

INTERGENERATIONAL TRANSMISSION OF EDUCATIONAL FIELD RESOURCES. THE IMPACT OF PARENTAL RESOURCES AND SOCIALISATION PRACTICES ON CHILDREN'S FIELDS OF STUDY IN THE NETHERLANDS

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1. Introduction

The impact of family background on educational attainment is a central issue in social stratification research. Most research on this topic concentrates on social inequality with respect to educational *level*. However, in highly educated societies like the Netherlands, the country of our interest, other aspects of education may be relevant in judging educational inequality. As a growing segment of the population is becoming specialised in specific scholastic *fields*, the extent to which parental background affects the choice of a field of study (e.g. humanities, law) is an important new aspect of educational inequality. Moreover, if fields of study are assumed to provide a specific type of field resource, we can examine the social distribution of relevant educational resources in the population. In general, children are likely to acquire the specific field resources they have become familiar with at home. Bourdieu (1984) distinguished economic and cultural resources to describe two separate social hierarchies. The family and the school are both thought to reinforce the reproduction of these two types of resources. We therefore examine the impact of family background on the acquired cultural and economic educational field resources. Parental effects on communicative and technical field resources are also explored. Information from a nationally representative sample has enabled us to scale fields of study to the extent that they provide students with each of these four types of resources. Hypotheses about the intergenerational transmission of types of resources can thus be directly tested without having to assume that certain fields generate specific resources. In addition to the impact of socio-structural characteristics like parental education and social class, we also study the extent to which parental influence on field resources is exerted by way of specific types of socialisation at home. Our first research question is: To what extent does family background explain the acquired educational field resources of children? Our second research question addresses the extent to which parental effects differ for sons and daughters: To what extent does parental socialisation affect the acquisition of field resources by sons and daughters differently?

Recent findings suggest that the effects of parental characteristics on the

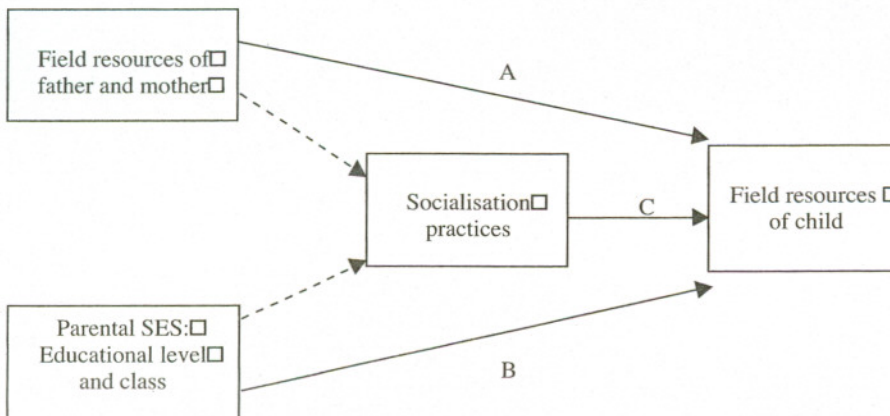
educational level of children witnessed a decrease in the Netherlands (Shavit & Blossfeld 1993), suggesting more equal opportunities for different social classes. This trend towards less family influence on the educational career over cohorts suggests that the openness of Dutch society has increased. However, if the acquisition of educational field resources has become more dependent on family background, the openness of Dutch society might not have increased to the extent suggested by research on the relation between family background and educational level. Our third research question deals with trends in the effects of parental characteristics on the attainment of field resources: To what extent has the impact of family background on field resources changed across birth cohorts?

2. Theory and hypotheses

2.1 Parental effects on field resources

Three main explanations for the acquisition of field resources, all related to family background, are considered. They are shown in Figure 1. The first explanation assumes that children want to achieve the type of field-related educational resources their parents have. In this explanation, the intergenerational transmission of field resources is a central issue (arrow A). The second explanation assumes that social status aspects also affect the acquisition of field-related educational resources (B). The third explanation assumes that differences in parental socialisation practices establish the preference for specific fields. For example, a literary socialisation will inspire children to choose a field where they acquire extensive cultural resources (C).

Figure 1 Diagram of three main explanations for the acquisition of field resources



A: Intergenerational transmission of field resources

Educational career decisions are affected by the background family. Especially the decision to continue to a subsequent educational level has attracted a great deal of attention in educational research. The market model of educational stratification developed by Boudon (1974; see also Goldthorpe 1996), assumes that children take their parents' social status as a reference point in their school continuation decisions. Children want to at least attain their parents' social position, so the costs of a specific educational program are perceived as lower and the gains as higher if their parents have also attained this educational level. Erikson and Jonsson (1996) assert that the social differences in costs-benefits perception are partly based upon high status parents' abilities to give their children accurate information about the educational system and help them with their homework. If children take their parents' social position as a point of reference for their own aspirations, they are likely to be attracted to the same branches in the educational system as their parents. Parents provide their children with accurate information about the difficulties and labour market opportunities of their own field of study. This attracts the children into the same educational fields, such as economic and technical fields, if there are good labour market prospects. Parents' ability to help their children with their homework strongly depends on their having been educated in the same field. Thus we can generally expect parental field-related educational resources to exert a positive influence on the same type of field resources in their children.

