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Chapter 24

HUMAN CAPITAL AND ARTISTS' LABOUR MARKETS

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Contents

Abstract

It is argued that human capital theory applies only weakly to artists' decisions about investment in schooling and training and about occupational choice. However, the same can be said about the sorting model. What is lacking in cultural economics is an understanding of talent and creativity, what economic factors motivate artists and how creativity can be encouraged as part of government cultural policy. Bringing social and cultural capital into the equation do not seem to add much in the way of understanding artists' labour markets. A novel argument is made

that the reproducibility of works of art in combination with copyright law alters the established view that human capital cannot be separated from labour, in this case that of the artist.

Keywords
human capital, labour markets, artists' training

JEL Classifications: Z1, J24, I21, K11,H4

> *Lady Bracknell*. (to her daughter's suitor) ….....Do you smoke?
> *Jack*. Well, yes, I must admit I smoke.
> *Lady Bracknell*. I am glad to hear it. A man should always have an occupation of some kind. There are far too many idle men in London as it is. How old are you?
> *Jack*. Twenty-nine.
> *Lady Bracknell*. A very good age to be married at. I have always been of the opinion that a man who desires to get married should know either everything or nothing. Which do you know?
> *Jack*. I know nothing, Lady Bracknell.
> *Lady Bracknell*. I am pleased to hear it. I do not approve of anything that tampers with natural ignorance. Ignorance is like a delicate exotic fruit; touch it and the bloom is gone. The whole theory of modern education is radically unsound. Fortunately in England, at any rate, education produces no effect whatsoever. If it did, it would prove a serious danger to the upper classes, and probably lead to acts of violence in Grosvenor Square. What is your income?
> *Jack*. Between seven and eight thousand a year.

Oscar Wilde *The Importance of Being Earnest* (Act I). First published in 1899.

1. Introduction

The role of human capital in labour economics has a long history, going back to Adam Smith. Smith recognised the effect of both training and talent in determining wages, the latter in his famous comment on the 'exorbitant' rewards of opera singers and dancers.[1] The influence of innate ability and knowledge acquisition on earnings has been much discussed in human capital theory and this discussion is particularly relevant to artists. The study of artists' labour markets is important in cultural economics because we need to understand what factors affect the supply of work by creative artists and performers since cultural policy, whatever its explicit aims, is ultimately designed to encourage creativity.

In this chapter, two basic questions are addressed: what contribution does human capital theory make to understanding creativity in the arts and culture and what contribution does cultural economics make to our understanding of human capital? Much of the analysis of human capital over the last 30 years has been about the econometric problems of identifying the specific contribution to earnings of innate ability rather than of ability acquired through 'schooling'. Because the role of innate ability or talent is far greater in the arts than it is in non-arts occupations, its influence is an area in which cultural economics can make a contribution to human capital theory. It also seems likely that on-the-job training and experience are more important in the arts than in other occupations. Another distinguishing feature of artists' supply behaviour is their concern with utility and reputation, which considerably modifies their desire for financial reward. Furthermore, the arts and cultural industries are areas in which there is

dependence on copyright law for protecting artists' earnings, enabling them to obtain future as well as present income. There is, therefore, reason to believe that artists' labour markets differ from those of other workers and this raises the question whether human capital theory applies in them. However, while there has been a great deal of empirical work on the role of human capital in 'ordinary' labour markets, there have been relatively few econometric studies of artists' labour markets.

This chapter is organised as follows: an introduction to human capital theory precedes a brief summary of issues in the measurement of human capital using earnings functions, including those relating to artists. Then the role of talent and creativity in artists' labour markets is discussed, with particular reference to the superstar phenomenon. That is followed by a section on artists' training and occupational choice, after which we consider the analogy between human capital, social capital and cultural capital. We then turn to the relation in artists' labour markets between human capital, the ability to reproduce artists' work and copyright law, showing how that alters the 'inalienability' problem in human capital.

2. The theory of human capital

2.1. The basic theory

Sherwin Rosen has defined human capital as "...the stock of skills and productive knowledge embodied in people. The yield or return on human capital investment lies in enhancing a person's skills and earning power, and in increasing the efficiency of economic decision-making both within and without the market economy" (Rosen 1987, p. 682). This definition captures two essential features of the theory: that human capital cannot be separated from the person, and that human capital embodied in an individual may be increased by investment. What it does not recognise, however, is the ambiguity of the concept of human capital as a combination of inherited characteristics, tacit knowledge, innate ability and acquired skills; each plays some role in the individual's productivity and earning power but how much influence is exerted by one or the other has proved difficult to pin down.

A thumbnail sketch of the theory is as follows: though the concept of human capital had been recognised by Adam Smith and Alfred Marshall, it was only in the 1960s that Theodore Schultz (1961) set the stage for the present day interest in human capital theory. The fundamental conceptual framework of analysis for virtually all subsequent work in this area was developed by Gary Becker in his path-breaking book *Human Capital* (1964). In it, he introduced the distinction between specific and general labour training, arguing that schooling (formal education) was in fact a leading example of human capital formation by general training. Jacob Mincer (1958) then specified the now standard human capital earnings function that has given rise to a huge literature on the measurement of lifetime income and wealth (Willis, 1986).

Adam Smith had understood the essence of the notion of human capital investment: the formation of human capital through costly education, the necessity for higher earnings to compensate those who had made the investment in human capital, and the accrual of these earnings over a lifetime.

> A man educated at the expense of much labour and time to any of those employments which require extraordinary dexterity and skill, may be compared to [an expensive machine]. The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace to him the whole expence of his education, with at least the ordinary profits of an equally valuable capital. It must do this too in a reasonable time, regard being had to the very uncertain duration of human life, in the same manner as to the more certain duration of the machine.
>
> The difference between the wages of skilled labour and those of common labour, is founded upon this principle (Smith 1976, pp. 118-9).

Marshall also pursued the analogy between physical and human capital and between the wage rate and the rental rate of capital. He emphasised the difference between physical and human capital on the grounds that there is no market in human capital but rather a market in the hire of labour embodying the investment. This is what Rosen (1987, p. 682) refers to as "differences in the nature of property rights between them". Furthermore, Marshall made the case for subsidies to education based on the implications of social inequality of access to the capital market for the finance of education (Blaug 1970, p. 3-6).

Blaug (1970) raised the question whether the concept of human capital is perhaps no more than a metaphor, and moreover whether all education indeed has an investment motive or whether it is not to some extent a consumption good. Education and learning may yield utility directly to the individual rather than a deferred utility of potential higher earnings. Furthermore, occupational choice may not be determined solely by financial reward because people may choose an occupation for non-pecuniary motives such as a preferred lifestyle. Occupations that require a higher level of human capital investment and so pay more are also ones, contrary to Adam Smith, that may be more attractive on non-monetary grounds. The identification of consumption elements, utility and the pursuit of non-monetary rewards might therefore be difficult to disentangle. These observations are particularly relevant to artists' training and occupational choices. We return to a discussion of the usefulness of the capital metaphor in Section 6 below.

For Becker, however, the analogy between physical and human capital is central. According to Becker, individuals invest in human capital formation up to the point at which the discounted costs of formal education and on-the-job training equal the discounted future earnings over the individual's lifetime. The rate of return that equates these two streams must in equilibrium equal the rate of interest, that is, the cost of borrowing the outlay on the investment. The private rate of return, which accrues to the individual, is calculated from the out-of-pocket (direct) costs of schooling and the indirect costs of earnings forgone during the investment period. The social rate of return takes into account the return to society via income taxes and the total cost of providing schooling. Empirical estimates of the two rates of return produce the result that the private rate typically exceeds the social rate, if only because the social cost of schooling exceeds its private cost.

