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Effects of Arts Education in Primary and Secondary Education on Cultural Consumption and Socio- economic Careers in Later Life

INTRODUCTION: ISSUES AND RESEARCH QUESTIONS

Previous research on arts participation amply suggests that one social group excels in the arts, whether this is visual, musical or verbal art. Arts participation - at least when this is defined and restricted to be participation in high or 'legitimate' arts - is most often found among the higher educated. This result holds for all forms of art, it holds internationally and it is as true now as it was thirty or forty years ago. This is not to say that there are no variations in the relationship between educational status and arts consumption. Some important qualifications can be made. First, the overrepresentation of higher educated seems to be mostly determined by differences in secondary education: whether one has received a tertiary degree and whether this is a vocational or an academic one does not matter much for one's chances to become an arts consumer - the main dividing line is between vocational and (higher) academic tracks in secondary schools. Second, there are variations between art forms in their attractiveness to the higher educated. In general, the characteristic of art forms that determines this attractiveness most seems to be their cognitive complexity. Among the audiences of unconventional and otherwise complicated art forms, the overrepresentation of the higher educated is stronger than elsewhere. However, even art forms with relatively low cognitive complexity or art forms that mostly demand non-cognitive, e.g. musical, skills still have a large overrepresentation of higher educated in their audiences. Third, there are both cross-national and historical variations in the overrepresentation of the higher educated, but these sometimes run counter to common sense expectations. For example, Faasse & Ganzeboom (1986) and Knulst (1989) find increasing differences between higher and lower educated. Ultee et al. (1993) find wider differences between higher and lower educated in socialist countries than in market societies. Although these variations are substantial and important to understanding the mechanisms that generate the association between education and cultural participation, they must not distract us from the fundamental regularity of this association itself.

The association between education and arts has often been taken as a confirmation of one causal explanation, the instruction model of arts participation. This model assumes that the arts constitute complex information that the potential consumers can be trained to understand and enjoy. The instruction model basically explains the association between arts participation and education as a result from the higher level of arts instruction that goes on in higher forms of education. The divide between vocational secondary training and academic secondary training, as well as

the limited additional effects of tertiary education nicely corresponds to realistic assumption about the degree of arts training that goes on in these respective schools. Intrinsic to this interpretation is the image of the school as an effective school. Schools are able to instruct and train their students into whatever subject is chosen to be part of the curriculum. Conversely, life chances in modern societies are strongly determined by what one learns in school. In this model, schools may be able to repair or compensate deficiencies that children bring to school. In the case of arts participation, where parental background is known to be an important influence, this would mean that children who have not experienced cultural socialization at home, may become as active in the arts as their classmates.

Before accepting the instruction model as the one and only truth, it is necessary to point out that alternative interpretations of the association between education and arts interpretation are available and, indeed, plausible. In particular two alternatives are conceivable: the general ability model and the family background model. While these two models have fundamentally different assumptions about the conditions that need to be fulfilled to become an active arts consumer, they have in common a criticism of the instruction model, namely the idea that the association between education and arts consumption is mostly due to selection, i.e. the higher educated become arts consumers for reasons that are favourable to both educational advancement and arts consumption, but there is no causal effect from the latter on the former.

The general ability model still agrees with the instruction model in the assumption that arts consumption is mostly a process of understanding and enjoying complex information. However, the reason why higher educated are better equipped for such information processing is not the transfer of arts-specific knowledge and abilities, but the fact that schools train and select on general cognitive abilities and expertise. Whether educational advancement is mostly a matter of selection on genetically determined intelligence, or that the educational process produces differences in abilities and knowledge, may be a matter of further debate. However this may be, the argument remains that arts instruction is unimportant relative to more general sources of cognitive abilities. The general ability model can explain the association between education and arts consumption in a simpler way than the instruction model: in particular, one does not have to assume a close correlation between level of schooling and amount of arts instruction. Much to its credit, the general ability argument also can explain why audiences of some art forms (e.g. opera) still show a large overrepresentation of higher educated, whereas there are not instructed in schools at all. However, the crucial test between the instruction model and the general ability model is, of course, in the direct effect of instruction on later participation: to what extent does instruction lead to higher participation?