B: Parental SES and field resources

A strict interpretation of Boudon's (1974) market model holds that the evaluation of costs and benefits is crucial for the decision to choose a specific field of study. If this holds for everyone to the same extent, everyone would be inclined to choose the field of study with the highest salary in the end. However, considerations concerning income later in life are not equally important to everyone. Following Kelsall et al. (1972), we expect that especially in low SES families, labour market prospects are a very important reason to choose a specific field of study. In these families, personal achievement is mainly evaluated on socio-economic grounds rather than cultural ones. Davies and Guppy (1997: 1427) presented the idea that 'able working-class students who have reached college are more likely to view their undergraduate education instrumentally as a route to upward mobility, and are more likely to enroll in lucrative fields that are of a relatively technical nature, such as engineering or business'. But labour market incentives are not the only explanation why low status children choose technical fields. According to Kelsall et al. (1972: 53), working-class children 'will tend to prefer technology and by association, science courses, not only because they are seen to be related to future work, but also because they are likely to lie within the occupational experience of many manual working-class

fathers'. The argument presented above, that parents' ability to provide information influences educational choices, is in keeping with this reason.¹ Davies and Guppy (1997) indeed found that lower SES children often ended up in high-income fields later in life. Dutch research demonstrated that children from less educated backgrounds and lower status groups are relatively likely to choose technical fields at the various educational levels (Meesters 1992).

Although there may be some fluctuations in the labour market prospects of various fields of education, in general economic and technical training increase labour market success (Kalmijn & Van der Lippe 1997; Marini & Fan 1997). Research indicates that there are empirical grounds for assuming that the effects of fields of study on income in the United States are stable. At any rate, this was the case in the 1980s (Loury 1997). In sum, we expect children from low-class backgrounds to attain many economic and technical resources. The impact of social class is expected to be stronger on technical resources, since it is not only labour market opportunities, but parental familiarity with the subject as well that determines a preference for technical fields.

In addition, the intellectual and aesthetic competencies and skills that are central to cultural fields of study are less appealing to low SES groups than to elite groups. Since the children of highly educated parents are likely to choose artistic subjects in secondary school (Nagel et al. 1996), children from the middle and upper class or highly educated backgrounds can be expected to obtain extensive cultural field resources. Since parental SES has a positive influence on social skills (Hauser & Huang 1997), and social skills are believed to be highly relevant in the social fields of study, children from the middle and upper class or highly educated backgrounds can also be expected to acquire extensive communicative resources.

C: Types of socialisation and field resources

In addition to the direct transmission of educational preferences, resulting in a positive association between the field resources of parents and children and the impact of parental SES, factors related to specific parental socialisation can also influence the acquired scholastic field resources. For each type of resource, we examine a specific type of socialisation that is expected to exert an influence.

In educational stratification research, the amount of cultural capital in the family has frequently been measured by parental involvement in High Culture (e.g. De Graaf 1986; Ganzeboom, De Graaf & Róbert 1990; Kalmijn & Kraaykamp 1996; Aschaffenburg & Maas 1997; Niehof 1997). The reason this type of behaviour is relevant to the educational performance of children is, however, somewhat unclear. The cultural behaviour of parents is usually presumed to indicate the familiarity with the dominant cultural codes of society (Bourdieu & Passeron 1990; Lamont & Lareau 1988), which directly ensues from Bourdieu's theory on cultural capital. However, assuming that parental

reading behaviour is more directly related to scholastic performance than attending cultural performances because of the relevance of language and texts at school, De Graaf et al. (2000) observed in the Netherlands a much greater effect of parental reading behaviour than of parental outdoor cultural participation on educational attainment (in Australia, see Crook 1997). Literary socialisation, as is identified by parental reading behaviour or the number of books the parents own, can be expected to exert an influence on the attained cultural field resources of children. If children grow up in a household where reading is a frequent way of spending leisure time, or where numerous books are available, they are used to written texts and probably to writing. As a consequence, they will be more apt to be attracted to educational programs where a substantial part of the curriculum is devoted to High Culture. The impact of the cultural capital in the home environment on the choice of a field of study has been examined in several countries. In Norway, Hansen (1997) found that children from high cultural backgrounds relatively often entered academic programs on the humanities or social sciences. Dutch research has shown that parental participation in art and music makes children more apt to choose cultural subjects in secondary school (Nagel, Ganzeboom, Haanstra & Oud 1996). Cultural capital measured by parental participation in High Culture did not, however, affect the choice of 'high prestige' fields (e.g. medicine, law) in Great Britain (Cheung 1997), or of 'economically lucrative' fields in the USA (Davies & Guppy 1997). We think they did not find any effect of parental cultural participation on field choice because children of cultural parents have less incentive to look for educational fields related to high incomes or prestige. Instead, they want to achieve cultural resources when they study.

An economically wealthy environment in people's childhood is likely to attract them to economic educational programs. If parents own numerous luxury goods, their children are socialised in a luxurious environment. In order to be able to live in a wealthy environment themselves, these children will go into educational fields that enable them to acquire economic resources. This way, they increase the likelihood of finding a job and earning high wages later in life, thus reproducing the family type of capital. The amount of luxury goods in the household has sometimes been used to examine the impact of financial capital on educational attainment (De Graaf 1989; Niehof 1997; Wong 1998). Based on Bourdieu's theory, these researchers explored the relative influence of financial and cultural capital on educational attainment simultaneously, and found that the impact of financial resources declined over birth cohorts.

The social behaviour of parents has often been associated with educational performance (Coleman 1988; Teachman, Paasch & Carver 1996; Büchel & Duncan 1998). In this line of research, the contacts parents have with their children's school or other institutions is considered social capital, and is expected to increase the children's educational performance. In general, we expect

parental interaction with social institutions to provide children with a social awareness. The children of 'communicative' parents experience social interaction as an appealing activity (Cochran et al. 1990). In our opinion, this kind of communicative socialisation will stimulate children to choose fields where social interaction is important. They probably feel more at home in a communication-centered field of study and would like to find a job where interaction with other people is central, for example as a teacher, doctor, or social worker.

