g., in curricula and professorships of higher education, museums, canons, prizes and criticism). Its prestigious status as a 'high status signal' (Lamont & Lareau 1988) is widely recognized.

Research design

Data

We used nationally representative survey data from 2007 (N=1,388) collected by Statistics Finland as part of the research project 'Cultural Capital and Social Differentiation in Contemporary Finland'. The data were drawn from a random sample of 3,000 Finnish citizens (excluding those from the Aaland Islands) aged 18–74, with a response rate of 46.3 per

cent. Women, older men and more highly educated people are slightly overrepresented in the sample compared to the Finnish population. To correct these biases, we weighed the data using an index calculated by Statistics Finland. The data are available from the Finnish Social Science Data Archive (ID: FSD2953) and have already been extensively analysed. A more detailed description of the data can be found elsewhere (e.g., Kahma 2011; Purhonen et al. 2014).

The questionnaire contained a wide variety of questions about respondents' cultural tastes, activities and practices. There was also a separate retrospective question for fathers and mothers on their cultural interestedness. Moreover, both respondents and their parents were asked about their education levels. Thus, we constructed measures for embodied and institutionalized cultural capital for both the respondents and their parents. There were no questions about the parents' objectified cultural capital, so we could not include this form in this analysis (cf. Kraaykamp & van Eijck 2010). Regarding respondents' social position, the data contained information about respondents' occupations, income levels, areas of residence and current family structures.

Considering the above-mentioned data characteristics, and using the approach proposed by Kraaykamp and van Eijck (2010), we formulated our research design (see Figure 1). We acknowledge that the respondents' embodied cultural capital perhaps influences their institutionalized cultural capital (see, e.g., DiMaggio 2002; Dumais 2002; Merenluoto 2009; Xu & Hampden-Thompson 2011), but our data did not permit this inquiry.

The retrospectivity of the questions regarding parents' cultural interestedness is potentially problematic as the corresponding data are subject to biases depending on respondents' memory. Nevertheless, this type of retrospective question is often used in analyses of the intergenerational transmission of cultural capital due to the lack of suitable longitudinal and intergenerational data sets on embodied cultural capital (e.g., Kraaykamp & van Eijck 2010). De Vries and de Graaf (2008) studied the impact of both random and correlated measurement errors on respondents' reports of parental highbrow cultural activities and, thus, on the analysis of intergenerational transmission of embodied cultural capital. They concluded that measurement errors tend to yield an underestimation of the parental effect – 'the total effect is underestimated, while the direct effect is not biased' (de Vries and de Graaf 2008, 324; see also van Hek & Kraaykamp 2015). Thus, in analyses without correction terms, it is more difficult to confirm the existence of parental effects. Therefore, such analyses provide a lower-bound estimate for the strength of the parental effect.

Variables

We used categorical variables to measure the levels of education (institutionalized forms). For parents, the variable took the maximum value from the fathers' and mothers' education levels, which had five values: less-than-basic education, basic education, secondary education, lower higher education (bachelor's degree or equivalent) and higher education (master's degree or higher). For the respondents, we used a variable comprising four values: basic education, secondary education, lower higher education and higher education. The difference in the number of categories reflects the general rise in the level of formal education in the Finnish population over the past few decades (Pekkala Kerr & Rinne 2012). In some cases, the value for parents' education level was missing; we excluded these cases from the analysis, with N decreasing to N=1,297.

The embodied cultural capital of a respondent's parents was measured by asking whether the parents were interested in the following cultural activities during the respondent's childhood: reading, movies, gardening, crafts, sports, pop music, classical music, cooking or arts. The question was presented separately for fathers and mothers, and the respondent could choose multiple activities. Corresponding with our commitment to empirically defining cultural capital, we used principal component analysis and found that for both fathers and mothers, interests in reading, movies, classical music and arts were associated but were separated from the rest of the activities (tables on file with authors). Adhering to the notion of capital being accumulated labour (Bourdieu 2006), we constructed a variable measuring the cultural interestedness of parents as a sum of the fathers' and mothers' interestedness in these four activities (Cronbach's alpha: 0.61; initial range: 0–8). We recoded the values to form a categorical variable with the following categories and content: no interestedness, slight interestedness (parents interested in one activity), intermediate interestedness (parents interested in two activities), high interestedness (parents interested in three activities) and very high interestedness (parents interested in four or more activities). Notably, this variable described parents' interestedness, especially in highbrow culture.

