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The demand for distinction and the evolution of the prestige car*

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Abstract. This paper studies the demand for a distinction good – the prestige car – and examines how this demand for distinction influences the evolution of the product. We focus on two very different sorts of distinction car: the Rolls Royce and the Ferrari. These two examples help us to articulate two polar approaches to the demand for distinction: distinction through antiquity and distinction through novelty. The paper sets out a model of the demand for distinction, and uses it to describe two trajectories along which the prestige car – and the demand for it – may evolve.

Key words: Consumption – Demand – Design – Distinction – Product evolution

JEL-classification: D12, L15, L62

1 Introduction

As consumption increases, why do consumers not become satiated, but instead continue to demand new products and services? Part of the answer is that consumers have a continuing desire to be distinctive, but consumption that is at first distinctive tends eventually to be copied and hence loses its distinction.

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Consumers are always seeking new characteristics with which to distinguish themselves, and demand is assured for products that embody such characteristics with style. Sometimes indeed this demand for distinction is never satiated.

Many economists have recognised this. Keynes (1931, p. 365) argued that needs "of the second class" – that is, those needs deriving from the desire to keep up with or ahead of one's peers – "may indeed be insatiable; for the higher the general level the higher still are they". Senior (1863) spoke of: "the desire to build, to ornament and to furnish – tastes which, where they exist, *are absolutely insatiable* and seem to increase with every improvement in civilisation".[1] And Marshall (1920) argued as follows, quoting Senior:[2] "Strong as is the desire for variety, it is weak compared with the demand for distinction, a feeling which ... may be pronounced to be the most powerful of human passions." The demand for distinction is related to Veblen's (1899) concept of conspicuous consumption, and Adam Smith's (1776) observation that "the chief enjoyment of riches consists in the parade of riches"[3]. The French sociologist Bourdieu (1984) has perhaps contributed most of all to our understanding of distinction as a force in consumption behaviour.

This paper is concerned especially with demand for a particular type of distinction good – the prestige car – and how this demand for distinction impacts on the evolution of the product. In particular, we focus on two very different sorts of distinction car: the Rolls Royce (and Bentley) and the Ferrari. These two different examples help us to articulate two polar models of the demand for distinction goods: distinction through antiquity and distinction through novelty. In a way these two different models have something in common with Huxley's (1963, p. 35) characterisation of the difference between art (or literature) and science: "Good art survives: Chaucer was not made obsolete by Shakespeare." In contrast, obsolete scientific expositions "will go the way of all earlier scientific writings and be forgotten."

The structure of the paper is as follows. Section 2 makes some preliminary observations about the prestige car market, and the Rolls Royce and Ferrari in particular. Section 3 draws on these observations to set out a model of the demand for distinction. Section 4 then uses this model to describe two trajectories along which the prestige car – and the demand for it – may evolve. Section 5 uses these models to interpret the experience of Rolls Royce and Ferrari. While neither case is so extreme as the two polar trajectories described in Section 4, they do occupy different points on the spectrum. Section 6 concludes.

2 The prestige car: an introduction

A study of the prestige car may convey the impression that this paper is concerned only with distinction amongst an economic elite. Actually, it can be argued

[1] Here quoted from Jevons (1970, p. 103)
[2] Marshall (1920), Book III Chapter 2, Section 1, para. 4
[3] *Wealth of Nations*, 1776/1974, Book 1, Chapter 11, Part 2

that many if not all consumers seek distinction, even if only a few can afford (and indeed wish) to assert their distinction by owning highly-priced assets. In Bourdieu's (1984) study, intellectuals with superior human capital signal their superior taste by listening to J.S. Bach's *Well Tempered Clavier*, while those of less distinguished taste are listening to the *Blue Danube Waltz*. This difference in consumption pattern does not obviously require superior economic means on the part of those of distinction. Indeed, seeking distinction in this way entails comparatively modest expenditures.

So in short, the demand for distinction is not uniquely about consumption behaviour of the economic elite. But the demand for prestige cars offers a very rich example of the demand for distinction. Using data from EIU (1992,1996) and AID (1996) we estimate that the "prestige" car category (including executive cars, luxury cars, sports and coupé, and sports utility) accounts for about 10 per cent by volume of the European car market. We do not have an estimate of the prestige share *by value*, but obviously it is much higher than 10 percent – high enough to convince us that the niche described here is not merely a minor curiosity.