The decision to choose a technical field of study, where students mainly generate technical resources, is probably most stimulated by a 'technical' kind of socialisation. If parents often do things like fix the car or decorate the home, children get interested in practical skills. They see how useful it is to take care of their own car and home, and wish to acquire technical skills. In addition, they are probably interested in jobs where technical skills are needed, and thus choose fields of study that prepare them to do these jobs.

The types of socialisation that parents give their children is probably affected by the parents' field resources. Parents who have acquired extensive cultural resources in their education will be more likely to socialise their children to be avid readers. This implies that parental cultural field resources affect children's cultural field resources because they are socialised in a cultural way. Since social behaviour like belonging to organisations is frequently found among people with ample communicative resources (Van de Werfhorst & Kraaykamp, 2000), communicative field resources can be expected to be reproduced via socialisation. However, economic life style behaviour is less dependent on (economic) field resources (Van de Werfhorst, Kraaykamp & De Graaf, 1997; Van de Werfhorst & Kraaykamp, 2000), which makes it less likely for the intergenerational reproduction of economic resources to be intermediated by a wealthy socialisation. With respect to technical resources it is unclear whether intergenerational reproduction occurs by way of technical socialisation.

2.2 Gender differences in parental effects on field resources

With respect to children's educational level, it has been argued that the effects of parents differ for sons and daughters (DiMaggio 1982; Teachman 1987), especially if the father's and mother's characteristics are examined separately (Van der Lippe, Van Dam & Ganzeboom 1995). Compared to educational level, sex segregation in fields of education has remained relatively stable (Jacobs 1995, Bradley 2000), which makes it interesting to investigate the differing effects of fathers and mothers on their sons and daughters. Dryler (1998) studies the gender division in field choice in Sweden from the socialisation perspective. She examined gender-typical versus gender atypical educational choices, with the choice of male-dominated educational fields regarded as gender-typical for girls, and vice versa. Hypotheses were tested on whether children are likely to choose the same educational fields as their parents (same sec-

tor effect) and whether gender-atypical parents (e.g. a mother educated in technology) have gender-atypical children (e.g. a son in the care sector or daughter in technology). In general, Dryler's results confirm the same sector hypothesis that children are likely to choose the fields their parents familiarised them with, rather than base their choices on their parents being gender-typical or atypical.

As their intergenerational transmission of field resources is expected to run in part by way of the specific types of socialisation parents give their children, we have concentrated on gender differences in the impact of various types of socialisation. The most tenable argument to explain why men and women choose the fields of their own domain, is that it is a consequence of socialisation into gender roles. Gender differences in ability can not explain the persistence of segregation (Jonsson 1999, Turner & Bowen 1999), nor can economic arguments holding that, on the labour market, women benefit more from female-dominated fields and men from male-dominated fields (Jacobs 1995). The fact that women anticipate their future role as mother and housewife, makes the decision to choose a nurturing field attractive. Since their future career does not require profitable types of human capital, their field choice may reflect intrinsic motivations such as the subject of study, rather than extrinsic motivations relating to career prospects.

Following DiMaggio (1982), we expect cultural and communicative socialisation to exert more influence on the acquired field resources of daughters than sons, especially with respect to cultural and communicative resources. Furthermore, we expect sons to be more affected by types of socialisation that are typically male, like technical socialisation. The issue is then whether a specific type of socialisation is more effective for either of the sexes.

2.3 Cohort differences in effects on field resources

Changes in time in effects of parents' social position on the educational achievement of their children provide information on the openness of society (Ultee 1989). If educational opportunities are largely determined by family background, a society is believed to be closed, whereas equal opportunities for all the social classes are regarded as an indication of societal openness. An empirical assessment of the effects of parental characteristics on the educational attainment of children in thirteen countries revealed that only in Sweden and the Netherlands have the effects clearly declined, suggesting increasing openness of these societies (Shavit & Blossfeld 1993). In this observed trend towards increasing educational equality in the Netherlands, parents have had fewer and fewer opportunities to keep their offspring ahead. Other intergenerational similarities in education may have gained relevance. Children may increasingly choose the fields where they can reproduce the parental resources. For example, as educational qualifications became more and more important for the population as a whole, the children of the cultural elite could increas-

ingly choose educational fields where cultural resources are acquired. It is no longer enough for them to reach a high educational level, it is now only an education in a cultural field that provides the distinction they aspire to. Children of the economically-oriented segments of society, who increasingly continue to attain a high educational level where they would have left the educational system to earn money a few decades ago, are selected into economic fields of study.

As educational expansion has increased the absolute number of mobile individuals with respect to the educational level, it may be that the intergenerational transmission of field resources reveals a tendency towards immobility. If the association between the parental characteristics and the acquired educational field resources has increased or has simply stabilised, we would argue that the openness of Dutch society has not increased to the same extent as research on the effects on educational level suggests. As fields of study determine individual life styles and labour market opportunities (Van de Werfhorst et al. 1997; Kalmijn & Van der Lippe 1997), the increasing or stable effects of parental socialisation on the acquired field resources across cohorts suggest that crucial social cleavages are maintained.

In addition to changes in parental effects, we have also examined the changes in the effect of gender on field resources. Although women have caught up with men's attained educational level in the recent decades, there is still sizeable segregation with respect to fields of study. We have tested whether the acquisition of field resources remained segregated between the sexes across cohorts, as was previously observed in the US (Jacobs 1995; Stromquist 1993) and various European countries (Van der Lippe & Van Doorne-Huiskes 1995; Wilson 1991).