Like Marshall, Becker recognised that all families do not have equal access to financial resources and that affects the human capital investment decision. Family background may exert other influences on the costs and returns to human capital investment; inherited characteristics and

early advantages such as health, greater investment during childhood, above average ability and innate talent all mean that some individuals learn more easily than others and therefore achieve higher productivity from a given period of study or, *pari passu*, need to spend less to achieve the same learning outcome. These family background and interpersonal differences give rise to the so-called 'ability bias' in measuring the rate of return to investment in human capital. We shall see later that this is an important topic in artists' labour markets.

Becker also considered the question of who pays for post-compulsory education and training, the individual or the employer. The employer has no incentive to pay for general training that can be transferred between firms but does have the incentive to pay for firm-specific training.[2] Firms may well offer general training to employees but then 'charge' them for it by paying them lower wages (as in an apprenticeship training).

2.2. Sorting models

Human capital theory in its Chicago School version (Schultz, Becker, Mincer and Rosen) is not accepted by everyone in the economics of education or labour economics. The most fundamental criticism comes from those who support an alternative explanation of the observed positive relationship between investment in schooling and higher earnings – the screening hypothesis. Screening, which is always linked to signalling (the education system screens and students signal), is a form of sorting; indeed Weiss (1995) recommends using the generic term 'sorting' to include both aspects. According to sorting models, employers use educational choice to draw inferences about unobserved attributes that are correlated with schooling. Employers use formal qualifications (a university degree, for example) as an information signal about worker quality, but information is asymmetric – workers know their own productivity but employers cannot tell which workers are the most productive. Workers signal their superior productivity to employers by acquiring paper qualifications which high ability students acquire more easily. This 'self-selection bias' is exacerbated by the finding that many highly educated students come from higher socio-economic family backgrounds. The extreme version of the sorting model combines screening and signalling to conclude that higher earnings do not reflect higher marginal productivity at all, but only society's institutional commitment to 'credentialism'. Ability bias and signalling are difficult to separate and in general it has proved impossible to identify them empirically, at least so as to persuade the sceptic. All agree that more time spent in schooling yields higher earnings but sorting models dispute precisely what it is that leads to greater productivity.

Becker has argued that a refutation of sorting models lies in the fact that the education system is an inordinately expensive screening device; such inefficiency is unlikely to develop spontaneously in a competitive economy and is even more unlikely to be sustainable over long periods of time. This argument carries greater force in the USA where students pay for further and higher education, but in many European countries both are either free or available at very low fees. So the direct cost of post-compulsory education in Europe is small, leaving only the cost of forgone earnings to be borne by students and their parents. Indeed, many European countries even offer students grants and rewards for completing a course. In the arts, we see courses being over-subscribed as hopeful students who do not have to pay the full cost of training crowd into art, music and acting colleges (Towse, 1996). We also observe that employers in the arts place little

reliance on certification based on formal schooling and often use their own screening devices, a refutation of Becker (Towse, 1993); we return below to these and other differences between artists' and other labour markets.

Before leaving the general theory of human capital, it is worthwhile anticipating a later discussion of the way copyright law (in combination with 'reproducibility' by means of copying technologies) alters property rights in human capital in the cultural sector. Many writers (for example, Blaug, 1970) have dwelt on the absence of a market for human capital separated from the labour of the individual and have claimed that only a slave economy would permit direct purchase of human capital analogous to the purchase of physical capital. However, human capital embodied in works protected by intellectual property rights can be 'alienated' by the assignment or transfer of the right to use them. For example, take the case of a sound recording: copyright law provides a number of rights for composers and performers, who use their skill and labour to create works that are recorded in a CD; but once these rights have been transferred to the record company, they become its assets, which it can exploit or sell as it sees fit. Copyright is therefore intimately tied up with the appropriation of artists' human capital. Nor is this only a feature of artists' labour markets; the growth of the 'Information Society' or the 'Knowledge Economy' and the spread of intellectual property law into ever more sectors of the economy have created similar conditions in other labour markets.

3. Earnings functions

3.1. Estimation

Earnings data are the single most important source of information about human capital as they represent both the returns to investment and the cost of the time taken to make the investment. Lifetime earnings are typically represented in age-earnings profiles. Earning starts when compulsory education ceases – if the legal school leaving age is, say, 16 years of age, any schooling beyond 16 incurs the opportunity cost of the earnings of 16+ year olds. Thus the age earning profile begins at age 16 and continues to retirement age. Normal age earnings profiles display a common pattern: from the age of entry into the labour force they rise, then flatten out at around mid-career and fall towards retirement age.

Investment in human capital does not cease with the start of work, however, since on-the-job training now begins. On-the-job training is a loose concept that includes experience or learning-by-doing, which increases with age. Mincer (1958) recognised that workers could also choose at each point to invest in formal on-the-job- training as a substitute for years of schooling and that that would eventually be compensated by higher earnings**.** Workers may rationally choose different jobs that enable them to gain experience, accepting lower earnings while they are trained on the job. Mincer analysed these different choices by individuals as yielding a series of age-earnings profiles whose shape is determined by the different combination of direct and indirect costs of education and on-the-job training. Because they represent different combinations of earnings forgone and lifetime earnings, the age earnings profiles must cross. Mincer called this the 'over-taking point', which he argued would depend on the reciprocal of the internal rate of return, the discount rate that equates the stream of lifetime earnings with the cost of the investment. This approach enables the researcher to take into account the effect of family

background effects such as financial constraints, but it does not solve the problems of ability bias or self-selection bias.

The Mincer earnings function has become the standard model for statistical measurement of the supply of educated labour and for estimating the internal rate of return to education:

$$\log Y = \log Y_0 + rS + b_1X + b_2X^2 + u \quad (1)$$

where Y is income, S is length of schooling, X is length of time in the workforce as a proxy for years of work experience and u is the error term; the constant term is the log of the equivalent annuitized income of initial human capital value (innate and family background effects), r is the rate of return to schooling, b_1 and b_2 capture the effects of experience (Rosen 1992, p. 162). Several econometric specifications of the earnings function have been tried out and innumerable empirical studies have been made; a survey of the early literature is to be found in Willis (1986).

The ideal data for measuring the effect of investment in human capital would consist of longitudinal information on individuals' lifetime earnings combined with individual tuition expenses. Such data are rarely available and in practice aggregate cross section or panel data are used; however, they abstract from individual decision-making and give rise to bias in estimation. Simplifying assumptions are therefore needed to enable researchers to use the data available. Briefly these are: that the only cost of education is earnings forgone; that individuals enter the labour force immediately on completing their studies; and that the individual's working life is independent of her years of education.

The problem of estimating the ability bias is aggravated by the use of aggregate cross-section data; individual data would avoid much of this problem by providing information on family background and possibly even on early IQ and other measures of innate ability. In the attempt to separate out the influence of innate ability and human capital investment on earnings differentials, studies of identical and non-identical twins have been used. Rosen (1987) reports that such studies have found that around one-third of the difference in earnings was due to differences in human capital investment, one-third was due to 'person effects' (unmeasured ability, health and other such factors) and one-third was due to random events, luck and suchlike. These findings are particularly relevant to artists, for whom variations in talent and luck may well be higher than for other professionals. This is discussed in more detail below.

