

## **The Demand for the Arts\***

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February 2002

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\* A shorter version is forthcoming as an entry in the *Handbook of Cultural Economics*, Ruth Towse (ed.), London: Edward Elgar.

## **Abstract**

This paper discusses the demand for the arts from a theoretical and an empirical perspective. We suggest that the demand for the arts is price elastic and that art is a luxury good. Education and learning experiences are also important factors affecting that demand.

## **Résumé**

Ce texte discute la demande pour les arts d'un point de vue théorique et empirique. Nous suggérons que la demande pour les arts se caractérise par une élasticité-prix relativement importante et que l'art est un bien de luxe. L'éducation et l'expérience de l'art jouent également un rôle important sur cette demande.

**Mots-clés:** Demande pour les arts, l'apprentissage par la consommation.

**Keywords:** Demand for the arts, learning by consuming,

**JEL Classification:** Z1

*"If you gotta ask, you ain't never going to know"*  
*Louis Armstrong<sup>1</sup>*

## **Introduction**

An economist being asked to specify and estimate demand for the arts might begin to say that that it is not essentially different from the demand for more down-to-earth consumer goods and services. Then, and only then, he or she would want to consider the specificity of “art”. This short story summarises the lines of research followed by art and cultural economics so far in the field of demand. By and large, the first economic studies were concerned with income and price elasticities, which they drew from scanty data, basic consumer theory and crude econometric models. The literature is still groping towards firm answers to simple questions, like: Is art a luxury good? Is it price-elastic or inelastic? Do art goods have close substitutes? However, the consumption of art challenges the conventional assumptions of homogeneous goods and services, completed learning of tastes, independence of choice among individuals and so forth. How do we deal with aesthetic quality and the heterogeneity of tastes? How do consumers who do not have full knowledge of their own taste decide and rely on others? Indeed, if you are going to ask why you like the theatre of Shakespeare, the operas of Puccini, and the paintings of Manet, you are never going to know. The subtle alchemy of individual taste for the arts ultimately relies on self-experience.

Following the lead of Baumol and Bowen (1966) and the availability of data, a majority of studies have dealt with live performing arts (theatre, music, opera, dance) and the cinema, which is a good substitute (see, for instance, the early works of Moore 1968, and Throsby and Withers 1979). A growing number of studies (see, for instance, Frey and Pommerehne 1989, Agnello and Pierce 1996, Pesando and Shum 1999, Flôres, Gôres, Ginsburgh and Jeanfils 1999, Locatelli-Biey and Zanola 1999) are now investigating the pricing and choice of art works (paintings, pieces of sculpture, and other artifacts). Since the latter have distinctive features of financial assets- when there is an

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<sup>1</sup> Quoted by Throsby (1994).

organised market for resale -, public goods – when they are exposed by galleries and museums for public showing -, and uniqueness—they can be copied but not reproduced -, we find it impossible to render justice in a short paper to the literatures that have developed in parallel on art works and the performing arts. We focus our discussion on the demand for live performing arts and the cinema because it has been more extensively studied so far and raises interesting questions to demand theory. Readers who are especially interested by art works should consult the more extensive survey of Throsby (1994) and the additional references listed above. The aim of this review article is to bring some clarification on the theories which can be used to understand the cultivation of taste and estimate the demand for the arts. This exercise is followed by a brief summary of the empirical evidence.

## **The cultivation of taste**

The merit good nature of the classical arts is attested by the permanence of public policies to enhance and preserve their production and consumption. The learned people, who are generally lovers of the classical arts, think that very many others would eventually feel like themselves if they were better exposed to them. This remark, which needs to be taken seriously, implies that the taste for arts is acquired or discovered and the rate of art consumption increases over time with exposure. It may well be the case that the taste for popular culture, and even vegetables, is acquired or discovered too, but we would expect that most children have a broad exposure to such goods. Therefore, the difference between classical arts and popular culture or vegetables would seem to be that the former are far less widespread in the consumption of parents than the latter. This might occur if classical arts were a strongly inferior good but we would then run into a contradiction because they are disproportionately consumed by the rich and the educated. A more plausible assumption is that the classical arts are luxury goods<sup>2</sup> the consumption of which should relatively increase with economic growth. However, they run into the danger of getting lost over the generations by lack of sufficient early exposure to them. Subsidising the classical arts in order to give the new generations equal opportunities to invest in the acquisition of taste or discover their unknown taste for them would be a Pareto-improving policy. The relative price increase of classical arts due to a lack of technical innovation in their production (Baumol and Bowen 1966) would limit rather than legitimate the use of subsidisation.