2.1 Rolls Royce as a source of distinction

While the new Rolls Royce is always a source of distinction, nothing perhaps matches the sheer class of some of the early models. Indeed, if the ownership of a Rolls-Royce (and equally – or even more so – a Bentley) is to be a sign of old wealth, then the antiquity of the model is an important source of distinction. Some commentators have suggested that "excessive" growth in sales of some Rolls Royce models in the nineteen seventies and nineteen eighties had the effect of slightly debasing the brand. To drive a new Rolls Royce is perhaps too brash. To drive an old Rolls Royce is not.

Here is perhaps an example of the observation by Marshall (1920) that there are limits to the use of a particular mode of consumption to demonstrate distinction. Or as Furnham and Lewis (1986, pp. 198–199) put it: "Consumption which is too conspicuous identifies the *nouveaux riche*: there are times when it is much more sophisticated to wear a well-tailored suit and drive a Bentley, than brandish a mink coat from the seat of a Rolls Royce".

Using Huxley's metaphor, then, the Rolls Royce is "art" rather than "science". The "Silver Cloud" (1955–1966) was not made obsolete by the "Silver Shadow" (1966–1980). For the driving enthusiast, the technical performance of the latter was perhaps superior to the former. But as a sign of secure long term wealth and class, the former was probably superior to the latter. Indeed, perhaps the most prestigious of all were the early (i.e. pre 1955) "Silver Wraiths", "Silver Dawns" and "Phantoms". Many of these were finished by hand by specialised coachbuilders, and the most discriminating buyer could have an end product that was completely distinct from any other car.

These observations will help us in the next section to build a simple model of demand for prestige goods where there is greatest distinction in antiquity. How

is this distinction maintained? The answer is that the seller has to manage the selling process very carefully, to ensure that no "undesirables" manage to procure the prestige item, because if they did this could cause continuing damage to the brand. It is clear that price is not a sufficient rationing mechanism. Amongst the set that would like to own such a car, the price elasticity of demand is probably rather small. Accordingly the price mechanism has to be supported by other rationing mechanisms, and for this reason it is common to find that order to delivery lags are very long (many years). The aristocrat does not mind the wait; in any case he can still drive around in his old Rolls Royce. The arriviste in a hurry has a higher discount rate.

2.2 Ferrari as a source of distinction

In an article to mark the 50th Anniversary of Ferrari cars in 1997, the Times Newspaper of London[4] remarked that while the Rolls Royce had a strong (though not indisputable) claim to be the *best* car in the world, there could be no doubt whatever that the Ferrari was the most *exciting* car. And when we turn to prestige cars that yield distinction through sheer excitement, then in Huxley's terms we are perhaps nearer "science" than "art". The early models from Ferrari still excite, and certainly offer distinction in scarcity value. But none of these older models can perhaps match the sheer thrill of the F40, "Testarossa" or F550 "Maranello".

So while it would be an exaggeration to say that the new models make the old ones obsolete, it would be fair to say that for most purposes there is greatest distinction in ownership of the latest model. After all, ownership of a Ferrari is not primarily a sign of old wealth. The strongest signal comes from owning the most exciting car – and usually that is the latest model. It may be that some owners of the most recent models are brash arrivistes – but unlike the Rolls Royce, that does not really detract from the distinction of the Ferrari.

Nevertheless, to retain the distinction in the brand, Ferrari still needed to ration their cars to a select few. Enzo Ferrari, founder of the Ferrari Company, said that his only marketing strategy was to produce one car less than is required.[5] But continuing distinction in novelty, combined with repeat purchase of later models meant that if a car fell into undesirable hands the damage to the brand would be contained, because new models would displace (if not exactly make obsolete) any damaged brand.

2.3 The two sorts of distinction compared

These two examples occupy very different positions on the spectrum of prestige cars. This suggests that we need two different models to study the demand for distinction, and how that interacts with the evolution of the product. In one,

[4] "Ferrari's 50th: it's set to be a blast" *Times*, 3rd May 1997, *Car 97 Supplement*, p. 1

[5] In Fangio and Giambertone (1979). I am indebted to Mario Calderini for drawing my attention to this.

where distinction comes from novelty, the elite will trade up to buy the newest models, and the second tier of consumers will suffice with last year's model. In this context, the product must evolve to offer sufficient excitement so that the elite will decide to trade up to the latest model. Hence the emphasis in product innovation is on increased performance, and more exciting and distinctive design.