3.2. Artists' earnings functions

We now turn to empirical studies that have been done of earnings functions in arts occupations. These studies have tested the human capital model outlined above, treating artists as workers like any others making rational choices about investment in education and on-the-job-training and occupation. There are considerable difficulties concerning the definition of the artist population and of obtaining data.[3] Suffice it to say here that in most countries in which these studies have been attempted, there are severe problems in obtaining artists' earnings data. Census data either cannot be disaggregated to appropriate artistic occupational levels or are subject to severe bias due to multiple job-holding. In the USA, Filer (1986) used Census data to estimate earnings functions for a range of artistic occupations but the validity of his results have been widely disputed by cultural economists because he used aggregate income data (Towse 2001a, Ch.

3). Consequently, cross-section survey data have been used in preference to Census data but response rates may be low and sample sizes may be relatively small and possibly unrepresentative. Interestingly, however, Filer found only a very weak effect of human capital variables on artists' earnings. In a later study in which he analysed earnings functions separately for different arts occupations, still using Census data, he found that longer schooling even had a negative effect in the case of performing artists (Filer, 1990). Wassall and Alper (1985) did one of the first earnings-function studies of artists using data from their survey of 3,000 artists in New England that allowed them to separate arts from non-arts income. They found that education was not positively correlated with income from arts work though it was from non-arts work, a finding that has been since replicated in other studies.

Large-scale national surveys of artists' earnings have been carried out in Australia and enabled two authors Withers (1985) and Throsby (1992; 1994; 1996) to estimate earnings functions.[4] Withers varied the standard Mincer specification by making a distinction between formal education and other qualifications (trade and technical certificates), using the imputed hourly wage rate and reported hours of work to measure earnings. He noted that the standard assumption of continuous employment from entry into the labour market to retirement age overstates work experience for females, a higher proportion of whom are in the arts compared to the non-arts workforce. This, however, would apply to all artists since many artists work irregularly and have frequent periods of unemployment during job searches. Withers' results showed that, compared to all Australian workers, artists earned 40 percent less, which he interpreted as the 'subsidy of artists to the arts'. The 40 percent penalty can also be viewed as a compensating differential, the 'psychic income' for the net advantages of a preferred occupation – the interpretation depends on whether or not you assume that changing occupations is frictionless. On the latter point, Filer (1987) found that the penalty for the choice of artistic occupation in the USA was not high and that 'failed' artists were able to move into other occupations without a high earnings penalty – a striking testimony to the power of general training. Withers also found that human capital variables had only a very weak effect on earnings and concluded that innate characteristics (talent and motivation) and luck, though not identified, must play a considerable role in determining earnings in the arts.

Using the same data set, Throsby (1994) estimated an important variation on the standard form of the earnings function. The Australian survey (which he had directed) collected data on earnings and hours of work in arts and non-arts work. This was done because it was known from qualitative research that artists typically divide their work time between their chosen artistic occupation (arts work) and jobs outside the arts (non-arts work), mainly because they are unable to earn a living wage from the former. This approach was a means of overcoming the bias introduced in census data, which defines artists on the basis of their occupation in census week and attributes earnings from all sources to their arts work, even if a substantial part is due to non-arts work; this was a criticism that had been made of Filer's 1986 study (which he had defended as a 'market test' of who is and who is not an artist). Throsby therefore was able to estimate earnings functions for arts and non-arts work and he was able to separate out the private rate of return to education, training and experience in both arts work and in non-arts work. That had the advantage that he was able to compare rates of return for the same sample, unlike Withers (and others) who had made comparisons between aggregations of different sets of individuals. Throsby found that human capital investment *was* an explanatory factor of income differentials in

both sectors, though the human capital model performed less well for arts work than for non-arts work, again due to the unspecified effect of talent and other innate ability factors. It should be noted, however, that the studies by both Withers and Throsby had low R^2 values, indicating that much about earnings differentials was left unexplained.

Subsequently, Throsby (1996) estimated another earnings function for Australian artists using data from a later survey and testing two different specifications, one a linear model using two-stage least squares and a second using the Mincerean earnings function (equation 1 above), again breaking down earnings and hours worked, this time identifying arts, arts-related (such as art teaching) and non-arts work. His hypothesis was that income from arts and arts-related work are influenced by the level of professional arts training, whereas non-arts income is more likely to be influenced by the level of general education, and that time spent on-the-job as an artist is the appropriate explanatory variable for arts and arts related work, with age (as a proxy for experience) being more relevant to non-arts earnings. Dummy variables for level of training, education and gender were used. The models were tested with a further division between creative artists (writers, composers, choreographers and so on) and performers (actors, musicians, dancers and the rest). Interestingly, this elaboration of his earlier study did not yield very different results. The linear model performed better than the standard Mincer model and the hypotheses of the standard model were confirmed. Even so, R-squareds for arts income were low, indicating that factors other than human capital were at work. The experience of testing human capital models in the arts has led Throsby to develop a work-preference model of artist behaviour (Throsby 1994) as an alternative to the human capital investment model. Cowen and Tabarrok (2000) also develop a utility-based model. It remains to be seen how these models stand up to empirical testing.

3.3. Methodological aspects

By way of conclusion to this section on estimating earnings functions, it is worth considering the methodological aspects of human capital theory (methodology being the logic of different methods, not merely a comparison of methods of econometric estimation). Blaug (1976) subjected the theory of human capital to methodological analysis based on Lakatos' concept of a scientific research programme and asked what empirical tests would refute it? Is it 'a theory' or a set of theories – in Lakatosian terms, is there a 'hard core' of theory or just a 'protective belt' of *ad hoc* empirical generalisations? Though sorting models appear to provide a rival theory, Blaug believed they would eventually become a complement to the human capital hypothesis; moreover, as noted earlier, no discriminating test has been found that could refute one hypothesis and confirm the other, despite a huge battery of empirical work.[5] In the absence of a rival theory, Blaug concluded that the human capital research programme had to be evaluated on its own terms: the predictions of the theory cannot unambiguously be tested because of the unsolved question of the separate influence of innate ability and the assumption of individual rational behaviour regarding the schooling decision. The question therefore is not so much whether schooling explains earnings, a fact commonly accepted, but why it does so.

Despite these objections, Blaug acknowledged that there has been empirical progress in human capital theory in the sense of better data, more sophisticated modelling and econometric analysis. That could also be said of empirical testing of earnings functions in the arts, though there are far, far fewer examples. The absence of reliable data sets still inhibits research in artists'

labour markets but what studies there are point to fundamental difficulties. Apart from the obvious question of what is talent – to be discussed below – other problems are present in relation to artists' earnings that are more pronounced than in 'ordinary' labour markets. The distribution of artists' earnings is far more skewed than is found in other occupations and therefore estimates of mean earnings lack conviction.[6] The associated greater variance of artists' earnings points to a far greater risk for artists but whether that suggests that artists are risk-averse and have to put up with greater risk, or are in fact risk-takers is open to debate; however, that is also a question of the validity of the assumptions rather than the accuracy of predictions. Artists' labour markets are dominated by self-employment, with frequent job search and other information problems. Artistic output almost by definition is heterogeneous and demand for it is radically uncertain; Caves (2000) has shown that these circumstances lead to contracting problems in the creative industries. Persistent excess supply of artists is widely inferred from the prevalence of unemployment among them (Towse 2001a). Moreover, there has been little empirical research on the demand for artists, though such studies have increasingly been done for other occupations (Acemoglu 2002)[7]. These observations suggest that artists' labour markets may be fundamentally different from other labour markets and that the human capital model is therefore less likely to apply to them.