There were several options for measuring respondents' embodied cultural capital. One of the questions addressed whether respondents, at some point in their lives, had regularly studied certain forms of culture outside the school curriculum, for example, music and singing, acting and dancing, creative writing, photography and film, painting and drawing, crafts or some other artistic activity. Another question considered whether the respondents were currently members of a cultural club; the same seven choices above were used, plus literary clubs. Respondents could choose several options for each question. Principal component analysis demonstrated (tables on file with authors) that studying a given art form was associated with club membership in that same form and that studying one form positively correlated with studying another form, the latter being true for club memberships as well. This, together with the regularity of study, suggests that these questions measure enduring cultural participation. Thus, we constructed a measure for the respondents' embodied cultural capital (as accumulated labour) by summing up studies and club memberships to measure the respondents' enduring cultural participation (Cronbach's alpha: 0.62; initial range 0–15). We recoded the values to produce a categorical variable with three values: no participation, intermediate participation and high participa-

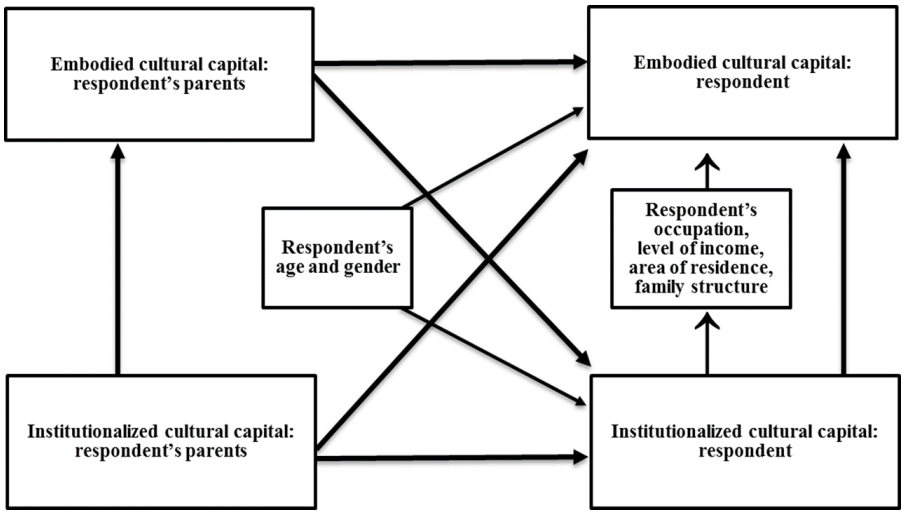

Figure 1. Research design.

tion. The 'no participation' category meant that the respondent had never studied any of the cultural forms specified and was not a member of any cultural club mentioned. Intermediate participation meant that the respondent had indicated one or two forms that he/she had studied or for which he/she was a member of a club, while high participation meant that he/she had indicated three or more forms.

In addition to the cultural capital variables, we used variables describing the respondents' age, gender, occupational class, income level, area of residence and family structure. These factors have been shown to influence both embodied and institutionalized cultural capital in Finland (using this same dataset; Purhonen et al. 2014); we thus used them as controls. We used age as a continuous variable, while the remainder were categorical variables (the distributions of all variables are presented in the Appendix).

Method

Our research questions and categorical variables led us methodologically to multinomial logistic regression analysis (MRA) (Nummenmaa 2004; Tabachnick & Fidell 2007). MRA is a flexible method that sets only three requirements for analysis: the cases must be independent of one another; the variable to be explained must be categorical; and there cannot be overly strong correlations (collinearity) among the explaining variables. All these requirements were met here. MRA produces models that use explaining variables, or predictors (Tabachnick & Fidell 2007), to predict whether a given case belongs in one or another category of the variable under scrutiny. In MRA, a separate logistic regression model is produced for each non-reference category of the explained variable. The goodness of fit of the MRA model is evaluated by the accuracy of the abovementioned predictions. MRA produces a set of odds ratios that can be used to evaluate the significance of the predictors. Because odds ratios are problematic to use in within-model and between-model comparisons, we calculated the average marginal effects (AME) to better grasp the practical significance of the predictors and to allow for more nuanced comparisons (see Mood 2010).