Figure 1 will help to visualise this argument. It depicts the average variation of taste over time. The taste for good 1 (say, popular music) increases and eventually levels off because additional taste has been acquired through repeated exposure and experience. By contrast, the taste for a non experienced good (say, classical music) remains stable. Even though the average individual might have initially more taste for classical music than for popular music, she would end up liking popular music better after a while because she was not exposed to classical music. A statistical confirmation of this story is given by Kurabayashi and Ito (1992) that show a positive correlation of preferences for

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<sup>2</sup> Browning and Crossley (2000) show, under a few technical assumptions, that luxury goods are easier to postpone. Indeed, the consumption of classical arts seems to be easier to postpone than the consumption of vegetables.

different types of music of the same genre (either classical or popular) but a negative correlation between genres. Prieto-Rodríguez and Fernández-Blanco (2000) suggest, from a bivariate probit model, that both groups of popular and classical music lovers have a common “innate” taste for music. However, they also show that age has a negative and non-linear effect on popular music listening.

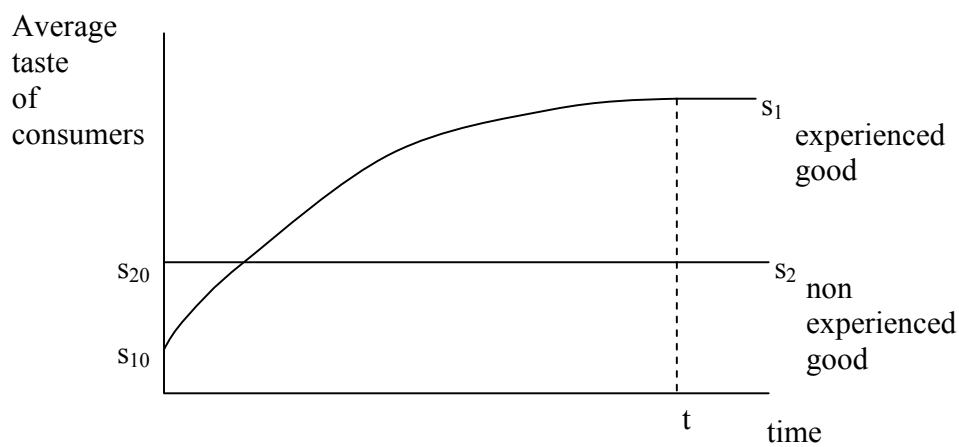


Figure 1 - The Cultivation of taste

The above intuition is borne by theories of specific consumption capital and rational addiction (Stigler and Becker 1977, Becker and Murphy 1988), and learning by consuming (Lévy-Garboua and Montmarquette 1996). These two classes of theories can predict the dependence of current consumption of art goods upon past behaviour. However, they have different implications for the shape of demand. The issues of quality and risk are also discussed. We hope to bring some clarification in the theoretical discussion by presenting the alternative hypotheses in a common framework which will facilitate comparison and permit the derivation of closed-form equations of demand. Assume simply two goods ( $i= x, y$ ) and three periods ( $t=1,2, 3$ ), and the time additive utility function

$$(1) \quad U(X_1, y_1) + \beta U(X_2, y_2) + \beta^2 U(X_3, y_3)$$

where  $X_t$  designates “art appreciation”, that is the subutility (household production function) associated with the art good (factor)  $x$  in period  $t$  and  $\beta$  is the discount factor. The four arguments of the utility function are the values expected at the time of decision, that is the beginning of period 1. To illustrate the properties of these models, we assume