4. Superstars, talent and creativity

In this section we discuss specific features of artists' labour markets that reinforce the view that they differ fundamentally from other labour markets. Chief among these features is the absence of a clear specification of talent and creativity and their role in artists' labour markets.

Sherwin Rosen in his seminal article 'The Economics of Superstars' (1981) focussed on talent as the cause of the skewed distribution of earnings in certain professions and the vastly higher earnings of the few superstars in them.[8] His explanation revolves around two causes: on the supply side the development of media technologies, for example sound recording, which have considerably increased economies of scale, enabling artists to serve a far greater market; and on the demand side, consumer preferences for greater rather than for lesser talent when there is imperfect substitutability between suppliers such as artists and entertainers. Superstars, according to Rosen's definition, are people who 'earn enormous amounts of money and dominate the activities in which they engage'; they are highly talented and highly rewarded for their talents because, as Rosen shows, the net revenue earned from talent is a convex function, causing small differences in talent to be magnified into larger differences in earnings (Rosen 1981, p. 845). Rosen does not attempt to analyse talent other than by giving some examples – gifted surgeons, sportspeople, singers – but he does state that talent can be ranked; indeed, he specifically avoids the problem of measuring talent by saying 'a cardinal measure of quality or talent must rely on measurement of actual outcomes' (Rosen 1981, p. 848).[9] Very Chicago!

We might try to analyse talent and creativity in the arts by analogy with the role of innate ability in human capital theory. In relation to education, innate ability reduces the cost of investment in schooling needed to achieve a given outcome, such as a university degree, as it is an argument in the educational production function; the greater the innate ability, the higher the productivity achieved by a given level of investment, or *mutatis mutandis* less investment is needed to achieve a given level of attainment. Innate ability therefore has similar effects to the fertility of land on cultivation. The analogy with the Ricardian theory of rent is a strong one. In

that theory differential rents are explained in terms of differential natural fertility of land and the demand for corn; as the demand for corn shifts out (say, due to population growth), land of ever less fertility is brought into cultivation with lower yields of corn. But which is cause and which is effect in determining rents?

Talent can be thought of as akin to the fertility of land, assumed to be a free gift of Nature; it is an inborn asset, which often manifests itself early in life and it enables the 'owner' not only to acquire skills more easily but also to achieve a high level of 'artistic productivity' – great performances – that few competitors can supply. In the human capital model, rents to innate ability accrue on the supply side. By contrast, Rosen's model puts the explanation on the demand side in which the perception of small differences in talent between individual artists causes multiplicative effects to incomes. One might paraphrase the Ricardian argument as follows: 'is the price of opera high because singers' fees are high, or are singers' fees high because the price of opera is high?'

But there still remains the problem noted earlier of the inalienability of human capital. When the output is a personal service such as a surgical operation or a live performance, it can only be supplied in conjunction with labour. The performer must be present to supply her talent live to the audience and therefore limitations on the supply of her time lead to rewards like rent being determined by demand. Towse (1992) argued that this is the case for the fees of singers. The story changes, however, when the constraints of the performer's time are lifted by making her services available in a reproducible form like a sound recording; this is what Rosen analysed in his model. Recording technology has enabled performers and other artists to reach vastly greater markets, exacerbating the effect of small differences in talent and reducing the possibility of substitution between artists of lesser or greater talent.

It is time to consider what is meant by talent and creativity: 'You've either got it or you haven't' is something frequently said in conservatories of music and colleges of art. As with the inalienability problem in human capital theory, talent does not have a price because there is no direct market for it – you cannot buy yourself some genius to get through university or become a singer (except, perhaps, with a Faustian contract!).[10]

Talent and creativity are widely viewed as the *sine qua non* of art, so what has cultural economics to say about it? A quick answer is that it has been little discussed. Throsby (2001) has a short chapter on creativity, which he links to his concept of cultural value and to a utility model of artistic supply; Frey (2000) discusses the motivation and incentives to create and the role of public support for artists; Casta?er and Campos (2001) deal with innovation by arts organisations, adopting a Schumpeterian approach; Caves (2000) deals with what could be called the industrial organisation of creativity, without however explicitly discussing the concept; Towse (2001a) analyses the reward of creativity, again with only a token discussion of creativity, and like Throsby, associates it with artistic supply. All these authors skate around the central issue, which is the contribution of creativity and talent to artists' productivity and earnings.

Creativity is often regarded as an individual activity, though there are many joint creative activities such as theatrical rehearsals and teams of scriptwriters for soap operas.[11] When we speak of creative artists such as composers, authors or painters, they are essentially envisaged as

working alone, experimenting with ideas. Another feature of creativity is originality, a spark of novelty that comes to the artist 'out of nowhere' or from reworking existing ideas in new ways. Creativity in these terms clearly parallels innovation and invention in science and technology. Following Schumpeter (1942), the reception of creativity must also be considered (Wijnberg 1995). Is it recognised? Can it be marketed? Can it be motivated by financial reward? These are questions that are relevant to the exploitation of talent and creativity by arts organisations and the cultural industries, as well as to cultural policies aimed at fostering the production of art. The economic value of creativity and talent is that they are necessary inputs to satisfy consumer demand for novelty and new experiences and to create lasting works of art.

Enough has been said to indicate that artistic creativity and talent are perceived differently in cultural economics than in human capital theory. Bearing this in mind, we now turn to the question of artistic training and consider the role of investment in human capital as a preparation for artistic occupations.

5. Artists' training and occupational choice

5.1. Expected income

According to human capital theory, occupational choice is made on the basis of expected lifetime income. As ability bias reduces the cost of acquiring skills and qualifications, students sort themselves into occupations in which they have a comparative advantage. Taken over a whole society, individual rational behaviour is thought to lead to an optimal allocation of human capital. Equilibrium is achieved in the usual way: excess supply in one occupation reduces earnings and thus the private rate of return, causing workers – at least to some extent – to switch jobs to other occupations. Skill shortages encourage on-the-job training; jobs/professions requiring a greater investment in higher education and professional training offer higher lifetime earnings to compensate for higher costs of study. Experience adds to human capital over the workers' career and is rewarded by higher earnings.

The question is: could this theory apply to artists' labour markets or are they really different from other labour markets? Artists may not be rational wealth maximisers, something that is widely believed and frequently stated by artists themselves (Abbing 2002), but that is a behavioural assumption that cannot be tested directly. The key question is whether the choice of an arts occupation is based on the private rate of return to investment in human capital that is determined by the costs of schooling and artists' earnings. As reported earlier, Throsby (1992) found some limited support for human capital theory in the arts, so it is worthwhile taking it at face value and seeing what resonance the theory has for artistic training and occupational choice.

Surveys have shown that median earnings in the arts are always lower than those of other equally qualified workers, even though the artist population has a higher than average level of educational attainment. The lower expected lifetime earnings in the arts, combined with the higher indirect costs, ensure that discounted costs exceed discounted benefits in arts occupations (Towse, 1996). What may modify these results in the arts is the longer working life of some artists; cross-section studies assume a normal age of retirement and that is misleading because retirement may be very late in some artistic professions. Some artists continue to work until they

die, and with royalties from copyrights they can continue earning even beyond the grave. Even in the performing arts, where there is a premium on strength and (sometimes) youth, many performers teach and adjudicate long after they retire from performing. On the other hand, the direct cost of training (schooling[12]) performing artists in specialised institutions is higher than the average cost of higher education in general (Towse, 1993). However, as noted earlier, in many European countries higher education is provided free or at very low fees and even in the USA some students obtain scholarships that cover the cost of training; public finance therefore reduces the direct costs of training and, other things being equal, should increase the private rate of return to training.[13] But even if, following Mincer, we ignore the direct costs of training, the fact that courses in performing arts are longer than those for most other subjects raises the indirect cost of study and would therefore reduce the private rate of return.