Table 1
Correlations between the cultural capital variables.

	RP	RE	PI	PE
Respodent's cultural participation (RP)	1.0			
Respondent's level of education (RE)	0.23***	1.0		
Parents' cultural interestedness (PI)	0.20***	0.15***	1.0	
Parents' level of education (PE)	0.27***	0.38***	0.35***	1.0

*p<0.05; **p<0.01; ***p<0.001. (Spearman's rho, two-tailed tests.)

Results

To establish an association between the cultural capital of parents and that of respondents, we calculated the pairwise Spearman correlation coefficients for all cultural capital variables. Table 1 shows clear connections between the cultural capital variables. Cross-tabulations showed that both the level of education and the respondents' cultural participation increased approximately linearly when either the parents' education level or their cultural interestedness increased.

After establishing associations among the cultural capital variables, we used the Spearman correlation coefficient and

cross-tabulations to confirm that a respondent's age, gender, occupational class, income level and area of residence were associated with his/her education level and cultural participation accordingly (Figure 1). Slightly surprisingly, the respondents' current family structure had no statistically significant association with their cultural participation; we thus we omitted this variable from the MRA.

Following the preliminary analysis, we inserted the variables into the MRA model. The predicted variables were the respondents' level of education (Table 2) and cultural participation (Table 3). We used a stepwise modelling strategy: at Step 1, we used only one predictor; at Step 2, we inserted all the predictors (see Figure 1). Step 1 is reported as Models 1–2 in Table 2 and Step 2 as Model 3; correspondingly, in Table 3, Models 1–3 represent Step 1, and Model 4 is Step 2.

Table 2 shows the results of the MRA, in which the predicted variable is the respondents' education level, and the predictors at Step 1 are the parents' level of education (Model 1) and cultural interestedness (Model 2). At Step 2, Model 3 includes both parents' level of education and cultural interestedness, with the respondents' age and gender controlled for. The reference category in the MRA for the respondents' education level was set at the basic education level.

The model-fitting information presented in Table 2 suggests a decent fit for Model 3, with an overall prediction accuracy of 45.2 per cent and a pseudo-R2 of 22.8 per cent. Table 2 shows that parents' education level significantly influenced that of their children, and after controlling for parents' cultural interestedness and respondents' gender and age, this influence remained prevalent in terms of the AME sign, magnitude and statistical significance. This result was expected due to the well-known intergenerational transmission of education in Finland.

Our main finding is that parents' cultural interestedness has an effect on their children's level of education but that this effect almost vanishes after controlling for parents' education level and respondents' age and gender. More detailed modelling showed that the effect of parents' cultural interestedness can be explained by parents' education level. Thus, our analysis suggests that in Finland, parents' cultural interestedness has no independent effect on their children's education level.

Table 3 presents the MRA results for the respondents' cultural participation. At Step 1, the predictors are the parents' education level (Model 1) and cultural participation (Model 2) and the respondents' education level (Model 3). At Step 2, Model 4 included all the aforementioned variables, with the respondents' age, gender, occupational class, income level and area of residence controlled for. The MRA reference category was 'no participation'.

The model-fitting information for Model 4 again suggests a decent fit, with an overall prediction accuracy of 53.8 per cent and a pseudo-R2 of 23.4 per cent. Table 3 shows that both parents' education level (Model 1) and their cultural interestedness (Model 2) were significant predictors of the respondents' cultural participation. As expected, this was also true for the respondents' level of education (Model 3). For example, compared to respondents whose parents had a basic education, those with the most highly educated parents were, on average, 21.8 percentage points more likely to have high participation in cultural activities. Conversely, compared to children of parents with no cultural interestedness, children of parents with very high cultural interestedness were, on average, 25.1 percentage points less likely to participate in no cultural activities.

At Step 2, Model 4, as expected, we observed that all three cultural capital variables lost a considerable amount of their explanatory power: the magnitudes of the AMEs were, in general, halved, and their statistical significance decreased. Three main results can be drawn from Model 4: first, all three cultural capital variables retained substantial explanatory power; second, all three variables had similar patterns of influence; and third, all three variables yielded nearly the same magnitudes and statistical significance. Additionally, besides gender and a few sporadic exceptions, the control variables had no statistically significant influence over the respondents' cultural participation at Step 2. Most notably, the respondents' age and occupational status had no effect in Model 4.