3. Design

3.1 Data

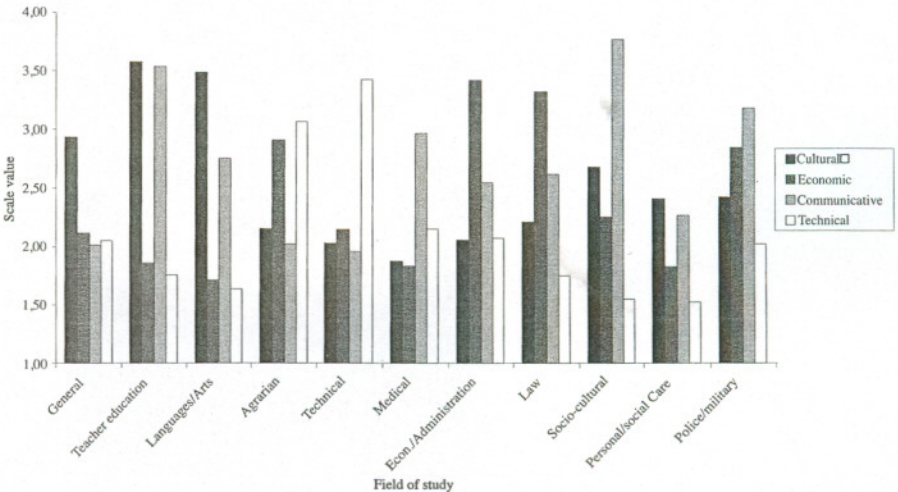
We have used the Family Survey Dutch Population (FSDP) 1998 (De Graaf, De Graaf, Kraaykamp & Ultee 1999) to test our expectations regarding the effects of family background on the field-specific educational resources of children. These data were gathered among a representative sample of the adult population of the Netherlands. The same questionnaire was conducted among the people the respondents lived with or were married to. Information is available on a total of 2,029 individuals. As educational choices are usually made before people decide to live together or to get married, we have treated the primary respondents and their partners independently. The FSDP-1998 data contain information on educational and occupational careers, family background variables, and the socialisation practices and behaviour of parents. They also

address the extent to which attention was devoted to various types of knowledge and skills in the respondent's highest field of study, which has enabled us to construct scales for the amounts of four field resources, i.e. cultural, economic, communicative and technical educational field resources. The construction of these scales is presented in Van de Werfhorst and Kraaykamp (2000). Respondents were selected who were between 25 and 70 years old. After solving missing data problems by examining answer patterns in related items, an analytic datafile remained of 1,588 respondents.¹

3.2 Measurements

Our dependent variables are four scales that measure the amounts of **cultural, economic, communicative and technical resources** that people acquired in their field of study. In order to assess the composition of resources in various educational fields, the respondents were asked to indicate the extent to which attention was devoted to sixteen types of skills and knowledge in their highest completed field of study. First, we took the average score on four items for each type of resource. Then we took aggregated scores for eleven fields, based on the average score of people educated within the field. These scores were constructed independently of the educational level of the respondents; students from different levels within the same field gave equal weights to the sixteen types of knowledge and skills (Van de Werfhorst & Kraaykamp 2000). An advantage of this approach is that the probable effects of the parental characteristics on the four scales are not hidden effects on the educational level of their child. Figure 1 shows the scores on four resources by field of study.² The same scales were used as independent variables for fathers and mothers.

Figure 2: Field Resources by Field of Study



To measure whether a respondent comes from a **lower class background**, we used information about the father's occupation when the respondent was 15 years old. The occupational title, whether the father was self-employed and how many subordinates he had enabled us to construct EGP-classes (Erikson & Goldthorpe 1992). Classes VI (skilled manual workers), VIIa (semi-skilled and unskilled manual workers) and VIIb (farm laborers) were defined as low. The **Educational level of the parents** was measured with five dummy variables that represent clearly distinguishable levels in the Dutch educational system (highest value of both parents): Primary education, lower secondary education (MAVO, VBO), upper secondary education (HAVO, VWO, MBO), vocational college (HBO) and university.

To measure various types of socialisation, we did not examine the fathers' and mothers' characteristics separately. One reason why is that the information is only available at the family level. Another is that for some forms of socialisation, it would be impossible to separate the roles played by each of the parents. For example, when we measure a wealthy socialisation by the luxury goods the parents own, the fathers' and mothers' share cannot be separated because they own most goods jointly. This is why one general measure for each type of socialisation is used.

Literary socialisation was measured by what the parents read (five genres: Dutch literature, detectives and war novels, information books, foreign literature), the number of books the parents owned, and whether the parents read news magazines, whether they had library cards, and whether there was a dictionary in the home. All the items refer to the situation when the respondents were 15 years old. Percentile scores on all items were computed, after which a reliability analysis was conducted (Cronbach's $\alpha=0.80$). Then we took the average score and standardised it for each of four birth cohorts separately: 1932-1941, 1942-1951, 1952-1961 and 1962-1973.

To measure a financially **wealthy socialisation**, parental income obviously provides valuable information. However, it is hard to ask respondents about their parents' income, especially in the past. Another option is to ask respondents what their parents owned and what their home was like when they were children (De Graaf 1989; Niehof 1997). Wong (1998: 9) prefers this proxy of material wealth to a direct income measure, because 'it takes time to accumulate these items and thus material possession reflects a stable and continuous level of wealth'. Furthermore, the possession of material goods is arguably a better measure for a wealthy socialisation than parental income. Growing up in a big house with numerous luxury goods makes people likely to make educational choices that will enable them to have the same kind of material possessions. In our data-set, information was available about parental home-ownership, the number of rooms per inhabitant of the parental home, the number of heated bedrooms, the size of the yard, whether the parents owned a car, cam-

era, freezer, automatic dish washer, VCR, antique furniture, and whether a paid cleaning woman, paid child minder, and paid gardener were employed by the parents. All the items refer to the situation when the respondent was 15 years old. After having computed percentiles for each item, our reliability analysis showed a Cronbach's alpha of .78. An average score was computed on all the items, and standardised for each of the four birth cohorts separately. This way, we accounted for the fact that the likelihood of having parents who owned these items is strongly related to the period when one was raised, since there was a general rise in wealth and technological innovation.