Despite the unfavourable prospect of financial reward in arts occupations, higher education courses for artists are typically over-subscribed and that contributes to the over-supply of artists. The question of how many places should be offered in specialist colleges has been a hotly debated one for many years: should the number be restricted so as to ensure that only the most highly talented students receive artistic training, or should more be admitted in the hope that good quality training will enable them to reach a satisfactory standard of competence? It is widely accepted that all students who complete formal training in the creative and performing arts will not be able to make a living from their art. However, when it comes to the public finance of higher education, considerations of equity often override those of efficiency. Moreover it is not easy to define what efficiency would mean in the circumstances of artists' labour markets, given the uncertainty surrounding the chances of success.

5.2 The role of training

The question still remains whether it is possible to increase an artist's human capital by investment in formal schooling and whether training can add value in the case of less talented students. 'You can't make a silk purse out of a sow's ear' is a saying that resonates through specialist art, music and drama colleges. Even if they have strict entrance requirements, colleges cannot assess the quality of entrants with any certainty – heterogeneity and the absence of objective information about quality pervades all aspects of artists' labour markets. It is also difficult to assess colleges' success in preparing students for work in the arts; the demand for artists' services in the labour market is uncertain and difficult to define since there are few 'regular jobs', with most artists working in self employment on short term contracts (Gurgard and Menger 1996). These problems raise a number of points about artists' training that can be analysed separately (though they may well interact in practice): the content of training; certification in artists' labour markets; and students' expectations about lifetime earnings, the nature of work opportunities and the duration of employment and career possibilities.

5.2.1. The content of training

Given the importance of talent and creativity in the arts, one might be tempted to conclude that the content of higher education courses in art and music colleges adds nothing to students' innate ability, the more so if only the most gifted students are able to gain entrance. In dance and music most students have already had years of specialist teaching, and in other art forms students

are expected to show a portfolio or other such evidence of attainment as an entrance requirement. What therefore can colleges offer such students? Here it is useful to draw a distinction between the 'art' element and the 'craft' element of artistic training. Even very talented students need to learn how to present their work, study repertoire or the craft of drawing and writing, and so on. Colleges also provide facilities that are difficult or expensive for individuals to provide for themselves, such as studios, artists' models, participation in theatrical productions, orchestras and suchlike. Colleges also provide students with a forum for displaying their talents to the outside world in exhibitions, performances, etc., and enable them to develop networks, learn professional conduct and assess their own abilities. This last point is particularly important because information about one's own quality is needed in order to make career choices – whether to choose another occupation, whether to aim high or low, etc. MacDonald (1988) explains drop-out rates after the first few years of work in artistic occupations as the outcome of this search for information. Colleges may perform a preliminary sorting function by providing that information before entrance into the labour market takes place.

As a coda to this brief discussion of a complex subject, it is worth pointing out that surveys of artists' labour markets have revealed that a significant proportion of working artists did not receive specialist arts training.[14] There are two possible explanations: that they made the decision to be artists after having done another higher education course; and/or that they regarded the content of arts training courses as irrelevant, something that is frequently reported in surveys of working artists. Either way, the finding is hostile to the human capital model, as well as to the sorting model, as these artists were able to make their way without either formal training or a certificate and apparently with no earnings penalty (Towse 2001a).

5.2.2. Certification in artists' labour markets

Although colleges training artists award degrees and diplomas, studies of artists' labour markets have found that certification apparently plays a less important role in the arts than in it does other labour markets. Certification is of course highly correlated with formal schooling, which tests students for their achievement in following the curriculum. However, that may not provide the kind of information wanted by employers or others hiring artistic labour for several reasons. Artists typically are self-employed and so need not signal to an employer. A reputation for professionalism and high quality talent/creativity are very important in artists' labour markets and certification by art colleges apparently does not provide adequate information about these characteristics. Employers may not trust colleges' certification because they produce too many graduates, not all of whom are sufficiently talented. Colleges have their own objective functions and they maximise their income from student numbers, and they may also be pressed by funding authorities to offer a mix of services to a mix of students; these factors combine to give higher education institutions training artists the incentive to 'oversupply' graduates. Indeed as stated earlier, many 'employers' who hire artists show no interest in their paper qualifications and set up expensive screening arrangements of potential employees for themselves (Towse 1993, 1996).

5.2.3. Students' expectations

Students face problems in forming expectations about the probability of making an artistic career pay because there is little objective information available. Their subjective assessment of

their own talent and creativity is likely to be overestimated due to 'the overwheening conceit of the young', as Adam Smith put it in the *Wealth of Nations*, and objective information about future earnings and the ease of obtaining work is difficult to obtain in a labour market in which there is a wide dispersion of earnings and frequent job change. Following criticism that young people are let out into the real world without adequate preparation, colleges have made considerable efforts to offer courses on business methods and how to manage a career in the arts but often to little avail; students apparently fail to attend such courses, though they later complain that they 'should have been warned' about the difficulty of making and managing a career (Towse 2001a). These problems might seem to support the view that young artists are irrational. However, when 'nobody knows' about quality and demand for artistic output (Caves 2000), irrationality may be confused with radical uncertainty. Rationality is inevitably bounded in artists' labour markets.

Students also form expectations about non-pecuniary rewards such as the opinion of peers, the desire to work on one's own account and other 'psychic rewards'. These are particularly important to artists: and they accept earnings lower than those available in alternative occupations as a price worth paying for the chance to work in the arts and, as long as they can earn enough to live on from other work (arts-related or non-arts jobs), they do not change occupations. Throsby's evidence shows that once a 'satisficing' level of income has been reached from earnings from all sources, artists devote more time to arts work, eschewing the opportunity to earn more from doing more hours of non-arts work (Throsby 1992). Abbing (2002) has reinforced this view with ample anecdotal evidence from the visual arts world.[15] Artists often report choosing work that offers new challenges rather than repeating a former piece of work even if that would raise their earnings (Jeffri and Throsby 1994). This behaviour could be superficially interpreted as opting for utility rather than money but it may also be efficient in improving the artist's reputation, which is the best investment in her future, particularly for self-employed workers (Benhamou 2000). It is difficult to know when artists absorb these values – whether they do so as students or after they have entered the labour market. There have been few longitudinal studies of artists' careers by cultural economists that match students' expectations to their labour market experience.[16]

5.3 Does the human capital model explain artists' training decisions?

Finally, we come to the question of how well the human capital model performs in explaining artists' decisions on training and career development. If we were to take the extreme view that talent alone determines an artist's career and earnings, investment in schooling would not be worthwhile; by definition it could not raise productivity. However, casual evidence from the biographies of artists goes contrary to that view, as many highly talented artists have trained at art, drama or music college. Of course that could be for institutional reasons and we may question whether an alternative organisation of training such as private lessons could have yielded the same results. Apprenticeships in the performing and visual arts – the only source of training before the nineteenth century – are alternatives that are still sometimes available today, for example for potters and for opera singers.[17]

However, as noted above, part of the experience of attending college is socialisation and professionalisation. Blaug (1985) has pointed out that the three Ss – skilling, screening and socialisation – are as important in the labour market as the three Rs. All artists need to learn the ropes; networking – forming working partnerships, meeting with other artists and with agents who

may in future be in a position to offer work, getting recommendations from well-known teachers – may be more important than the schooling function. Tacit knowledge, trust and reputation, are also important in artists' labour markets. These are all features of social capital; are they also part of human capital formation? An important question is whether they are amenable to investment decisions. Tacit knowledge acquired in childhood for example cannot be regarded as an investment as it is not deliberately fostered, though early childhood education within the family may be, and often is in the case of children's dance and music lessons (Seaman 2003). Acquisition of tacit knowledge and early training certainly seem to play some role in occupational choice in the arts; there are many instances of children following in a parent's footsteps (and not only in the days when there was only on-the-job training). Early acquisition of knowledge is probably easily confused with innate talent in the arts. However, there have been no systematic studies of the influence of family background on occupational choice in the arts and it is all too easy to generalise from the Placido Domingos and Vanessa Redgraves of this world. This topic would be a very interesting research project and could shed light on the role played by social as compared to human capital investment; I return to this matter below.