Two general conclusions can be drawn from the analysis presented here. First, the analysis demonstrates the associations between the forms of cultural capital of parents and their children and that cultural capital also appears to be intergenerationally transmitted in Finland in an embodied form. Second, the intergenerational associations were relatively strong compared to the associations of the sociodemographic control variables with the respondents' cultural capital. Moreover, the intergenerational associations were substantially preserved when the sociodemographic variables were controlled for.

Discussion

Inspired by classical studies of social reproduction (DiMaggio 1982; Bourdieu & Passeron 1977; Bourdieu 2006), and following the example of more recent empirical studies (Kraaykamp & van Eijck 2010; Mohr & DiMaggio 1995; Willekens & Lievens 2014), we analysed the intergenerational transmission of cultural capital in Finland. Our research questions concerned, first, the potential association of parents' embodied and institutionalized cultural capital with the institutional cultural capital of their children and, second, the association of parents' embodied and institutionalized cultural capital with their children's embodied cultural capital. We analysed cultural capital in terms of the education levels of both respondents and their parents, the cultural participation of respondents and the cultural interestedness of their parents.

We found that parents' education level strongly influenced that of their children but that parents' cultural interestedness had no independent effect on their children's education level. Recalling that we had no corrections, this was thus a lower bound, and a more nuanced analysis might have revealed the existence of such an effect (cf. de Vries & de Graaf 2008). It is somewhat surprising that parents' embodied cultural capital did not appear to influence the educational attainment of

Table 2
Multinominal logistic regression on the respodent's level of education (average marginal effects). N=1,279.

Respondent's level of education		Basic education	Secondary education	Lower higher education	Higher education
MODEL 1: Parent's level of education only					
Parent's level of education (reference: basic education)					
	Less than basic education	.122*	.003	-.091*	-.034*
	Secondary education	-.110***	-.020	.070*	.060**
	Lower higher education	-.171***	-.152***	.139***	.184***
	Higher education	-.187***	-.204***	-.012	.402***
MODEL 2: Parent's cultural interestedness only					
Parent's cultural interestedness (reference: no interestedness)					
	Slight interestedness	-.059	-.039	.030	.067**
	Intermediate interestedness	-.043	-.052	-.012	.107***
	High interestedness	-.045	-.141**	.080	.106**
	Very high interestedness	-.110***	-.089*	.047	.151***
MODEL 3: Parent's level of education and cultural interestedness; respondent's gender and age controlled for					
Parent's level of education (reference: basic education)					
	Less than basic education	.092*	.038	-.098*	-.033
	Secondary education	-.082**	-.067	.087*	.062**
	Lower higher education	-.144***	-.201***	.156***	.187***
	Higher education	-.162***	-.259***	.001	.420***
Parent's cultural interestedness (reference: no interestedness					
	Slight interestedness	-.021	-.018	-.012	.051
	Intermediate interestedness	.009	-.017	-.053	.062*
	High interestedness	.032	-.102*	.035	.036
	Very high interestedness	-.019	-.019	.011	.026

MODEL 1: -2LogLikelihood=75.73, $\chi 2$ = 241.52,df=12, p<0.001, Nagelkerke R2=18.7 %, Accuracy =43.8 %
MODEL 2: -2LogLikelihood=80.38, $\chi 2$ = 44.16,df=12, p<0.001, Nagelkerke R2=3.7 %, Accuracy =40.0 %
MODEL 3: -2LogLikelihood=2671.53, $\chi 2$ = 302.46,df=30, p<0.001, Nagelkerke R2=22.8 %, Accuracy =45. 2%

Table 3
Multinominal logistic regression on the respodent's cultural participation (average marginal effects). N=1,279.