A type of socialisation that tends to make people decide to choose a communicative field of study was measured by way of parental membership in several types of organisations. Parents who join various organisations are assumed to behave in a way that attracts children to social interaction. This may result in their decision to choose an educational field that prepares them for jobs where social interaction is central. The organisations included in our measure of a **communicative socialisation** are labour unions, church congregations, social organisations (e.g. Amnesty International, refugee work), environmental agencies, orchestras, choirs, or theatre clubs, school organisations, and sports clubs. The scale used consists of a within-birth cohort standardised mean value of these percentiled items.

Technical socialisation was measured by four items that indicated whether the parents often did odd jobs in the home: fixing tires, tinkering with the car, decorating the home (painting, hanging wallpaper), and repairing household utensils. Again, the amount of time the parents spent on these technical activities was measured for the respondents' childhood. Answer categories were 'parents never did it themselves', 'parents sometimes did it themselves' and 'parents always did it themselves'. Cronbach's alpha of the percentiled items was .66. Mean values on the four items were standardised within the four birth cohorts.

In order to test whether the effects of their parental background on the educational resources of children differ between the **birth cohorts**, we distinguished four cohorts: 1932-1941, 1942-1951, 1952-1961 and 1962-1973. In all the other models, an interval variable for birth cohort was included, ranging from 0 for respondents born in 1932 to 41 for respondents born in 1973. **Gender** was controlled with a dummy variable (male=1, female=0).

4. Results

To gain insight into the processes that occur at home and affect the acquisition of field-related educational resources, we estimated ordinary least squares regression models for each of our three main explanations separately (parental

field resources, types of socialisation and parental SES), before turning to a model that contains all three groups of explanatory variables (Models I to IV). We prefer this approach to nested models, because it gives us insight into three separate explanations before turning to the strength of explanations after holding constant for the other explanatory variables.

Afterwards, interaction terms of socialisation with gender were added to the model (Model V). Cohort differences in parental and gender effects were examined in Model VI. In all the models, we controlled for gender and birth cohort.

4.1 Effects of parental background on field-specific educational resources

In Model I of Table 1a, the father's and mother's cultural field resources are both influential. The more cultural resources parents acquired in their education, the more cultural field resources their offspring achieve. In Model II, the children of better educated parents acquire extensive cultural field resources, whereas the children with a lower class background do not. Model III examines the effects of several types of socialisation on cultural field resources, and shows that children who are socialised to be avid readers and whose parents are integrated in many social networks acquire extensive cultural resources in their field of study. Model IV integrates all the explanatory variables. The effect of the cultural field resources of parents disappears after holding constant for parental SES and socialisation. The parents' educational level only exerts a limited influence on cultural field resources after controlling for socialisation. The impact of parental education is thus mainly transmitted by way of parental socialisation. Culturally educated parents more often socialise their children into reading, and are more often members of various types of organisations, which encourages their children to choose cultural fields. The impact of a lower class background, however, remains significant; independently of other background characteristics, children of a lower social class hesitate to choose cultural fields of study. Another effect that appears independent of any other explanatory variable is the effect of gender. On average, men acquire less cultural resources than women, indicating that cultural fields are particularly feminine. The effect of birth cohort suggests that over time, the number of people acquiring cultural resources from their education is fairly stable.

Model I for economic field resources (Table 1a) shows that parental field resources exert an influence here as well. The more economic field resources the parents have, the more economic field resources their offspring acquire. Children of better educated parents acquire on average more economic field resources than the children of poorly educated parents (Model II). Lower class children achieve a relatively small extent of economic field resources, which contradicts our expectations regarding the importance they attach to good labour market prospects in making a field choice. Model III shows that a

Table 1a: Unstandardised OLS Regression of Cultural and Economic Field Resources on Parental Characteristics

Model	Cultural field resources				Economic field resources			
	I	II	III	IV	I	II	III	IV
Male	-.173*** (.034)	-.171*** (.034)	-.168*** (.034)	-.165*** (.034)	.231*** (.032)	.234*** (.032)	.233*** (.032)	.229*** (.032)
Birth cohort	.001 (.002)	.001 (.002)	.003 (.001)	.002 (.002)	.011*** (.001)	.012*** (.001)	.014*** (.001)	.012*** (.002)
<i>A: Transmission</i>								
Father's respective field resources	.078*** (.024)			-.054~ (.032)	.116*** (.025)			.086* (.034)
Mother's respective field resources	.059* (.023)			-.034 (.028)	.082* (.082*)		.053 (.033)	.053 (.041)
<i>B: Parental SES</i>								
Parents with primary school		-.255*** (.063)		-.220* (.090)		-.188** (.060)		-.046 (.088)
Parents with lower secondary school diploma		-.114~ (.059)		-.036 (.065)		-.029 (.056)		-.005 (.062)
Parents with upper secondary school diploma		-.049 (.066)		-.012 (.066)		-.036 (.062)		-.043 (.063)
Parents with vocational college degree		<i>Ref.</i>		<i>Ref.</i>		<i>Ref.</i>		<i>Ref.</i>
Parents with university degree		-.056 (.092)		-.094 (.093)		.031 (.087)		.025 (.088)
Low-class background		-.180*** (.039)		-.171*** (.041)		-.121*** (.037)		-.103** (.039)
<i>C: Socialisation</i>								
Literary socialisation			.096*** (.019)	.075*** (.022)			.012 (.018)	-.028 (.021)
Wealthy socialisation			.030 (.019)	.003 (.020)			.042* (.018)	.009 (.019)
Communicative socialisation			.047** (.018)	.044* (.018)			.047** (.017)	.043* (.017)
Technical socialisation			-.021 (.018)	-.013 (.018)			-.023 (.017)	-.008 (.017)
Intercept	2.095*** (.058)	2.526*** (.070)	2.285*** (.047)	2.605*** (.125)	1.418*** (.059)	1.841*** (.065)	1.678*** (.045)	1.558*** (.132)
Adjusted R ²	.033	.057	.054	.068	.105	.105	.094	.110