$$(2) \quad X_t = s_t x_t, \quad \text{for } t = (1,2,3)$$

Expression (2) is similar to a quality-adjusted quantity, and  $s_t (> 0)$  would effectively coincide with an objective quality index if it were determined exogenously. Throsby (1983) defines objective quality for the live performing arts by a vector of characteristics including the repertoire classification, standards of performance, production and design, standards of comfort, seating, acoustics, etc. Hamlen (1991, 1994) even used the vibrato of pop singers as an index of their objective talent. Objective characteristics have been extensively used as regressors in hedonic price functions (Rosen 1974) but they fall short in the prediction of superstars à la Rosen (1981) and MacDonald (1988). In an interesting study, De Vaney and Walls (1999) show that movie box-office revenues are asymptotically Pareto-distributed and have infinite variance. Superstar movies are not determined by awards and totally unpredictable because the informational cascade among film-goers leads to a great many paths. The models of rational addiction or learning by consuming under review endogenise  $s_t$  in equation (2). They describe two processes for the cultivation of taste by assuming distinct ways of updating  $s_t$  to past (before  $t$ ) behavior. The latter is the endogenous determinant of taste in both models and we call it the “subjective quality” or, briefly, the individual’s *taste* for art.

For comparison purposes, we specify everywhere a quadratic period utility function

$$(3) \quad U(X, y) = X - \frac{1}{2} a X^2 + b y - \frac{1}{2} c y^2 + d X y$$

with  $a, b, c, d > 0$  and  $ac - d^2 > 0$  to ensure the second-order conditions.

### **Specific consumption capital and rational addiction**

This is the model developed by Stigler and Becker (1977) to account for musical appreciation and consumption and further elaborated by Becker and Murphy (1988) under an assumption of consistent forward-looking behaviour. The latter defines rational addiction (first introduced by Spinnewyn 1981) as opposed to myopic habit formation which was a common assumption for estimating “dynamic” consumer demand equations (Pollak 1970). The taste for music is generated by a music-specific capital which raises musical appreciation in the future. We write this simply<sup>3</sup>,

$$(4) \quad s_t = s_{t-1} + r x_{t-1}, \quad \text{for } t = (2,3)$$

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<sup>3</sup> Smith (1998) substitutes music-specific training (in the form of piano lessons, for instance) for music consumption (like listening to recorded music or attending concerts) to characterise the investment effort. This does not alter the main qualitative conclusions that we wish to draw here. Moreover, it is often difficult to distinguish empirically between training and consumption of music.

with  $r > 0^t$ . The individual maximizes her utility function (1) under (2), (3) and (4) and the wealth constraint,

$$(5) \quad \sum_{t=1}^3 \rho^{t-1} (p x_t + y_t) = W$$

The interest factor ( $\rho$ ) and the price of art ( $p$ ) are assumed constant because we focus on the role of tastes. With positive consumption of the two goods, the first order conditions yield the relative shadow prices of art appreciation in the three periods:

$$(6) \quad \frac{MU_{x_3}}{MU_{y_3}} = \frac{p}{s_3} \equiv \Pi_3$$

$$(7) \quad \frac{MU_{x_2}}{MU_{y_2}} = \frac{p}{s_2} [1 - \rho \alpha_3] \equiv \Pi_2$$

$$(8) \quad \frac{MU_{x_1}}{MU_{y_1}} = \frac{p}{s_1} [1 - \rho \alpha_2 (1 - \alpha_3) - \rho^2 \alpha_3] \equiv \Pi_1,$$

with  $\alpha_t = \frac{rx_t}{s_t}$ ,  $t = (1,2,3)$ .