Respondent's cultural participation	No participation	Intermediate participation	High participation
MODEL 1: Parents's level of education only			
Parent's level of education (reference: basic education)			
Less than basic education	.040	-.013	-.027
Secondary education	-.095**	.004	.091***
Lower higher education	-.250***	.080*	.170***
Higher education	-.307***	.089	.218***
MODEL 2: Parent's cultural interestedness only			
Parent's cultural interestedness (reference: no interestedness)			
Slight interestedness	-.097*	.054	.042
Intermediate interestedness	-.121**	.032	.089**
High interestedness	-.235***	.091	.144***
Very high interestedness	-.251***	.108*	.142***
MODEL 3: Respondent's level of education only			
Respondent's level of education (reference: basic education)			
Secondary education	-.120**	.071	.050
Lower higher education	-.223***	.108**	.116***
Higher education	-.343***	.156**	.187***
MODEL 4. Parent's level of education and cultural interestedness and respodent's level of education; respondent's gender, age, occupational class, income level and area of residence controlled for			
Parent's level of education (reference: basic education)			
Less than basic education	-.023	.023	.000
Secondary education	-.017	-.032	.050
Lower higher education	-.111*	.027	.084*
Higher education	-.127*	.025	.102*
Parent's cultural interestedness (reference: no interestedness)			
Slight interestedness	-.050	.029	.021
Intermediate interestedness	-.055	-.009	.064*
High interestedness	-.145**	.053	.092*
Very high interestedness	-.134**	.057	.078*
Respondent's level of education (reference: basic education)			
Secondary education	-.089*	.028	.061
Lower higher education	-.127**	.023	.104**
Higher education	-.191**	.086	.105*

MODEL 1: -2LogLikelihood=54.46, $\chi 2$ = 95.49,df=8, p<0.001, Nagelkerke R2=8.2 %, Accuracy =48.9 %
MODEL 2: -2LogLikelihood=55.94, $\chi 2$ = 48.66,df=8, p<0.001, Nagelkerke R2=4.3 %, Accuracy =47.2 %
MODEL 3: -2LogLikelihood=45.69, $\chi 2$ = 62.24,df=6, p<0.001, Nagelkerke R2=5.4 %, Accuracy =47.2 %
MODEL 4: -2LogLikelihood=2281.71, $\chi 2$ = 283.32,df=48, p<0.001, Nagelkerke R2=23.4%, Accuracy =53.8 %

their children, as reported elsewhere (e.g., Kraaykamp & van Eijck 2010; Xu & Hampden-Thompson 2011). One explanation might be that mere interestedness is too moderate an indicator of parents' embodied cultural capital, and it would require a stronger measure, such as parents' actual participation in cultural activities, for the effect to emerge. Inquiring about parents' actual participation might, however, be more vulnerable to memory bias than more general questions regarding interestedness, and the analysis would require focusing the data collection on families with young children or using panel data (e.g., Kraaykamp & van Eijck 2010; Willekens & Lievens 2014).

In the case of respondents' cultural participation, we found that both parents' level of education and cultural participation, together with the respondents' level of education, influenced their cultural participation and that these effects were mostly preserved after controlling for sociodemographic factors. Our results are concurrent with international studies on the intergenerational transmission of cultural capital (e.g., Kraaykamp & van Eijck 2010; Nagel 2009; Willekens & Lievens 2014). Importantly, the parents' forms of cultural capital seemed to be as influential as the respondents' education and more influential than the sociodemographic factors influencing the unequal distribution of cultural practices in Finland. This suggests an intergenerational transmission of a 'culturally oriented lifestyle' (Nagel 2009) in Finland, over which subsequent socialization may have limited influence. Either way, while an earlier analysis (Purhonen et al. 2014) has shown that individuals' education, age and gender are the most important factors in the unequal distribution of cultural practices in contemporary Finland, our results suggest that parental cultural capital should be featured amongst the most important factors.

Thus, without being an exception from the international point of view, cultural resources and assets inherited from one's family of origin appear to be a potential source of social inequality in contemporary Finland. Cultural capital contributes to social mobility and social reproduction not only through the intergenerational transmission of educational attainment but also through the transmission of embodied cultural capital, that is, participation and involvement in highbrow culture. This inheritance of embodied cultural capital can be seen as consolidating and reproducing cultural hierarchies and inequality of access to cultural services and engagement (their benefits to well-being are widely known; see, e.g., Wheatley & Bickerton 2017). This, along with the fact that culturally disengaged people most often come from socially disadvantaged backgrounds, may also explain why Finnish lifestyles and tastes are still structured by a relatively traditional division between highbrow and popular culture (Purhonen et al. 2014).