~p≤.10, *p≤.05, **p≤.01, ***p≤.001 (two-tailed). Source: Family Survey Dutch Population 1998 (N=1,588)

wealthy and a communicative socialisation promote the attained economic field resources. However, the impact of a wealthy socialisation disappears after holding constant for other predictors in Model IV. Children with a lower class background are still reluctant to choose economic fields of study after controlling for socialisation. As affluence is manifested in higher social classes, the stable effect of social class may indicate that material comfort does affect the choice of economic fields. Model IV shows that the impact of the father's economic field resources remains after controlling for other variables. Economic field resources are intergenerationally transmitted from father to child independently of socialisation and SES effects. The mother's field resources, however, no longer explain the acquisition of economic resources. Across cohorts, the level of economic field resources increases: economic fields become more popular among later cohorts. According to Dronkers (1993), the rising popularity of economic fields of study indicates increasing investment in profitable types of human capital in an over-schooled labour market. Lastly, men acquire more economic field resources than women, independently of their parental characteristics.

Communicative field resources (Table 1b) are also positively affected by the corresponding field resources of parents. As with the other types of resources, the effect of the father's field resources is stronger than of the mother's. Model II shows that children from higher SES backgrounds (higher educational levels of parents, higher social classes) achieve more communicative field resources than children from lower SES backgrounds. Literary and communicative socialisation also exert an influence (Model III). Literary socialisation even has a stronger effect on communicative resources than communicative socialisation. If the effects are held constant for variance caused by the other variables in Model IV, however, communicative socialisation is equally important; children of socially active parents attain extensive communicative resources in their studies. In general, socialisation and SES seem to exert the most influence; the intergenerational transmission of communicative field resources goes entirely by way of socialisation and SES. Women acquire more communicative resources than men. In the Netherlands as well, women apparently often choose fields of study with a large social component. The younger birth cohorts acquire more communicative resources than the older ones, which reflects the increasing level of specialisation in education.

Of the field resources of both parents, only the father's technical resources appear to affect the attained technical field resources of children (Table 1b). Parental SES does not affect the acquired technical field resources of children, at least not in Model II. Since parental SES does have a positive effect on the acquisition of other types of field resources, apparently low SES children are more apt to choose a field that provides many technical resources. As specialisation is only possible after a certain number of years of education, acquiring the specialised field resources is positively related to high background status. Another striking

Table 1b: Unstandardised OLS Regression of Communicative and Technical Field Resources on Parental Characteristics

Model	Communicative field resources				Technical field resources			
	I	II	III	IV	I	II	III	IV
Male	-.216*** (.034)	-.213*** (.033)	-.211*** (.034)	-.214*** (.033)	.672*** (.035)	.673*** (.035)	.673*** (.035)	.671*** (.035)
Birth cohort	.006*** (.002)	.006*** (.002)	.009*** (.001)	.007*** (.002)	.007*** (.002)	.007*** (.002)	.008*** (.002)	.008*** (.002)
<i>A: Transmission</i>								
Father's respective field resources	.197*** (.028)			.021 (.041)	.052** (.019)			.070** (.025)
Mother's respective field resources	.074** (.028)			-.021 (.033)	.005 (.041)			.016 (.051)
<i>B: Parental SES</i>								
Parents with primary school		-.448*** (.062)		-.304** (.104)		-.058 (.065)		.134 (.093)
Parents with lower secondary school diploma		-.261*** (.058)		-.161* (.072)		.010 (.061)		.071 (.067)
Parents with upper secondary school diploma		-.180** (.065)		-.134~ (.069)		-.010 (.068)		.012 (.069)
Parents with vocational college degree		Ref.		Ref.		Ref.		Ref.
Parents with university degree		-.087 (.091)		-.116 (.092)		-.055 (.095)		-.074 (.097)
Low-class background		-.214*** (.038)		-.187*** (.040)		-.031 (.040)		-.024 (.042)
<i>C: Socialisation</i>								
Literary socialisation			.113*** (.019)	.053* (.022)			.008 (.020)	.018 (.023)
Wealthy socialisation			.068*** (.019)	.027 (.020)			-.001 (.019)	-.002 (.021)
Communicative socialisation			.056** (.018)	.049** (.018)			.048** (.018)	.047* (.018)
Technical socialisation			-.015 (.018)	.004 (.018)			-.028 (.018)	-.038* (.019)
Intercept	1.818*** (.060)	2.599*** (.069)	2.189*** (.047)	2.476*** (.150)	1.529*** (.066)	1.659*** (.073)	1.612*** (.048)	1.397*** (.134)
Adjusted R ²	.095	.124	.107	.133	.200	.197	.201	.203

~p \geq .10, *p \geq .05, **p \leq .01, ***p \leq .001 (two-tailed). Source: Family Survey Dutch Population 1998 (N=1,588)

finding of Models III and IV is that children whose parents are member of various organisations also acquired extensive technical resources. This implies that

parental membership, interpreted here as a form of communicative socialisation, has a positive impact on the acquisition of all types of educational field resources. This supports Coleman's (1988) approach to social capital, where parents' intensive contact with social institutions is thought to affect children's educational performance. Having been raised in a technically socialising environment does not increase the amount of technical resources acquired in education. Children whose parents often do their own repairs do not enter technical fields of study more often, once gender and birth cohort are controlled for. The effect of gender on technical resources is strong; men have more technical resources related to their field of study than women. This gender difference is stronger than in other types of field resources. Across birth cohorts, the amount of acquired technical resources increases, as do the other types of resources.