In the second, where greatest distinction comes from antiquity, the elite will seek to own the older, more distinguished models, while the nouveau riche will buy the newer models. Of course, this simplified outcome only applies if the prestige car is perfectly durable. Sooner or later the landed aristocracy may have to replace their elderly vehicles. However, Bennett (1995) states that over 70% of all Rolls Royce cars ever made are still in use today, so the scenario for this second model is not that unrealistic. In this context, the product must evolve *to sustain the distinctiveness of the older models*. The new model must be distinguished, of course, but must be subtly different from the old so that the elite can remain comfortable that their distinction is not threatened. Again the emphasis is on more modern design, but this time not so much to attract the new purchase as to reassure the existing customers.

3 A model of demand for distinction

In the modern economics literature, there has been a resurgence of interest in the formation of tastes. For reasons of space, we cannot do full justice to the literature, but pioneering contributions were by Gaertner (1974), Gorman (1967), Granovetter (1978), Liebenstein (1950), Mason (1981), von Weizäcker (1971). We also note important recent contributions by Akerlof (1997), An and Kiefer (1995), Bagwell and Bernheim (1996), Banerjee (1993), Bikhchandani et al. (1992), Coelho and McClure (1993), Corneo and Jeanne (1999), Donckner and Feichtinger (1993), Feichtinger et al. (1995), Frank (1985), Granovetter and Soong (1986), Karni and Schmeidler (1990), Miller et al. (1993), Pesendorfer (1995), and Young (1993). This literature has been reviewed by – amongst others – Becker (1996), Cowan et al. (1997,1998), Earl (1986), and Swann (1999).

In their survey, Cowan et al. (1997) argue that three generic forces drive a large part of the evolution of tastes: association or repetition; distinction or variety; and aspiration or excellence. Distinction is the desire to consume in a fashion that is distinguished – often from an earlier, and now rejected peer group. Aspiration, by contrast, is the drive to join a higher social group, and this can sometimes be achieved by the right sort of consumption. From now on, we shall focus on what we describe as models of the demand for *social distinction*, but in these models the *aspiration* to join the elite is also most important.

3.1 A model of demand for distinction: The basic infrastructure

The underlying model of demand is of the following form. Suppose there are K versions of a particular prestige good. These are ordered $k = 1, \ldots, K$, with K

the most prestigious and 1 the least prestigious. As stressed before, we should be careful not to say that K is the "best" version; rather it is most prestigious because it is owned by the highest class of consumer. Suppose that each version k can be described by a vector of characteristics Z_k, and has a price P_k.

Likewise, assume that consumers are ordered over a scalar class spectrum, $c \in [0, C_{max}]$. Let $\theta(k)$ describe the average class of those who buy product k, and let $n(k)$ describe the proportion of all those buying this prestige good who buy version k.

Let $d(Z_k, Z_j)$ measure the (scalar) "design distance" between versions k and j of the prestige product. In practice this perceived "design distance" may vary from one consumer to the next, especially if a consumer's perception of distance depends on his/her previous consumption experience. For example, experienced consumers may perceive differences that may be too subtle for the inexperienced. However, for simplicity we assume that the function $d(.)$ is the same for all consumers. We define d over the range [0,1]. Thus if $d(Z_k, Z_j) = 0$, that implies that there is no design distance between versions k and j. But if $d(Z_k, Z_j) = 1$, then that implies versions k and j are so different that no one could mistake one version for the other.

The function $[1 - d(Z_k, Z_j)]/2$ can be thought of as a probability function: it measures the probability that people (at large) could mistake k for j. If $d = 1$, and therefore, $[1 - d]/2 = 0$, that implies there is no chance that anyone could mistake k for j, because they are so different. If, by contrast, $d = 0$ (and hence $[1 - d]/2 = 1/2$), that implies k and j are so similar that they could easily be confused for one another. In this case, if someone were shown a model k and a model j, and asked to say which was a model k, there is a 50 percent chance that (s)he would give the wrong answer.