The main limitation of our study is our use of cross-sectional data, which prohibited us from making causal inferences. Our results thus remain at the level of demonstrating existing associations. Conversely, cross-sectional data prohibit the tracking of historical changes. As Kivinen et al. (2012) note, there are indications that the inheritance of education has decreased during the past few decades, which suggests that the inheritance of embodied cultural capital might also be decreasing. This question is beyond our remit, but it remains significant for future studies. Moreover, our data concerning parental cultural capital came from retrospective questions that were sensitive to memory bias; thus, our results are somewhat tentative. Therefore, although we stayed on the safe side regarding the potential bias attributable to memory effects (which underestimates parental influence on respondents' cultural capital), we must remain cautious about the fact that 'it would be simplistic to assume that there is no need to be concerned about the biases caused by measurement error' (de Vries & de Graaf 2008, 324).

Another limitation stems from the rather modest response rate of our survey data, which makes it possible to call into question the representativeness of the sample. Although we used the data as weighted by an index variable (calculated by Statistics Finland) that corrected nonresponse biases in terms of gender, age and, most importantly, education level, one may ask whether the sample was capable of covering the most disadvantaged groups, as measured by embodied cultural capital. While recognizing this problem at a general level (the most culturally disengaged groups are most likely passive in responding to surveys on cultural matters), the problem is not severe in this study as the culturally 'passive' groups were substantial enough in the first place, in terms of both respondents' cultural participation and their parents' cultural interestedness.

These limitations notwithstanding, it appears evident that parental cultural capital plays an important role in the distribution of cultural practices in Finland and that this role needs further analysis. We therefore propose that parental cultural capital should be taken into account in future studies analysing the distribution of cultural practices in Finland.

Acknowledgements

The authors would like to thank Antti Saastamoinen from the VATT Institute for Economic Research for his help with STATA and discussion regarding the interpretation of average marginal effects..

References

Andersen, I., & Jaeger, M. (2015). Cultural capital in context: heterogeneous returns to cultural capital across schooling environments. *Social Science Research*, *50*, 177–188.

Bennett, T., Savage, M., Silva, E. B., Warde, A., Gayo-Cal, M., & Wright, D. (2009). *Culture, class, distinction*. New York: Routledge.

Björklund, A., & Jäntti, M. (2009). Intergenerational income mobility and the role of family background. In W. Salverda, B. Nolan, & T. Smeeding (Eds.), *The Oxford handbook of economic inequality* (pp. 491–521). Oxford: Oxford University Press.

Bourdieu, P. (1973). Cultural reproduction and social reproduction. In R. Brown (Ed.), *Knowledge, education and cultural change* (pp. 71–112). London: Tavistock.

Bourdieu, P. (1984). *Distinction: a social critique of the judgement of taste*. London: Routledge & Kegan Paul.

Bourdieu, P. (1989). Social space and symbolic power. *Sociological Theory*, *7*, 14–25.

Bourdieu, P. (1998). *Practical reason: on the theory of action*. Stanford: Stanford University Press.

Bourdieu, P. (2006). The forms of capital. In H. Lauder, P. Brown, J.-a. Dillabough, & A. H. Halsey (Eds.), *Education, globalization and social change* (pp. 105–118). Oxford: Oxford University Press.

Bourdieu, P., & Passeron, J.-C. (1977). *Reproduction in education, society and culture*. London: Sage.

Bowles, S., & Gintis, H. (2002). The inheritance of inequality. *The Journal of Economic Perspectives*, *16*, 3–30.

Breen, R. (2004). The comparative study of social mobility. In R. Breen (Ed.), *Social mobility in Europe* (pp. 1–16). Oxford: Oxford University Press.

Breen, R., & Luijkx, R. (2004). Conclusions. In R. Breen (Ed.), *Social mobility in Europe* (pp. 383–410). Oxford: Oxford University Press.

Chan, T. W. (2010). Conclusion. In T. W. Chan (Ed.), *Social status and cultural consumption* (pp. 232–251). Cambridge: Cambridge University Press.

Daenekindt, S., & Roose, H. (2013). Cultural chameleons: social mobility and cultural practices in the private and the public sphere. *Acta Sociologica*, *56*, 309–324.