Table 2: Unstandardised OLS Regression of Field Resources, Interactions with Gender

Model V	Cultural field resources		Economic field resources		Communicative field resources		Technical field resources	
	Men	Women	Men	Women	Men	Women	Men	Women
Low-class background	-.176	-.160	-.157	-.048	-.231	-.134	.016	-.060
Literary socialisation	.105	.044	-.022	-.032	.059	.048	-.025*	.062
Wealthy socialisation	-.022	.029	-.009	.032	-.009~	.062	-.021	.015
Communicative socialisation	.028	.058	.048	.040	.031	.064	.047	.041
Technical socialisation	-.018	-.006	-.029	.014	.002	.007	-.055	-.022
Adjusted R2 of model with gender-interactions	.067		.110		.133		.206	

~ / * significant deviation from effect for women at $p \leq .10$ / $.05$ (two-tailed tests).

Source: Family Survey Dutch Population 1998 (N=1,588)

* Effects net of other background characteristics of model IV

4.2 Gender differences in effects of parental background on field-specific educational resources

To investigate whether parents' impact on children's educational resources differs for men and women, we estimated a model with interaction terms (model V). Table 2 shows the results. Unstandardised effects are given for men and women separately, obtained from these interaction models. The significance tests represent differences in effects between men and women.

Table 2 makes it clear that only one interaction term has a significant effect at the 5% level: literary socialisation decreases the technical field resources of sons, but has no limiting impact on the acquired technical field resources of daughters. One other interaction effect borders on significance: wealthy socialisation

increases the communicative fields of women, but for men there is no effect. None of the other interaction effects are significant, indicating that socialisation affects boys and girls equally in the acquisition of educational field resources. There is no support for the notion that socialisation determines the gender segregation in fields of study, as is clear from the stable gender effects of models I and

Table 3: Unstandardised Effects of Parental Characteristics for Four Birth Cohorts

Model VI	Cohort 1 1928-1941	Cohort 2 1942-1951	Cohort 3 1952-1961 (Reference)	Cohort 4 1962-1973
Effects on cultural field resources				
Low-class background	-.410**	-.191	-.070	-.119
Literary socialisation	.196**	.107	.021	.035
Wealthy socialisation	.021	.027	.038	-.053~
Communicative socialisation	.018	.039	.046	.061
Technical socialisation	-.070	.062~	-.031	-.007
Male	-.122	-.060	-.208	-.196
Effects on economic field resources				
Low-class background	-.186	-.151	.012	-.128
Literary socialisation	-.030	-.007	-.033	-.028
Wealthy socialisation	.008	.009	.015	.019
Communicative socialisation	.054	.087~	.009	.039
Technical socialisation	.006	-.011	-.011	-.001
Male	.234	.323~	.163	.216
Effects on communicative field resources				
Low-class background	-.394*	-.222	-.118	-.112
Literary socialisation	.109	.076	.042	.023
Wealthy socialisation	.018	.076	.052	-.014
Communicative socialisation	.055	.051	.017	.076
Technical socialisation	.003	.035	-.025	.017
Male	-.056*	-.032**	-.309	-.321
Effects on technical field resources				
Low-class background	-.031	-.083	-.001	.000
Literary socialisation	.074	.023	-.029	.041
Wealthy socialisation	.028	.025	.020	-.040
Communicative socialisation	.026	.104	.050	.008
Technical socialisation	-.020	.018	-.066	-.052
Male	.793	.718	.611	.629

~/*/**/***significant deviation from cohort 3 at $p \leq .10/.05/.01/.001$ (two-tailed tests)

Adjusted R^2 of model with cohort interactions = .089 (cultural), .105 (economic), .150 (communicative), .202 (technical resources).

* Net effects of other background characteristics of model IV, cohort in four categories.

Source: Family Survey Dutch Population 1998 (N=1,588)

III in Tables 1a and 1b. However, our measures for socialisation are not directly related to socialisation *into gender-roles* but reflect the specific type of socialisation that promotes the attainment of field resources.

4.3 Trends in effects of parental background on field-specific educational resources

To examine the developments in time with respect to the effects of parental characteristics on the field resources of children, we interacted birth cohort with lower class background and the four types of socialisation. Table 3 shows the effects of parental characteristics for the four birth cohorts separately, which are held constant for the other explanatory variables.

Our figures on the parental impact on cultural field resources show that the negative effect of a lower class background is mainly clear for people born in the 1930s and 1940s. Lower class children in the later birth cohorts are only slightly underrepresented in the fields where cultural resources are acquired. Literary socialisation is especially important for the respondents born between 1928 and 1941. For them, being socialised to become avid readers substantially increases the likelihood of their choosing cultural fields. For other birth cohorts, the effect is much smaller. This indicates that the cultural elite was more reproductive in fields of study in the early twentieth century than it was later on. The openness in cultural field resources has thus increased. However, children of the economic elite are resistant to acquiring cultural field resources, especially in the youngest birth cohort, as is clear from the negative effect of a wealthy socialisation, which may indicate a developing cleavage between the cultural and economic elites. The difference between men and women in the acquired cultural resources is stable across the birth cohorts. Apparently, the gender gap in cultural resources is stable: women always achieve more cultural resources in the course of their education than men.