The *rate of addiction* ( $\alpha_t$ ), that is the rate at which the taste for art increases with the consumption of art, is always positive. It might rise at young ages and eventually decrease. Under the assumptions that  $\alpha_1 > \alpha_2 > \alpha_3$  and that they are small, we can neglect terms of the second order – like  $\alpha_2 \alpha_3$  in (8) – and show that the relative shadow price of art appreciation declines over time.<sup>5</sup>

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<sup>4</sup> Becker and Murphy (1988) deal with harmful addictions, like heroin, by assuming  $r < 0$ . Therefore, their model cannot be applied to the cultivation of musical taste without the appropriate adaptations.

<sup>5</sup> By (4), (6) and (7),  $\frac{MU_{x_3}}{MU_{y_3}} - \frac{MU_{x_2}}{MU_{y_2}} < 0$  if  $(1 + \alpha_2)(1 - \rho \alpha_3) > 1$ . This inequality is certainly verified if

$\alpha_2 > \alpha_3$  since  $\rho \leq 1$ . Similarly, by (4), (7) and (8),  $\frac{MU_{x_2}}{MU_{y_2}} - \frac{MU_{x_1}}{MU_{y_1}} < 0$  yields, if terms of the second order

can be neglected:  $\alpha_1 - \rho \alpha_2 - \rho(1 - \rho) \alpha_3 > 0$ . This inequality holds because the left hand expression exceeds  $(1 - \rho)(\alpha_1 - \rho \alpha_3) \geq 0$  if  $\alpha_1 > \alpha_3$ .

We can then derive the *taste-constant Frisch* (marginal utility of wealth-constant) *demand functions* for art<sup>6</sup>

$$(9) \quad s_1 x_1 = D[c + bd - d\lambda - \lambda \Pi_1]$$

$$(10) \quad s_2 x_2 = D[c + bd - \sigma d\lambda - \sigma \lambda \Pi_2]$$

$$(11) \quad s_3 x_3 = D[c + bd - \sigma^2 d\lambda - \sigma^2 \lambda \Pi_3]$$

with  $\sigma = \rho / \beta$  and  $D = \frac{1}{ac - d^2} > 0$ .

If the relative shadow price of art appreciation declines over time, the demand for art appreciation will certainly rise over time when the discount rate does not exceed the interest rate (i.e.  $\sigma \leq 1$ ). The more impatient consumers, however, may diminish their demand for art appreciation over time even if the relative shadow price of the latter commodity declines. Moreover, an increase of the demand for art *appreciation* over time does not necessarily entail that the demand for *consumption* also rise because the cultivation of taste allows consumers of art to maintain their level of appreciation by a diminishing level of consumption. Once again, the consumption is the more likely to rise, the lower is the discount rate and the higher is the interest rate.

The choice of a quadratic utility function implies that demand be linear negative in the marginal utility of wealth, that is that art consumption be a Frisch-normal good. The wealth elasticity (holding shadow prices constant) is the product of the latter by the elasticity of  $\lambda$  with respect to wealth. With a decreasing marginal utility of wealth, the consumption of art is the more likely to be a luxury, the lower the levels of wealth. The demand functions (9) – (11) are linear negative functions of the shadow prices of art appreciation. However, demand studies have not measured the shadow price-elasticity of art appreciation ( $E_{11}$ ) but the market price-elasticity of art consumption ( $e_{11}$ ).

The two elasticities are related by

$$(12) \quad E_{11} = e_{11} + \sum_{t=2}^3 E_{\alpha_t p_1} E_{x_1 \alpha_t}$$

The shadow price elasticity is always lower than the market price elasticity on the negative scale because they differ by a term which is negative when addiction takes place. The latter is the product of two elasticities: the negative elasticity ( $E_{\alpha_t p_1}$ ) of the expected future addiction rate (in  $t$ ) to current price, and the positive elasticity ( $E_{x_1 \alpha_t}$ ) of

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<sup>6</sup> The Frisch demand function is natural in the time-additive framework. It is also convenient because the marginal utility of wealth is invariant over the life cycle and this non-observable factor can easily be captured through socio-economic variables when current income is not known, as is often the case in survey data.



current art appreciation to the expected future addiction rate (in  $t$ ). Hence, a shadow price-elastic demand for art appreciation is not inconsistent with a market price inelastic demand for art consumption.