De Graaf, N., De Graaf, P., & Kraaykamp, G. (2000). Parental cultural capital and educational attainment in the Netherlands: a refinement of the cultural capital perspective. *Sociology of Education*, *73*, 92–111.

De Vries, J., & de Graaf, P. (2008). Is the intergenerational transmission of high cultural activities biased by the retrospective measurement of parental high cultural activities? *Social Indicators Research*, *85*, 311–327.

DiMaggio, P. (1982). Cultural capital and school success: The impact of status culture participation on the grades of US high school students. *American Sociological Review*, *47*, 189–201.

DiMaggio, P., & Mukhtar, T. (2004). Arts participation as cultural capital in the United States, 1982–2002: Signs of decline? *Poetics*, *32*, 169–194.

Dumais, S. A. (2002). Cultural capital, gender, and school success: the role of habitus. *Sociology of Education*, *75*, 44–68.

Erola, J., & Moisio, P. (2002). Jähmettyikö Suomi? Sosiaalinen liikkuvuus ja pitkäaikaistyöttömyys Suomessa 1970-1995. *Sosiologia*, *39*, 185–199.

Grusec, J. E., & Hastings, P. D. (2008). Introduction. In J. E. Grusec (Ed.), *Handbook of socialization: theory and research.* (pp. 1–9). New York: The Guilford press.

Heckman, J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, *312*, 1900–1902.

Hertz, T., Jayasundera, T., Piraino, P., Selcuk, S., Smith, N., & Verashchagina, A. (2007). The inheritance of educational inequality: International comparisons and fifty-year trends. *The B.E. Journal of Economic Analysis & Policy*, *7*.

Holt, D. (1997). Distinction in America? Recovering Bourdieu's theory of tastes from its critics. *Poetics*, *25*, 93–120. Retrieved 2017-07-24, from `http://www.sciencedirect.com/science/article/pii/S0304422X97000107`

Hout, M., & DiPrete, T. A. (2006). What we have learned: RC28's contributions to knowledge about social stratification. *Research in Social Stratification and Mobility*, *24*, 1–20.

Härkönen, J. (2010). Sosiaalinen periytyvyys ja sosiaalinen liikkuvuus. In J. Erola (Ed.), *Luokaton Suomi? Yhteiskuntaluokat 2000-luvun Suomessa.* (pp. 51–66). Helsinki: Gaudeamus.

Jenkins, R. (2014). *Pierre Bourdieu*. London & New York: Routledge.

Kahma, N. (2011). *Yhteiskuntaluokka ja maku*. Sosiaalitieteiden laitoksen julkaisuja 8/2011. Helsinki: University of Helsinki.

Kivinen, O., Hedman, J., & Kaipainen, P. (2012). Koulutusmahdollisuuksien yhdenvertaisuus Suomessa. Eriarvoisuuden uudet ja vanhat muodot. *Yhteiskuntapolitiikka*, *77*, 559–566.

Kraaykamp, G., & Van Eijck, K. (2010). The intergenerational reproduction of cultural capital: a threefold perspective. *Social Forces*, *89*, 209–231.

Lamont, M., & Lareau, A. (1988). Cultural capital: allusions, gaps and glissandos in recent theoretical developments. *Sociological Theory*, *6*, 153–168.

Lareau, A. (2003). *Unequal childhoods: class, race, and family life*. Berkeley: University of California Press.

Lareau, A., & Weininger, E. B. (2003). Cultural capital in educational research: a critical assessment. *Theory and Society*, *32*, 567–606.

Merenluoto, S. (2009). The connection of cultural capital with success in master's degree programs in Finnish higher education. *Research on Finnish Society*, *2*, 29–38.

Mohr, J., & DiMaggio, P. (1995). The intergenerational transmission of cultural capital. *Research in Social Stratification and Mobility*, *14*, 167–200.

Mood, C. (2010). Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review*, *26*, 67–82.

Nagel, I. (2009). Cultural participation between the ages of 14 and 24: intergenerational transmission or cultural mobility? *European Sociological Review*, *26*, 541–556.

Nummenmaa, L. (2004). *Käyttäytymistieteiden tilastolliset menetelmät*. Helsinki: Tammi.