These qualitative arguments may explain the weak effect cultural economists have found for the influence of human capital on artists' earnings. Schooling helps the artist get her first work assignment and that may be a critical step on the career ladder. Schooling also provides general training that can be used outside the arts and it teaches good networking and other 'social capital' skills. But if investment in human capital only marginally explains the observed high demand for arts training, does that suggest that sorting models perform better? It seems from the earlier discussion that certification also plays an ambiguous role in artists' labour markets. Besides formal schooling, there are other screening devices available such as prizes and competitions, awards from Arts Councils and other forms of informal certification that offer information.[18] However, employers do take note of the fact that artists have attended college because the college screened them on entrance; they also treat attendance as a signal that arts students will have acquired some basic professional skills, even if these are marginal to the innate talent necessary for undertaking work in the arts. It seems that in a situation with over-supply of new entrants and the presence of a sea of amateurs, the position of the potential 'employer' in the arts (as compared to other labour markets) is especially difficult because of information problems; on the other hand, making the right choice matters less in a situation in which frequent job change and working on short term contracts is normal. And, as reported earlier, having a higher education qualification pays off in arts related and non-arts work even if not for artistic work and that is an important consideration for the majority of artists who inevitably hold multiple jobs. Thus, there is some supporting evidence for the sorting model.

In short, the jury is still out on what is an appropriate model to explain artists' training and occupational decisions.

6. Human capital, social capital, cultural capital and their implications for training artists

We now return to the fundamental question of what purpose is served by the use of the term 'capital' in human capital theory. Originally raised by Blaug (1976), who asked whether human capital is in fact a useful metaphor, this question is being asked again in relation to social

capital and it is also relevant to the notion of cultural capital that has appeared in the literature of cultural economics. Social capital is a concept that originated in social theory. It has provided an umbrella term under which a range of diverse topics has been investigated by economists. Bowles and Gintis (2002, p. F419) define it as follows: "Social capital generally refers to trust, concern for one's associates, a willingness to live by the norms of one's community and to punish those who do not". However, Putnam (2000, p. 19) defines it as "…connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them…". Both aspects have been related to labour markets in general and specifically to human capital. In a recent review article, Sobel (2002) states: "economists find the social capital *metaphor* useful in studies of economic development, transition economies, common-resource property use, and education" (p.143, my italics). The concept of cultural capital was introduced by Throsby, who defines it as "an asset that embodies, stores or provides cultural value in addition to whatever economic value it may possess", where cultural value is defined as a combination of aesthetic, spiritual, social, historical, symbolic and authenticity values, typically produced by artists (Throsby 2002, p. 46).[19] Thus we have three somewhat related concepts carrying the label 'capital'. What do these concepts contribute to an understanding of artists' labour markets and indeed how appropriate is the capital metaphor in all these cases?

Since the World Bank's adoption of the concept of social capital, a number of objections have been levelled against it by economists, notably by Kenneth Arrow (2000) and Robert Solow (2000), who judge it according to the standard notion of capital in economics due to Irving Fisher. Arrow's definition of (physical) capital identifies three features: capital is deferred consumption; it can be deliberately accumulated by investment; and it is alienable. Solow added two further criteria: capital has a rate of return that can be used as a measure of its value; and capital depreciates, whether from use or from technological obsolescence. Both Arrow and Solow conclude that social capital does not have these characteristics. As Solow has said "social capital is an attempt to gain conviction from a bad analogy" (quoted in Sobel 2002). Many other economists have criticised the concept from various points of view (Fine 2001; Durlauf 2002).

Be that as it may, it seems that several features bundled together as social capital are relevant to artists' labour markets. How do these features help us understand artists' incentives to invest in acquiring skills and competences? If, as is the strong implication, social capital is a 'public good' (in the technical sense of that term, that is, non-rivalrous and non-excludable), the inference is that individuals would not have the incentive to invest in themselves and therefore artists' training would have to be collectively financed. However, if artists can appropriate the benefits for themselves, as they can with the human capital model, then they would have the incentive to invest in their own training. Though much of the research on social capital has been on its communal benefits, Glaeser *et al*. (2002) make the case that standard microeconomic analysis can indeed be applied to social capital formation. Their model of individual investment in social capital, in which individuals choose optimal levels depending upon the opportunity cost of their time and time preference rate, is almost identical to the human capital investment model. Clearly they assume that social capital is not a public good, although it may have some degree of publicness. More important for our present purposes is their assertion that: "(T)he connection between social capital and human capital is one of the most robust empirical regularities in the social capital literature. Better understanding of this connection should be a key goal for future research" (Glaeser *et al*. 2002, p. F455). The clear implication of this is that investment in social

capital is analogous to that in human capital – indeed, the two are 'joint products'. But if that is so, there is an identification problem of distinguishing the private rate of return to one from that to the other. That muddies the debate about the relevance of human capital theory in artists' labour markets. It is clearly important for policy purposes to understand their separate contributions to lifetime earnings in view of the public/private dichotomy.

The public/private division also arises in respect of cultural capital. Throsby defines cultural capital as the stock of goods and services that constitute society's cultural assets, which have been created by artists (past and present). He distinguishes tangible from intangible cultural capital: tangible assets may be privately or publicly owned but intangible cultural capital (which overlaps significantly with social capital) is always a public good. Both yield a return of cultural value that Throsby regards as a communal rather than an individual variable. However, the motive for the artist in creating these assets, according to the human capital view (which Throsby has tested more than any other cultural economist), is the desire for private gain, whether pecuniary or non-pecuniary. Thus, artists' human capital creates cultural capital – Adam Smith would have liked the implied doctrine of the unintended consequences of private action, the coincidence of private incentive with public benefit. As with social capital, there are strong externalities present in cultural capital (if not true public goods characteristics) that call for communal rather than individual investment.

One way of identifying the differences between these three obviously related capital concepts is to focus on their implications for cultural policy. A central concern of cultural policy is how society can best invest in the supply of artistic creativity. According to human capital theory, we should encourage artists to raise their productivity through subsidies to formal training courses in colleges and possibly also by giving artists basic income support or price subsidies in order to raise their earnings. Social capital instead suggests that developing social skills, joining professional networks, acquiring a reputation and the rest are what is needed to pursue a career; acquiring the right experience for building a reputation for reliable professional behaviour takes precedence over schooling. Some social skills may be acquired in specialised colleges but investment in social capital on-the-job through work experience is likely to be more effective. The policy implications of the social capital model are therefore that there should be subsidies to colleges providing hands-on experience with teachers who are professionally active, agreements with professional associations and trade unions to accept young entrants, and so on. It possibly also implies a policy of restricting the number of training places in college so as to raise the 'exclusiveness' and reputation of being accepted on a course. However, apprenticeship schemes and artist-in-residence placements would seem to be more effective in building social capital. As noted, social capital and human capital are likely to be formed side by side and for both there is a private return to the individual that is an incentive to investment.