An interpretation even more critical of the instruction model is the family background model. In this interpretation, arts consumption is not (only) seen as the individual processing of complex information, but (also) as a socially determined choice of behaviour, in which one needs to be socialized. The best breeding ground

to become an active arts participant is the social network in general, and the parental family in particular. Although not always acknowledged in the research literature, it is striking that cultural socialization in the parental family - when investigated - is generally found to be equally conducive to arts participation as level of education. E.g., De Jager (1967) found that those who became first initiated to classical music in the parental family, remained more active participants in later life than those who visited concerts for the first time with school or friends. The importance of cultural socialization has been amply documented in subsequent research. However, we need an additional assumption to explain why the effect of family background may lead to a close association between culture consumption and level of education. This argument can be found in the cultural reproduction theory of social stratification of the French sociologist Pierre Bourdieu. (Bourdieu & Passeron 1970, 1979)

In this theory it is claimed that a cultured family does not only promote the arts participation of its offspring, but also its educational chances. According to cultural reproduction theory, being socialized in the arts helps one to survive educational selection: the culturally socialized become the better educated. According to this interpretation we also should find a cultivation effect of school and cultural socialization at home: those who have become cultural active at home are more sensitive to arts instruction than others. Conversely, arts education is most effective to those who have been prepared to it at home.

It should be clear that in this interpretation arts education in schools cannot help to remedy social inequality in access to culture. In fact, it works the other way around. The more important arts and culture become in the school curriculum, the more 'home advantage' (Lareau, 1989) the children of the higher educated and the culturally active will have - this is in a nutshell what 'cultural reproduction' means.

In sum, before hastily concluding that arts education is an effective way of promoting arts participation and can potentially be used to increase the widespread and democratic enjoyment of the arts, it is necessary to investigate the precise effects of arts education and explore further the causal connection between educational advancement and arts participation.

The analysis of effects of cultural experiences in early life need not be restricted to effects on arts training received in school. In particular the family background model makes much further claims about such effects and these can and must be investigated as well. Bourdieu's cultural reproduction theory sees cultural socialization in the parental family as one of the most effective mechanisms of social closure in a modern society, where income and price mechanisms have lost much of their effect. Unlike financial barriers, the command of culture is not easily marred by government interventions. Bourdieu sees effects of cultural socialization in the parental family much beyond educational selection. In particular, Bourdieu claims that having a cultured background and the command of cultural codes in general, promotes one's chances to become a member of a cultural elite. Therefore, one would expect cultural socialization and its effective confirmation in education

to further one's chances to higher status in society, in particular with respect to occupations and social network. Testable hypotheses, for which Bourdieu claims empirical confirmation, are that the command of cultural codes leads one into high status occupations in cultural fields (say, in teaching, science or government service), as well as to higher educated friends and - finally - spouse.

Ironically, similar claims with respect to effects of arts education are made from a quite different angle and with quite different evaluations. In educational policy debates one finds the claim that the choice of arts education is detrimental to a person's life chances, in particular in further education and the labour market. Choosing arts as part of one's curriculum in secondary school would lead students away from fields with higher intellectual challenge and/or practical value. It would reduce the amount of further options that are available in tertiary education and label the student in labour market selection process. This might very well lead to a strong effect of arts education on the choice of further education and potential occupation - however, according to this view these are not well described as 'cultural elite', but rather as 'second rate'. While this constitutes a totally different evaluation of the effects of arts training, the empirical expectations alluded to are much the same as in Bourdieu's empirical reproduction theory: arts training leads to a limited set of continuations in higher education and in the labour market, as well as to a specific selection of one's social network.

In this paper we review empirical evidence on the validity of all these claims about the effects of arts education using data from two projects, one already concluded (Ranshuysen & Ganzeboom, 1993), and another one still in progress. (Nagel et al. 1995)

RESEARCH DESIGN AND DATA

Investigating the effects of arts education on later cultural participation and socio-economic careers is not trivial. The theoretically most attractive way of collecting relevant data would be to collect student cohort data. This would involve questioning (and observing) students, their parents and schools very early in life, and monitor their developments throughout their life-course. While this research design is conceptually appealing, it must be clear that it would take a while before any conclusions about effects could be drawn: say, twenty years. And to its disadvantage, such conclusions would be restricted to the cohort investigated and not inform about historical changes. While there are such principal disadvantages to the student cohort design, there are even more severe practical problems with these designs. The costs are high, and the risk of disruptions, both at the individual (student, parents, school) and project level are severe.