Lastly, the constant taste – Frisch demand function given by equation (9) enables the researcher to calculate the current taste-elasticity of art consumption  $e_1 = \frac{\partial x_1}{\partial s_1} \cdot \frac{x_1}{s_1}$ .

The latter relates to the market price elasticity by

$$(13) \quad e_1 = -(1 + e_{11}) + \sum_{t=2}^3 E_{\alpha_t, s_1} E_{x_1, \alpha_t}$$

in which  $E_{\alpha_t, s_1}$  designates the positive elasticity of the expected future addiction rate (in  $t$ ) to current taste (in period 1). Since the products of elasticities under the summation symbol are positive, rational addiction enhances the positive influence of cultivated taste on the consumption of art in spite of the lesser need to consume for producing a given level of art appreciation. Moreover, since current taste has been shaped by the past consumption history according to (4),  $e_1$  is also positively related to the elasticity of art consumption to past exposure. Equation (13) then corroborates Stigler and Becker's (1977:80) claim that “the time (or other inputs) spent on music appreciation is more likely to be addictive – that is, to rise with exposure to music – the more, not less, elastic is the demand curve for music appreciation”.

### Learning by consuming

A different approach is taken by the theory of learning by consuming<sup>7</sup> (Lévy-Garboua and Montmarquette 1996). Consumers are supposed to be unaware of their true taste and to discover it through repeated experiences in a sequential process of unsystematic learning by consuming. Tastes are given but unknown. Every new experience of a given art form reveals to the consumer an unexpected positive or negative increment in her taste for it. Instead of assuming a deterministic increase in taste, as equation (4) does, the shift is now stochastic and may take negative as well as positive values with an expected value of zero. It is certainly more realistic to assume that individuals widely differ in their taste for specific art forms than is implied by the pharmacological force of addiction. Some like attending concerts, while others definitely prefer the opera. Recognition of the vast heterogeneity of tastes does not preclude the study of taste formation, as Stigler and Becker once feared (see, for instance, Becker 1996). Furthermore, it allows for the great differentiation of art and cultural goods. Keeping the notations defined above, the experienced taste for the art consumption of period  $t$  is

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<sup>7</sup> McCain (1979) coined the term "learning by consuming" in a study on wine. McCain (1995) used this idea in the context of a simulated model of bounded rationality to explain discontinuities in the consumption of art events.

$$(14) \quad s_t = E_{t-1}(s_t) + \varepsilon_t \quad , \text{ if } x_t > 0$$

where  $E_{t-1}$  designates the expectation operator before period  $t$ 's choice and  $\varepsilon_t$  is the taste surprise experienced in period  $t$  (i.e.  $E_{t-1}(\varepsilon_t) = 0$ ). Someone who discovers that she has a taste for music will normally experience over time repeated pleasant surprises by listening to music and will revise her expectations upward. Since consumers base their expectation of taste solely on their own past experience of the specific art form, the expectation of taste one period ahead is no different than its expectation in the more distant future. This feature of the model, which obtains whether expectations are rational or not, preserves the intertemporal separability of the utility function conditional on past consumption, contrary to what occurs in the rational addiction model. Consequently, the constant taste-Frisch demand function for art in period 1, as any other period, keeps the simple form

$$(15) \quad s_1 x_1 = D \left[ c + bd - d\lambda - \lambda \frac{p}{s_1} \right]$$

The shadow price of art appreciation is  $\frac{p}{s_1}$ , so that the shadow price-elasticity is equal to the market price-elasticity (i.e.  $E_{11} = e_{11}$ ) and the taste elasticity is simply related to the own-price elasticity by:  $e_1 = -(1 + e_{11})$ . If the price elasticity is greater than unity (in absolute value), the experience of consuming a good will have a positive effect on current consumption when the good was enjoyable overall, and a negative effect when it was not enjoyable overall. These effects of experience are reversed if demand for the good is inelastic, and are non-existent if the elasticity is equal to unity. This implication provides a way of measuring the price elasticity of art consumption from survey data yielding proxies for accumulated experience and taste for a specific art form. If rational addiction also takes place, the latter measures still provide an upper bound for the absolute value of the market price elasticity. Equation (15) also describes the dynamics of consumption. Since the dynamic elements of the model are the shadow prices rather than the parameters defining the utility function, the long-term equilibrium is achieved when all the subjective qualities have stabilised at path-dependent stationary values determined at the end of the learning period. The "true" price and income elasticities are the same in the short run and the long run. The learning by consuming model is thus a case where the addition of a stochastic process does greatly simplify, not complicate, the analysis.