The implications of the notion of cultural capital for cultural policy are complex and reach to the heart of artistic creativity and the difficulty of applying economic analysis when motivation and outcomes are not easily understood in terms of economic rationality. To say that artists are motivated by the desire to supply cultural value (as I interpret Throsby to do) is simply to 'pass the buck' by changing the language. It does not tell us how that translates into economic terms such as productivity or earnings. We may accept that cultural heritage (or accumulated cultural capital), whether tangible or intangible, is a public good formed by artists in pursuit of their own

motives but that does not tell us how it influences successive generations of artists. It could be argued that the greater the stock of cultural heritage, the more difficult it is for artists to be creative, and training that makes students aware of that heritage runs the risk of frightening them off. Conversely, making your mark may best be achieved by shock tactics rejecting that heritage. Therefore, investment in cultural capital by preserving heritages could be either an incentive or a disincentive to individual creativity and furthermore may similarly influence consumers' taste or distaste for new works. It is certainly difficult in some art forms, notably music and opera, to get audiences to attend performances of contemporary creators. The public good nature of cultural capital also implies that it is difficult for individual artists to appropriate the full economic value of their work (Wijnberg, 1995). This is one of the rationales for copyright law (see below).

The above points raise the question how artistic motivation may be stimulated by government policy. Frey (1997) has developed a general theory of economic motivation based on human psychology that includes the response to pecuniary incentives – extrinsic reward – but extends the maximand to the satisfaction of an inner intrinsic motivation. While other cultural economists have recognised this distinction, Frey's insight is what he calls the 'Crowding Effect', the proposition that inappropriate rewards can displace incentives; for example, monetary payment, an extrinsic reward, may crowd out intrinsic motivation and become a disincentive rather than an incentive for acts which are intrinsically motivated. A better response may be achieved by offering intrinsic rewards to inner-motivated output; an optimal system combines appropriate incentives and rewards. In applying this analysis to the arts, Frey (2000) asks how government support for the arts affects creativity. He distinguishes what he calls 'institutional creativity' from 'personal creativity': institutional creativity is motivated by extrinsic rewards and personal creativity is motivated by intrinsic rewards. Extrinsic rewards are what the market and the state can offer – the market via prices for artists' work and the state through direct financial measures such as subsidy, and indirect measures such as copyright law (Towse 2001b). Personal creativity is clearly more closely related to intrinsic motivation, which in its extreme form is the Romantic concept of the driven genius pursuing art for art's sake at all costs. Its reward is intrinsic, for example via recognition by one's peers; this is not something the state can offer. But even personal creativity is subjected by Frey to an economic interpretation by applying the all-powerful doctrine of opportunity cost: younger artists can 'afford' to be more creative than older established artists because they have less to lose artistically and financially.

Frey's theory seems to get us somewhat closer to the crucial question about creativity and cultural policy: can we 'create' creativity by investment, private or public? That obviously has important implications for the present-day policy in many countries that emphasise the role of the creative industries. However, whether we espouse the concepts of human, social or cultural capital as our guide to cultural policy towards artists, it is difficult to get away from the role of innate talent. In fact, none of these theories comes to terms with this issue. Even distinguishing intrinsic and extrinsic motivation does not solve the matter. All told, we must accept the fact that the probability of backing the right horse and choosing only highly talented artists to nurture and support is very low. 'Many are called but few chosen' has to be the motto for art colleges and artists' labour markets. At best, they filter out the least able and create conditions in which the best can make their way. Throwing money at arts training by way of investing either in human, social or cultural capital does not really solve the problem of how to create or improve creativity. So how should we attempt to create and improve creativity? The answer is quite simply that we do not know.

7. Human capital theory, copyright law and reproducibility

I now turn to an old problem in human capital theory – its inalienability - and argue that the combination of the ability to reproduce works of art ('reproducibility') and copyright law overcome previous objections to the capital analogy, namely that human capital cannot be separated from labour. There is a close relationship between human capital and copyright since both spring from the human mind. Copyright law protects authors and performers by establishing statutory property rights that enable them to control the exploitation of their works, granting them the exclusive right to authorize their use.[20] The economic purpose of copyright is to encourage creativity and the dissemination *inter alia* of works of art.[21]

The evolution of copyright law is inextricably connected to the ability to make mechanical copies that began with the invention of the printing press. The development of recording technologies – sound recording, motion picture making, photocopiers, home recording equipment (VCRs, CD burners) and now the internet – that duplicate a work from a master copy (a performance, a book, a photograph) has vastly extended reproducibility. These inventions have created markets for copyrighted works embedded in CDs, videos, computer games etc., that have been alienated from the person of the artist or creator. Creators mostly have their work marketed by 'publishers' (record, film, TV, publishing companies, art galleries and so on – firms in the creative or cultural industries) who act on the assignment or licence of the copyright by the creator. The typical contract is a royalty contract, which may or may not include an advance payment, sharing the sales revenue of the publisher for a fixed percentage, often 10 or 15 percent.[22] Once economic rights have been assigned, however, the artist has little residual control over exploitation (though moral rights may not be alienated). When firms decide to delete works from the catalogue, artists can rarely do anything to stop them. Copyright enables artists to earn from their investment human capital but it does not ensure they do so and how much they earn depends on market forces. It was noted earlier that superstar earnings are disproportionately higher than 'middle income' artists. That is also the case with copyright royalty income. Because superstars have greater bargaining power with firms in the cultural industries, they are able to strike a better bargain than 'ordinary' artists (Caves, 2000). 'Average' artists' royalty earnings, by contrast, are typically low (Towse, 2001a).

One other feature of copyright that can be mentioned in this context is 'works-for-hire', according to which copyright is conferred on the employer in cases where the employee was directed to do the work; that is typically the situation for Hollywood script-writers and animators, for example. Therefore the control of copyright assets depends on the way the labour market for artists is organised – the less full-time employment there is, the more important copyright is for freelancers.

The exploitation of the author's work embodied in reproducible form has a double-sided effect: it 'alienates' the author's human capital input from her labour as the work can now reach the market without the necessity of her presence; and through copyright law the publisher acquires a durable asset, the master copy, which he can exploit independently of the author (who may even be dead since the copyright term is life plus 70 years).[23] Thus the joint effect of reproducibility and copyright law has been the creation of capital assets in the hands of the firms in the cultural industries that may be traded and transferred in mergers. The AOL/Time Warner merger, for

example, involved the transfer of 1.5m song titles. This effect is believed by writers on the cultural industries to be responsible for increased merger activity (Bettig 1996).

Another effect of the combination of copyright law and reproducibility on artists' labour markets is that an artist can decide to allocate her time to earn a spot price or a future return – for example, doing a sound recording in preference to a concert (since the concert pays a fee and the sound recording a royalty). Copyright therefore alters the duration of human capital and artists' supply decisions. In addition to dividing their time between arts and non-arts work (Throsby 1996) or 'high art' and 'low art' (Cowen and Tabarrock 2000), artists can optimise a portfolio of copyrights that form part of an inter-temporal decision about present and future earnings. Taking this into account, an artist's earnings at any point in time depend upon wages and fees for the hours of work done in that period *plus* copyright royalty payments (the royalty rate times the number of copyrights the artist holds). It is to be expected that the higher the royalty income, the fewer hours of work artists would do in any given period. A model along these lines could be tested using data from artists' surveys that asked for separate information on fees and wages and on royalties.[24]

The combination of copyright law and reproducibility therefore fundamentally alters two issues in human capital theory, the inalienability of human capital from labour and the period over which the worker can recoup the investment in human capital. As a result of these two features, human capital thus becomes conceptually far closer to physical capital. It is likely that these features are also present in other labour markets, especially those in the 'information' industries. Casualisation of labour, preferences for self-employment, the increased value of information and knowledge, and the increased value of protection through copyright and other intellectual property law are growing in the economy at large. Artists' labour markets may indeed be the forerunner of a more general trend in the evolution of labour markets.