The only practical alternative to a student cohort research design is a retrospective design, in which one compares information about current situation with memories about the situation in adolescence. When one collects data on respondents of different ages, the retrospective design has a crucial advantage over the cohort design: the retrospective design informs one about effects at different points in

historical time and therefore one is able to assess historical chances. However, there are also problems with the retrospective design. To which extent can one trust retrospective data to reflect accurately the situation in the past? In particular, how large is the influence of known response biases, such as the tendency that respondents report closer consistency between current and past behaviour than is actually warranted? Although they are the only viable alternative to collecting relevant evidence, it remains clear that retrospective data need to be carefully interpreted and every effort needs to be made to control response tendencies.

The first project we report on assessed the effects of two arts education programs that took place in the city of Amsterdam. Both programs were centrally administered by the city government to primary schools students throughout the city. Because schools could choose to stay outside the programs (and some did), all students within a given school were affected by the program or not, which is an important feature of the research design: it makes that we do not exclusively have to rely on subjective information on arts education but in principle have a quasi-experiment at our hands, with an objective measure of arts education.

The two Amsterdam programs are called Museum Lessons ('Kunstkijkuren') and Music Lessons ('Muziekluisterlessen'). The two programs differ somewhat in their approach, as well as in their objectives. In brief, the Museum Lessons consist of ten one-hour visits of primary students to some of Amsterdam's most renowned visual art museums. The lessons are taught by a special teacher, often an artist by vocation. The instruction method used has been described as 'socratic': there is in fact little instruction about the art objects, but instead questions are asked to the students, while seated in front of a painting or sculpture. The ten Concert Lessons are also taught by a special teacher, instrument in hand, but most of the time in school. The students visit only one (mass) concert, at the end of their series of ten lessons.

These Amsterdam art education programs are unique in the Netherlands in the continuity of their existence for almost forty years. While similar programs sometimes have existed elsewhere, we have found no other example of similar continuity, both in existence and approach. This is the reason why the Amsterdam program was chosen to test the effects of arts instruction programs.

It is to be noted that these Amsterdam programs are administered to students of 10-12 years old in primary schools. This has the important methodological advantage that selection effects can play no, or only a minor role in this case, since primary education in the Netherlands is truly comprehensive and there are no clear quality differences between schools. While in the case of arts education in secondary schools (see below) one needs to control the fact that more intelligent and abler students go to higher level schools, there can be no such selectivity bias in primary schools. We still introduce control variables to counter selectivity interpretations. At the same time, one needs to be cautious about age sensitivity effects: when one finds only minor or no effects of arts education at primary school age, this maybe due to the fact that students in this age group are not very

sensitive to arts instruction, and not speak against arts instruction per se.

The second project we report on is still in progress and deals with the effect of arts education in secondary schools, and in particular those forms of arts education that were an optional part of the graduation exam. Such formal examinations have been in existence since 1975. This research project investigates the cultural and socio-economic careers of students who took the examinations between 1975 and 1985 and are now between 25 and 35 years of age, and compares these to the careers of their school/class mates who did not take these arts examinations. In total, we have collected data of over 1000 students who originated in 31 secondary schools and who are distributed almost equally among the examination and the control group. Again, like in the Amsterdam project, we use the terminology of experimental design to evaluate the effects of arts education. However, there is a crucial difference with the Amsterdam project, since taking the arts education exams is an option and students have selected themselves into the 'experimental' and 'control group'. We can therefore never exclude the possibility of selectivity bias, i.e. that differences between experimental and control groups were already in existence before the choices were made, and cannot be attributed to the effect of arts instruction.

While this remains a weakness of the design, we have good ways to counter it. It is well documented that the main determinant of arts participation in later life other than formal education is arts participation in the parental family and it is likely that children from cultured families are more likely to choose the arts examination program. By measuring arts participation in the parental family in a most accurate way, we can at least control the main potential source of selectivity bias. In both projects, we can use two methods to identify the degree of cultural socialization in the parental family. The first measure is the degree of cultural participation of parents of the respondent, and the second measure is the degree of cultural participation of a sibling (brother or sister) of the primary respondent. The secondary school project surpasses the Amsterdam project by using much better measures of these control variables, viz. by collecting independent information about the family background among the parents and siblings themselves. While in most research (such as the Amsterdam project) such information is collected indirectly, namely from the primary respondent, and one runs the clear risk to mix up selectivity bias with response tendencies, in the secondary school project we have been able to collect the information independently. By interviewing both a parent and sibling of the original respondent, we have a double strategy of controlling the influence of family background. Not only have the parents told us about their own cultural participation, but also can we compare primary respondent and his/her sibling. Their resemblance will permit us to estimate the total influence of the parental family, and by comparing the resemblance between siblings with the resemblance between school/class mates, we will be able to determine the relative effectiveness of schools and the family for cultural outcomes.