Rational addiction and learning by consuming describe distinct processes of taste formation which may both be present at successive stages of consumption. West and McKee (1983) have suggested a threshold in the demand for the arts with art consumption climbing slowly for some time and then rising quite rapidly as the effect strengthens. Moreover, rationality has a different meaning in the two theories. It describes forward-looking behaviour (which is no more a controversial issue among economists) in one case; and it describes rational expectations in another. Besides, the sole and perhaps excessive reliance of expectations on past own experience introduces a

special sort of “myopia”, long recognised by habit formation models (e.g. Pollak 1970), which has in fact more to do with ignorance and uncertainty than with irrationality. Part of the ignorance and uncertainty which surrounds the demand for arts is resolved by repeated exposure and experience. However, an element of short run uncertainty is inevitable for live performances whose subjective quality cannot be assessed prior to own experience<sup>8</sup>. Abbé-Decarroux and Grin (1992) and Abbé-Decarroux (1994) suggest that potential spectators of live performances must bet on the latter’s quality. If the coefficient of relative risk aversion is smaller than one, the more risk averse the consumer, the less risky the performances attended. The presence of risk also helps to explain the role of critics and herd behavior in the consumption of arts.

## **The empirical evidence**

A growing body of empirical research is devoted to estimating the demand for the arts. The demand for live performing arts (theatre, dance, opera, music) and cinema has been estimated from aggregate time-series data, cross-section surveys on the audience of live performing companies, and individual survey data on specific groups or on the general population. The difficulty of gathering good data is obvious to account for own price, cross price, human capital accumulation, learning experience, quality and time costs. Thus, the results are often partial and the methodology varies considerably from one study to another. Since attendance to live performances is typically an infrequent event, the use of aggregate data requires caution in interpreting the price and income elasticities of demand when the frequency rate changes over time. The estimation of micro demand equations for the arts requires large samples in order to obtain a sufficient number of participants and be able to correct for a potential selectivity bias. These sources of bias have not been largely discussed in the empirical literature devoted to the demand for arts. Moreover, few empirical studies have relied on a structural model. Without specific theoretical references, our previous discussion points to the difficulty of correctly interpreting the empirical results.

Most of the empirical work on the demand for the arts is concerned with price and income elasticities and the tracking of who is the audience of performing arts. The characteristics of audience are often similar whether for classical music, theatre, museums: the audience, which includes a number of tourists (Gapinski 1988), is well educated, from upper and middle class and with well paying jobs (Dickenson 1992, Kurabayashi and Ito 1992, Towse 1994, Prieto-Rodríguez and Fernández-Blanco 2000). For live performances with the conventional demand equation, own price elasticity estimates (short term) are negative, relatively low but statistically significant (see for example, Moore 1966 and Gapinski 1984, 1986). Price inelastic demand was observed in studies for group of companies and Felton 1992 has confirmed this result even in

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<sup>8</sup> Price appreciation of an art object also contains a random component. Anderson (1974) showed that paintings are not very attractive investments when risk has been adjusted for. Similar findings are reported in Throsby (1994) for investments in the secondary and tertiary art markets and in Pesando and Shum (1999) for the return to Picasso's prints. However, Locatelli-Biey and Zanola (1999) find that, from 1987 to 1991, an investment in paintings (with repeat sales) performs well compared to U.S. stocks, U.S. 30 years government bonds and gold.