With respect to economic field resources, there are no important cohort-differences in the impact of socialisation. The impact of gender on economic field resources is strongest among the 1942-1951 birth cohort, although men acquire more economic resources than women throughout the observed period.

As with cultural resources, the impact of social class on communicative resources is most prominent in the oldest birth cohort. Parental socialisation affects the acquisition of communicative resources in all the cohorts in a comparable way; if a child has been raised in a literary and communicative environment, this makes the child more apt to choose social fields of study. The impact of gender on communicative field resources increased; women attain more communicative resources than men across all the cohorts, but most prominently so in the later cohorts.

No significantly changing impact of family background on the acquisition of technical field resources was found. Despite the universal tendency for men

to acquire significantly more technical resources than women, this gender difference seems to have declined a little. However, differences in the effects of gender for various birth cohorts are not significant, indicating a stable sex segregation in technical fields of study.

5. Conclusion

In this paper, we examined the social and cultural reproduction of status positions by looking at the impact of parental resources on children's fields of study. Especially in a period when such a large segment of the population attends colleges and universities, the specific field of study serves as a new kind of social distinction. This suggests that now parents affect their children's fields of study more than ever; just stimulating children to attain a high educational level is no longer sufficient. We have developed scales for four types of resources that are distinctive with respect to fields of study, i.e. cultural, economic, communicative and technical resources. Individuals were ranked on these four resource scales corresponding to the field of their highest level of education. With this approach, we hold that educational fields should be unfolded in several dimensions, gaining insight into parental effects on fields of study that contrasts with the notion that only financial (Davies & Guppy 1997) or prestigious (Cheung 1997) aspects matter.

Our results indicate that with respect to fields of study, social positions are reproduced from one generation to the next. In the case of cultural and communicative field resources, the impact of parental field resources is inter-mediated by a related type of socialisation. Parents who are culturally and communicatively educated tend to have culturally and communicatively educated children because they socialise their children in a cultural and social way. This suggests that, at least in these branches, it is not primarily the parents' status position that serves as reference for children's behaviour, as rational choice theory predicts (Goldthorpe 1996), but the cultural aspects of the home environment, as Bourdieu (1984) has argued. Economic and technical field resources, which are more directly related to labour market success, are directly transmitted from father to child, indicating that children take their parents' socio-structural characteristics as a frame of reference. This confirms the strict cost-benefit perception of the market model of educational stratification. The children of fathers who are successful on the labour market as a result of their economic or technical field resources, want to have the same kind of successful career. Socialisation as such does not have much to do with this rational behaviour. Cultural and communicative field resources are more open to specific types of socialisation, because children primarily acquire them for intrinsic reasons. Familiarity with culture at home consequently enhances the cultural resources

students acquire, and the social integration of their parents enhances their preference for interactive aspects in fields of study.

Another hypothesis that has been corroborated is the low class hypothesis of Kelsall et al. (1972). As educational specialisation at higher levels increases the amount of field resources of any type, children from middle and high class backgrounds acquire more field resources than children from lower class origin. The only type of field resources this does not hold true for are technical field resources. Children from lower class families prefer to choose fields where they acquire extensive technical field resources because they are viewed as being related to future career opportunities and because these children have been familiarised with technical subjects by their blue collar fathers.

The impact of socialisation is hardly different as regards the acquisition of field resources of sons and daughters. There is no support for the notion that socialisation determines the gender segregation in fields of study. However, our measures for socialisation are not directly related to socialisation *into gender roles* but reflect the specific type of socialisation that promotes the attainment of field resources. Future research could further examine this issue by incorporating gender-specific socialisation into explanatory models for field choice. This seems relevant because the stability of gender segregation in fields of study is not yet fully understood.

Cohort differences in the impact of family background show that the socially unequal distribution of field resources did not decrease over the course of the twentieth century. Although cultural field resources have become more equally distributed among the Dutch population, other field resources were equally affected by background family across cohorts. This stable inequality in educational field resources indicates that boundaries between social groups persist. Whereas research on educational level inequality indicates an increasing openness in the Netherlands (De Graaf & Ganzeboom 1993), societal openness has not increased with respect to field resources.³ Since fields of study determine individual life chances on the labour market and life style behaviour, the stability in field of study inequality indicates the persistence of crucial boundaries in society. Especially in a highly educated society like the Netherlands, with around 80 percent of the population educated in a specialised field of study, this is an important topic. In the future, with an increased percentage of people with a specialised education, the impact of family background on field of study deserves more attention.

NOTES

1. Most items about parental socialisation appeared in the written part of the questionnaire, with comparable blocks of items grouped together. For example, for parental reading behaviour, the various genres were listed under one heading of answer categories. If the respondent responded to

only one of these four genres, it was assumed that the other genres were not read by the parent. This strategy was only followed for items that appeared in the same answer box (for all types of socialisation), and led to 89 more respondents for the analyses. The results would not have been any different if these 89 respondents had been excluded from the analyses.

2. Since no one with only a primary school diploma was involved in the scale construction, and we do want to use them in our analyses, we assigned minimum scale values of 1 to them.

3. De Graaf and Ganzeboom (1993) used a different data set than the one that was used in this paper. We examined whether educational achievement level has become less dependent on family background in the present data set, and indeed this was the case. Particularly the educational level of respondents born in the first two birth cohorts (1928-1951) was to a greater extent influenced by parents' social class and parents' educational level than of respondents in later cohorts.

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