It remains to consider whether a policy of 'strengthening' copyright law or 'increased copyright protection', both much touted by the cultural industries and their pressure groups as assisting artists (as well as themselves). That is a complex question that has been little researched. Strengthening copyright for artists, for example by lengthening its duration, is a two-edged sword: while increasing protection it also takes more work out of the public domain, thus also increasing the cost of creation (Landes and Posner, 1989). It also benefits companies in the cultural industries more than individual artists since companies have better access to capital markets and a higher time preference rate, though it must be admitted that this is an assertion that remains unproven (Towse, 1999). In Towse (2001b), however, I argued that copyright may well meet Frey's call for intrinsic motivation for artists by providing symbolic recognition of their status. This is something that could be investigated further.

8. Conclusion

In this chapter, I have argued that human capital theory applies only weakly to artists' decisions about investment in schooling and training and about occupational choice. The same, however, can be said about the sorting model, though the case for it is possibly somewhat stronger. What is lacking in cultural economics is an understanding of talent and creativity, what economic factors motivate artists and how creativity can be encouraged as part of government

cultural policy. Bringing social and cultural capital into the equation do not seem to add much in the way of understanding artists' labour markets. The case has been made in this chapter that reproducibility of works of art in combination with copyright law alters the view that human capital cannot be separated from the labour of the artist but that separation, while intellectually interesting, does not help artists to greater rewards in and of itself; indeed, it may well be a cause of increasing skewness of artists' earnings. The effect of copyright earnings on artists' supply decisions is something that must be tested empirically and I have sketched a model that could be used as a basis for further investigation. It could be linked to longitudinal studies of artists' careers, another piece of research that is badly needed.

By concentrating on the role of human capital in artists' labour markets, the focus has been on the supply side. So far there have been no systematic studies of the demand for artists or attempts to analyse skill-bias in the arts. This type of study has increasingly been done in labour economics in order to understand changes in rates of return to human capital over the last 30 years (Acemoglu 2002). Cultural economists who have studied artists' labour markets are certainly aware of the increasing demands that are made on artists' skills and competencies and also of the ever growing skills of certain kinds of artists – for example, singers and instrumentalists now routinely perform music that was considered unplayable 75 years ago and do so with little rehearsal. That is surely a sign of increased productivity.[25] This is another important topic for future research in artists' labour markets.

It is essential that cultural economics in general and the study of artists' labour markets in particular continue to apply standard economic ideas to the arts and to test them. The arts form part of the economy; they use resources and produce consumer goods. Artists are workers – they may be more like ministers of religion, inventors or creative engineers than accountants or travel agents but as a starting point it is right to look for similarities between artists and other workers using labour economics and human capital theory. That has been the approach of those who initiated research on artists' labour markets; however, experience so far suggests that the human capital model is not the way forward. The overall conclusion, then, is that there has been empirical progress in the analysis of artists' labour markets but there is much more to be done.

In closing, it is interesting to note that there are some strong parallels between aspects of artists' labour markets and those of sportspeople. In both fields the role of talent, innate ability and ability acquired early in life exert a strong influence on earnings and career success, and superstardom is probably even more marked in sport than in the arts. Seaman (2003) concludes that there is much to be gained by cultural economists from joint research between the two fields. Maybe artists are after all not so completely different!

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[1] See Smith (1976) p. 124.

[2] It has, however, proved difficult to find convincing examples of specific training other than the necessary learning period that marks the first few days or weeks of employment for any worker.

[3] See Wassall and Alper in *this volume*; also McNertney and Waits (1997).

[4] Withers’ estimation was done in 1984 and Throsby’s in 1992; the references cited are reprinted in Towse (1997). The McNertney and Waits survey was done in 1988 and is also reprinted in Towse (1997), the earlier version now being difficult to obtain.

[5] Thirty years later Blaug’s insights have been confirmed by Weiss (1995), who states that sorting models are a refinement and an extension of human capital theory rather than an alternative.

[6] See Seaman (2003) for recent analysis of variances in artists’ earnings and for a comparison with sportspeople’s earnings.

[7] Towse (1993) collected information on the demand for classically trained singers.

[8] See further in Adler in *this volume.*

[9] See Towse (2001a) chapter 3 for a more detailed discussion of this point.

[10] Whether or not it can be produced through investment in schooling is discussed in the next section on the economics of training.

[11] Seaman (2003) contrasts research in the economics of sport on sportspeople working in teams with the far more limited work in cultural economics on teamwork in the arts.

[12] At the risk of confusing formal training in the sense of schooling with on-the job-training, I have switched to the common way of speaking of the lessons and other forms of teaching that are provided in specialist colleges as artists' 'training'. Not all arts training in that sense is confined to specialist art, music or drama colleges, even for performers: writers and composers often do academic courses in universities. There are different institutional arrangements in different countries. The point is that students receive formal education apparently dedicated to artistic occupations.

[13] The social rate of return in specific occupations is used to evaluate public policy decisions about the allocation of educational funding; Towse (1996) suggests the social rate of return to training artists is very low, even negative.

[14] 30 percent is a not untypical figure; see Towse (2001a).

[15] Abbing is writing mostly about the position of artists in the Netherlands, where a government support scheme for visual artists was tried in the 1970s, resulting in a vast oversupply of very large works of art. It also led to a considerable oversupply of artists with the result that art prices are low, creating a vicious circle of dependence on state basic income payments (Abbing, 2002; see also Rengers and Velthuis, 2002).

[16] See Wassall and Alper in *this volume* for a discussion of longditudinal studies.

[17] Until the mid-twentieth century in Italy, the standard training of singers consisted of the pupil going to live with the Maestro and having daily lessons. Tito Gobbi trained that way and so did Cecilia Bartoli, whose singer parents taught her at home. Conductors often started as *repetiteurs* in opera houses teaching singers their parts or even, as in the case of Georg Solti, as pianists working for a singing teacher. Opera houses have fairly recently reintroduced apprenticeship schemes for trained young singers to acquire work experience.

[18] See Wijnberg (2003) for a discussion of the role of awards in the arts.

[19] For a full discussion, see Throsby (2001; Ch. 2).

[20] Copyright law in the Anglo Saxon tradition applies both to authors, performers and

‘publishers’ – companies in the cultural industries, such as producers of sound recordings and film. In the European civil law tradition, authors’ r
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[21] See Landes (2003) and in *this volume*.

[22] Watt (2000) analyses royalty contracts in detail from the economic point of view.

[23] It is often forgotten that an author's work is protected for a longer period than the copyright term. If, for example, an author creates a work at the age of 25 and she lives to the age of 75, that work is protected for 120 years.

[24] For a preliminary attempt at such a model, see Towse and Watt (2005).

[25] One of the long run effects of the espousal of Baumol's Cost Disease in the performing arts has been the assumption that no technical progress is possible in the arts or on the part of artists. That is, however, a misunderstanding. See Cowen (1998) for a counter view; see also Baumol, Brooks in *this volume*.