restricting the econometric regressions to a sample of subscribers (long term demand). She found an exception for metro orchestras and stressed that elasticities vary widely among companies (this is the well-known LeChâtelier principle). Cameron (1990) and Fernández-Blanco and Banos-Pino (1997) found that the demand for cinema (a luxury good) is price elastic. Few studies (see Krebs and Pommerehne 1995) have estimated cross-price elasticities, but Gapinski (1986) showed that price interdependencies with close substitutes do matter. Income elasticity estimates are positive, not always statistically significant, and in many studies less than one (see Gapinski 1986) This finding, which runs counter to the impression that art goods are luxuries, may be a consequence of the cost of time (Becker 1965). Attending live performances is a time-intensive consumption and Withers (1980) has shown that a large full-income effect may be partially offset by a negative leisure-price effect. He found a "pure" income elasticity of about unity.

Do these elasticity estimates differ when quality is taken into account? Quality matters to explain attendance to performing arts. Abbé-Decarroux (1994), observing the paid attendance to 64 productions by one theatre company in Geneva over seven years, showed that the demand for full price seats is inelastic but the demand for reduced price seats has a unit price-elasticity. Schimmelpfennig (1997) also estimated that for 3 out of 5 categories of seats, the demand for ballet is significantly downward sloping. Survey data are generally rich in quality variables, but do not normally allow for the variation of quality-adjusted prices. However, Lévy-Garboua and Montmarquette's (1996) learning-by-consuming model enabled them to recover the own-price elasticity from survey data which provided adequate measures of art experience and taste. After controlling for many variables including indexes of the cost of time and information, the cost of transportation and babysitting and the price of substitutes, they conclude that the demand for theatre is price-elastic, holding the marginal utility of wealth constant. The elasticity of price does not significantly differ from unity in absolute value and reaches a peak of 1.47 for the most experienced category of theatregoers. Their results also indicated a significant effect of the marginal utility of wealth on theatregoing.

The idea that early exposure to arts or investment in human capital increases interest in art consumption has been supported by various studies (Ekelund and Ritenour 1999, Smith 1998, Dobson & West 1997, McCain 1995, Lévy-Garboua and Montmarquette 1996). Smith (1998) concluded that culture or art is at the very least habit forming rather than addictive. Results by Cameron (1999) on the demand for cinema mildly support the rational addiction model.

Abbé-Decarroux and Grin (1992) have related risk with age and concluded that risk-free ventures will attract relatively older audiences (opera and symphony), while more risky venues will attract younger audiences (theatre). But the latter results may also be interpreted somewhat differently: older people are more likely to gain experience with the given stock of classical operas and symphonies, but less so with more innovative theatre shows.

Several studies have examined the consumer's decision to attend a specific live performance. The latter depends on the alternatives one has. The set of alternatives may differ from one individual to another. For example, the set of alternatives of a theatre critic exclusively consists of the plays which are being currently produced while an occasional theatregoer might consider a movie or a television show as viable alternatives. This might help explain why the evaluation of plays appearing in press reviews has a strong influence on attendance on a by-performance basis, according to Abbé-Decarroux (1994) and Urrutiaguer (2001), but, according to the second author, has no influence on the average attendance of theatre companies which often seek to attract a stable public to their theatre and away from alternative activities.

## Conclusion

It is likely that the demand for the arts is price elastic and art is a luxury good. But this prediction stems more, as yet, from a theoretical conjecture than from well-replicated empirical estimates. Careful econometric work, the increased use of large data sets, and a more intensive use of explicit models of the cultivation of taste are certainly needed before definite answers to these basic questions can be made. Price, income, education, and learning experiences are important factors in the demand for the arts, but art is also associated with emotions and feelings. The extent to which aesthetic emotions are amenable to economic analysis and measurement remains to be shown. However, we believe that this is perhaps not an impossible task. For instance, aesthetic emotions may be simply approached by the reported satisfaction for an experienced art event (Lévy-Garboua and Montmarquette 1996), which is an easily observable variable. Thus, the endogenisation and cultivation of taste, the role of emotions and the many distinguishing features of demand for the arts are important fields for future research.

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