Another way in which the design of secondary school projects surpasses the

Amsterdam project is that in this case we do have individual information on participation in the arts education program, namely from school records. In the Amsterdam case, such information was not available at the school level, and turned out to be very unreliable, and we used the respondents recollection of participation in the program as the treatment variable. This may of course be inaccurate. In the secondary school project the records about taking the arts education examinations is accurate, since it derives from semi-legal records.

There are some drawbacks to the design of the secondary school project as well. First, while arts education examination can be taken at most levels of secondary schooling, we have had a hard time to find examples at the lowest level - lower vocational schools. Our sole representatives are textile arts examinations in lower vocational schools. This means that unlike our Amsterdam research the secondary school project does not cover the range of the population.

RESULTS

The results from the Amsterdam project are reported (in Dutch language) extensively in Ranshuysen & Ganzeboom (1993) as well as in Ranshuysen (1993). Here we will only summarize the results.

First, somewhat contrary to our surprise, we found a statistically significant effect of both arts education programs on later cultural participation. Our sceptical expectations were mainly based on the consideration that a long time (8-28 years) had passed since the respondents had received the treatment in the final year of primary school, at age 11 or 12. Although statistically significant, the effects we found were small. We used two expressions for the size of the effects. The standardized partial regression coefficient for the treatment varied around .10.¹ A second expression for the size of the effect was the estimated additional frequency of participation in museum going, respectively concert visits. These were found to be around 20%. While these effects may be small, one must realize that the treatment variable covers only a limited experience in a respondent's lifetime experiences with the arts. It is only a small series of (ten) lessons that has been shown to have an effect on cultural participation in later life, and it is therefore no surprise that the effects are also small. However, the results are theoretically important because they show that instruction matters, and they give firm ground for the expectation that more elaborate instruction would bring larger effects.

The estimated effects are net of possibly confounding influences, such as parental background, parental cultural participation, ethnicity and current age of the respondent. Since this was a field experiment with a true treatment and control group, these control variables should not matter much to the outcomes, and this was indeed the case. The treatment group was not very different from the control group in terms of age, ethnicity and parental background. This shows that participation in the arts education program was not conditioned by prior experience. As a matter of fact, a slight tendency was found for the control group to have come from higher status and more cultured background than the treatment

group. This is probably caused by the fact that some schools who did not participate in the program were schools who had an elaborate arts education program of their own and considered the centrally administered program superfluous.

The second result from the Amsterdam project is about the effects of the control variables. While the control variables and the treatment turned out to be not associated with one another, it is still interesting to compare their relative effects, as well as their combined effects. The important finding about the relative effects of social background and arts education is that the effects of social background are about three times larger than that of arts education. The most direct indicator of social background is the degree of cultural participation of the parents, which is conceptually a parallel of the arts education programs in schools. We were also able to compare the relative importance of formal education and parental family by comparing cultural participation of respondent and his/her sibling. This sibling analysis again showed that in this sample parental background is more important than formal schooling, and that general ability effects of schooling are also more important than arts instruction effects. In sum, the most important determinant of someone's cultural participation as an adult is early cultural socialization in the parental family, the second most important the general training and selection received in education, and the least important one the arts instruction received in education. While the Amsterdam research shows the effectiveness of arts education in principle, it also mitigates our expectations of arts education as the principal determinant of arts participation.

A third result from the Amsterdam program was on the combined effect of arts education and cultural socialization at home. To what extent do these condition each other's effect? There are two possibilities. One would be - and this is much in line with Bourdieu's cultural reproduction argument - that children from a cultured background are more sensitive to arts instruction in schools. This is what we labelled the cultivation model. The other extreme would be that schools are able to offer children from less cultured background opportunities that others have already had at home. This is what we call the compensation model. The evidence was slightly in favour of the compensation model. Students from lower social and cultural backgrounds were more likely to react favourably to arts education than students from higher social and cultural backgrounds. Or to put it differently, one can become an arts consumer either in school or at home, it does not necessarily take both.

A somewhat puzzling result of the Amsterdam research was that the effects of the arts education program were not found to be discipline specific. The effects of the museum lessons and of the concert lessons were of about the same size, although the didactic designs of the program were quite different and we had expected that the museum lessons would prove to be the most effective ones. This expectation was based on the consideration that the museum program did take the children more frequently out of their school environment, as well as the consideration that

schools are generally more effective in teaching cognitive competencies than non-cognitive competencies, such as music appreciation skills. Neither consideration turned out to be true. An even more disturbing result from the Amsterdam research was that the Museum Lessons appeared to have an effect on concert going in later life, and that the Concert Lessons appeared to have an effect on museum visits in later life. While these two are hard to separate (many respondents had been in both programs) and there is a possible explanation that the effects of the programs generalize into different disciplines, it may also be the case that we are lured by response biases.