OECD. (2015). *Education at a Glance 2015: OECD Indicators.* Paris: OECD Publishing.

Pekkala Kerr, S., & Rinne, R. (2012). Koulutus ja väestön taloudellinen ja sosiaalinen liikkuvuus 1900-luvulla. In P. Kettunen & H. Simola (Eds.), *Tiedon ja osaamisen Suomi: kasvatus ja koulutus Suomessa 1960-luvulta 2000-luvulle.* (pp. 321–344). Helsinki: Suomalaisen kirjallisuuden seura.

Purhonen, S., Gronow, J., Heikkilä, R., Kahma, N., Rahkonen, K., & Toikka, A. (2014). *Suomalainen maku: kulttuuripääoma, kulutus ja elämäntyylien sosiaalinen eriytyminen*. Helsinki: Gaudeamus.

Robbins, D. (2005). The origins, early development and status of Bourdieu's concept of 'cultural capital'. *The British Journal of Sociology*, *56*, 13–30.

Sirniö, O., Martikainen, P., & Kauppinen, T. M. (2013). Intergenerational determinants of income level in Finland. *Social Forces*, *92*, 463–490.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Boston: Pearson / Allyn & Bacon.

Tanskanen, A. O., Erola, J., & Kallio, J. (2016). Parental resources, sibship size, and educational performance in 20 countries: evidence for the compensation model. *Cross-Cultural Research*, *50*, 452–477.

van Hek, M., & Kraaykamp, G. (2015). How do parents affect cultural participation of their children? Testing hypotheses on the importance of parental example and active parental guidance. *Poetics*, *52*, 124–138.

Weber, M. (1946). Class, status, party. In H. Gerth & C. W. Mills (Eds.), *From Max Weber: essays in Sociology* (pp. 180–195). New York: Oxford University Press.

Wheatley, D., & Bickerton, C. (2017). Subjective well-being and engagement in arts, culture and sport. *Journal of Cultural Economics*, *41*, 23–45.

Willekens, M., Daenekindt, S., & Lievens, J. (2014). Whose education matters more? Mothers' and fathers' education and the cultural participation of adolescents. *Cultural Sociology*, *8*, 291–309.

Willekens, M., & Lievens, J. (2014). Family (and) culture: the effect of cultural capital within the family on the cultural participation of adolescents. *Poetics*, *42*, 98–113.

Witting, M., & Keski-Petäjä, M. (2016). Vanhempien koulutus vaikuttaa lasten valintoihin. *Tieto & Trendit*, *2*. Retrieved from <http://tietotrendit.stat.fi/mag/article/168/>

Xu, J., & Hampden-Thompson, G. (2011). Cultural reproduction, cultural mobility, cultural resources, or trivial effect? A comparative approach to cultural capital and educational performance. *Comparative Education Review*, *56*, 98–124.

APPENDIX

Table 1. Distributions of all variables used in the analysis.

Total	% 100	N 1279
Parents' level of education		
Less-than-basic education	9.4	120
Basic education	28.6	366
Secondary education	31.0	397
Lower higher education	19.1	244
Higher education	11.9	152
Parents' cultural interestedness		
No interestedness	20.3	260
Slight interestedness	23.9	305
Intermediate interestedness	23.9	305
High interestedness	13.9	177
Very high interestedness	18.1	231
Respondent' level of education		
Basic education	14.9	189
Secondary education	39.3	501
Lower higher education	30.6	390
Higher education	15.2	194
Respondent's cultural participation		
No participation	44.3	567
Intermediate participation	37.1	474
High participation	18.6	238
Respondent's gender		
Male	48.2	617
Female	51.8	662
Respondent's age (mean, standard deviation)	44.54	15.43
Respondent's occupational class		
Working class	30.4	388
Intermediate	32.6	416
Professional-executive	24.9	318
Other	12.2	156
Respondent's net income		
Less than 500 eur/month	12.1	150
500–999 eur/month	17.9	222
1000–1499 eur/month	24.9	309
1500–1999 eur/month	21.7	270
2000–2499 eur/month	11.9	147
2500 eur/month or more	11.6	144
Respondent's area of residence		
Country	14.4	184
Village	17.5	223
Suburb	51.3	653
City centre	16.8	213