Using this structure, the consumer's utility from version k is given by:

$$\begin{aligned} u^c(k) \quad = \quad & \phi(Z_k) \\ & + \gamma_1 * \sum_{i=1,..,k-1} 0.5 * [1 - d(Z_k, Z_i)] * [\theta(i) - \theta(k)] * n(i) \\ & + \gamma_2 . \sum_{j=k+1,..,K} 0.5 * [1 - d(Z_k, Z_j)] * [\theta(j) - \theta(k)] * n(j) \\ & + \gamma_3 . [\theta(k) - c] . n(k) \end{aligned} \tag{1}$$

and if P_k is the price of product k, then the consumer surplus enjoyed by consumer c from version k is given by:

$$u^c(k) - P_k \tag{2}$$

The term $\phi(Z_k)$ describes the "private" surplus from consumption of k, independent of any distinction or aspiration effects. As price enters in a linear function, we can call this a money metric utility function (Deaton and Muellbauer, 1980). The second row of the formula describes the reduction in utility suffered because product k is not completely distinct from product i, and those who consume i are of lower class than those who consume k. The third row of the formula describes

the bonus to utility enjoyed because product k is not completely distinct from product j, and those who consume j are of higher class than those who consume k. Rows two and three could be described as measuring inter-segment errors: errors that arise from being attributed to the wrong segment. The fourth row of the formula describes, respectively, the bonus (or reduction) in utility obtained from the fact that the average consumer of k is of higher (lower) class than c. This is a within-segment error.

The parameters γ_1, γ_2, and γ_3 simply translate these class differential effects into a money metric. If these class-sensitivity parameters are zero, that simply implies the consumer is unaffected by class calculations.[6] If they are very large, that implies that class signal considerations dominate product characteristics in the consumer's utility function.

In many situations, it would be realistic to assume $\gamma_1 = \gamma_2 = \gamma_3$. In that case the last three lines of the formula have a rather attractive interpretation. They can be reformulated in terms of the difference between the *average estimate* of the class of consumer c and the *actual class* of consumer c. To see how this works, suppose to start with that all products from 1 to K are so different that all the d functions take the value 1. Then there is no risk that consumer c (who consumes k) will be mistaken for a consumer of any other product j. The second and third lines are simply zero. Hence the average estimate of the class of consumer c is $\theta(k)$ – that is, the average class of those who consume k. This may not be exactly equal to c, but in a highly segmented market, the error will be a relatively small one.

By contrast, suppose that in the case of products from 1 to $k-1$, there is so little difference between these and product k that all the d functions in line two are equal to 0; but that in the case of products $k+1$ to K, the differences are so great that all d functions in line three are 1. In this case, the average estimate of the class of consumer c will probably be well below c. He believes that no one will mistake him for a member of a higher class because no one will mistake his model k for a more prestigious model. But many (50 percent) will mistake him for a member of a lower class, because they mistake his model k for a less prestigious model.

In this rather gloomy situation, consumer c may wonder whether it is worth owning a model k at all, and may decide to seek distinction in other goods. In contrast if the asymmetry of the last paragraph is reversed, so that the d functions in line two are all 1, while those in line three are all 0, then c is much happier. The average estimate of his class will be above his actual class.

Consider one further scenario. Suppose all d functions are 0. Suppose also that the distribution of consumers across the class dimension is uniform – this

[6] Interestingly, if $\gamma_3 = 0$, then we have Douglas' (1975) consumer: a consumer whose group identity is so strong that he/she is unconcerned about being class differences within his group of "comrades". What does matter, however, is being mistaken for a member of any other group. And in this case, moreover, the consumer gains no pleasure in being mistaken for a member of a "higher class" – if indeed that means anything to Douglas' consumer. It is just as bad to be mistaken for a member of an "elite" as for a member of an "underclass".

is perhaps implausible, but it is useful for what follows. Suppose finally that all market segments are of equal width – that is, the distance from the highest class to lowest class in a segment is the same, irrespective of segment. In this case all market segments have equal numbers of consumers, so $n(k)$ is the same for all k. In that case the average estimate of the class of consumer c is once again equal to $\theta(k)$, the average class of the consumers of model k. This is exactly the same as it was when all d functions were 1 (see three paragraphs above). And because this error in the average class estimate is the same, then so also the consumer utility is the same.

This illustrates very clearly why there is no risk aversion in the utility function as written. In the case where all d functions are equal to 1, there is very little risk of being mistaken for the wrong class. (The only risk is within-segment risk.) But if $d = 0$ in all cases, there is a huge inter-segment risk as well. And yet, because the average estimate in the two cases is the same, the linear utility function computes utility to be the same. In practice it may be more realistic to build a degree of risk-aversion into this utility function, but we have not attempted that here.

4 Two paths for the evolution of the prestige car

This section uses the model of the previous section to describe two paths along which the prestige car – and the demand for it – may evolve. The first is a case of distinction in novelty; the second is a case of distinction in seniority (or even antiquity).