Finally, we also explored the effects of arts education on other aspects of later life, in particular final educational attainment, occupational attainment and choice of a spouse. In neither case, there was an appreciable effect of the arts education program in later life. Again, it is important to compare this result with the effect of the control variables, in particular the cultural participation of the parents. The Amsterdam research, like many other investigations, showed that cultural background is indeed an important determinant of success in later life. In particular, people from cultured families do better in secondary and higher education (with parents' education controlled) and marry higher educated partners (with their own education controlled). There seem to be no effects of cultural background on occupational attainment.

The analysis of the secondary school sample is still under way and will be reported by Nagel et al. (1995). Given the results of the Amsterdam research project, it will be particularly important to see whether the effects of arts education, in secondary schools, is larger than found for the primary schools programs. Since we have better measures for the contents of these programs, as well as independent measurement of both the treatment and the control variables, the design of this project will be more conclusive than for the Amsterdam research. Our expectations are that the effects of the arts examinations on later cultural participation will be found to be larger, since the programs involved are much more elaborate treatments and for this sample less time has elapsed between the treatment and the criterion measurement. We also expect that the effect of arts education in secondary schools on the socio-economic careers will be much larger than for the primary schools, in which they were almost non-existent. This is so, because entering the arts education program and taking the examination becomes a formal degree, that is used for qualification in further education and in the labour market.

CONCLUSIONS

There is a close association between education, arts training and cultural participation in later life. Arts consumers are often higher educated and have more often received arts training in school than non-arts consumers. However, it would be naive to interpret these correlations as a simple causal chain, implying that arts consumers are found to be highly educated, because schools trigger people to become culture consumers by teaching them the necessary skills. It may be that more schooling produces higher culture consumption, whether it contains much

Table 1: Design of the two projects; (expected) main results.

	Amsterdam primary schools program	Arts examinations in secondary schools
Sample	1061 inhabitants of Amsterdam, interviewed in 1992, then 25-40 years of age.	1035 former secondary school students, sampled from the examination records of 31 secondary schools at four different levels, interviewed in 1994, then 25-38 years of age.
Arts education treatment	'Museum Lessons' and 'Concert Lessons' administered at age 11-12.	Graduation examinations program in Visual Arts (drawing, textile, handiwork) and Music, taken at age 15-18.
	Field experiment: compulsory participants in treatment versus control group from schools that did not participate	Quasi-experiment: voluntary participation in treatment versus control groups (non-participants in same classes/schools)
Method of data collection	Telephone survey	Telephone survey with former students and their parents
Response	50%	65%
Results	<ul style="list-style-type: none"> *Small, but significant effects of arts education on later culture consumption. *Main determinants of later culture consumption: (a) cultural socialization in parental family, (b) level of schooling. *Little of no effects of arts education on socio-economic career. *Arts education somewhat more effective for children from lower status background. 	<p>EXPECTED RESULTS:</p> <ul style="list-style-type: none"> *Larger effects of arts education on later culture consumption. *Larger effects of arts education on later socio-economic career.

arts education or none. And it may be so that culture consumers are higher educated, but this is only so because the cultural resources in the parental family influence both education and cultural participation.

In the Amsterdam project, we have been able to sort out these different interpretations by using a field-experimental research design in which there is arts instruction independent of amount of schooling received and family background. The introduction of control variables served to document that the field experiment was indeed successful and the treatment effect can be attributed to the Amsterdam arts education programs. The important finding is that these arts education programs indeed had the effects hoped for by their initiators. Students who had participated in the Museum Lessons or the Concert Lessons in primary schools were more active cultural participants in later life than those who were in schools who had not participated. While the effect was found to be small, it was not only statistically significant but also theoretically important, since it rules out that selection effects are completely responsible for the association found between level of education, arts education, and cultural participation. However, the large effect of the control variables used in the design, in particular of the cultural participation of

the parents, should remind us that the parental family remains to be the most important agent in someone's arts education.

Notes

1 Technically, this means that one standard deviation of the treatment variable (having been in the programme or not) was associated with one-tenth of a standard deviation of the criterion variable (a multiple indicator index of cultural participation) controlling the potentially confounding influence of parental characteristics.

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