4.1 Case 1: Innovation to encourage elite to buy new products

We start with this case because it fits more naturally with common conceptions of demand for new products and product innovation. Figure 1 illustrates the diffusion of a prestige product, where elite customers continue to upgrade from one model to the next. The horizontal axis shows different classes of consumer: the high-class customers are to the right and lower class to the left. It is worth stressing that the density of consumers along this line need not be uniform; in fact it is likely that the density function is monotone declining from left to right. We discuss this further in the context of the second model.

The vertical axis describes the time at which consumers of a particular class are expected to buy a particular model. In the case of model A, this describes the time at which the consumer buys his first prestige good. In the case of models B, C, D and E, this describes the time at which the consumer upgrades from one model to the next. The linearity implicit in this model is perhaps unrealistic, but keeps the diagram simple. In any case the precise functional form will depend on the way in which class is measured. We should also add that this is a conditional adoption function: holding constant all other factors that might influence the date of adoption of a product, how does class affect that timing?

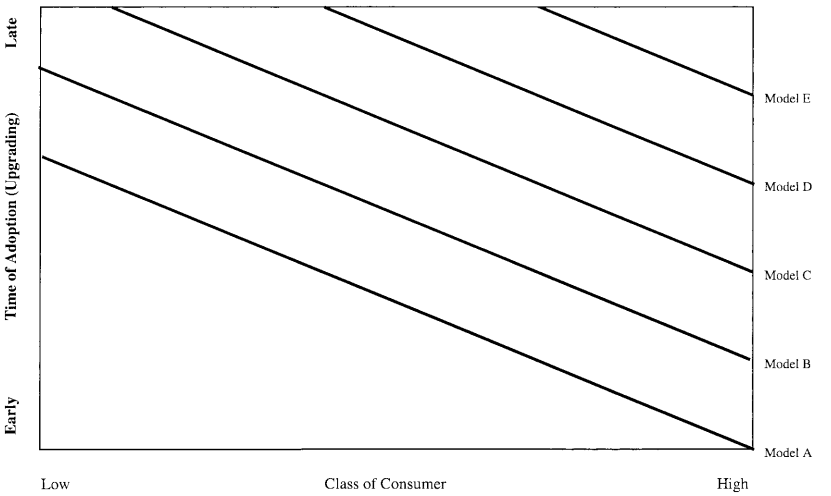

Fig. 1. Distinction in novelty: diffusion down-market with upgrading

The evolution of demand in this market is fairly simple. At the start, only the elite buy the good, and they all buy model A – which is the only model available, indeed. As time progresses, lower class consumers buy, and then when model B becomes available the elite will upgrade from model A to model B. Why do the elite upgrade to model B? Partly because they want to maintain their distinction from those lower class consumers who have just become owners of model A. In terms of equations 1 and 2, the elite upgrade because the "within segment" risk is too high. The average class θ of those who own their current model of car is too low, so they prefer to join a superior segment where the average class is higher – even though this upgrading is costly. This upgrading process will work so long as the latest model is sufficiently exciting to attract the elite consumers.

In principle this process can continue for several "generations". The elite remain members of the club, by now owning model D or E, even though some rather down-market people are now owners of second-hand model A's. The elite may stay in so long as there is enough design distance – or enough models in the design hierarchy – between them and the newcomers. So long as this distance exists, they may reason that no one would mistake them for one of these down-market newcomers.[7]

What happens if the designers of successive prestige models fail to sustain an acceptable design distance? Equally, what happens if the flow of new models dries up? Now, when the elite sell model A, they no longer upgrade to model B but instead leave the club altogether. When the elite were in the club – albeit owning more refined models – this conveyed a positive externality on lower-class consumers. There would remain a strong aspiration to join the club. But when

[7] There is a strong commonality between models of this sort and models of club goods – pioneered by J. S. Buchanan. For example, Buchanan and Stubblebine (1962) study the question of the optimal height of a fence between two neighbours, and this design distance could be seen in the same way.

the elite are no longer in the club, that externality is absent, and aspiration effects are weaker. In this case, diffusion is slower, and may eventually stop.

One question is worth our attention. What stops the ”lower orders” from buying models intended for the elite? After all, it is important (for the seller of prestige cars) to try to ensure that the most prestigious models don’t fall into the wrong hands. In this case, it is essentially the price mechanism that rations access to elite models. So a pattern of product evolution of this sort works best when the relevant elite have the highest incomes. That seems a reasonable characterisation of Ferrari ownership.

4.2 Case 2: Innovation to preserve existing investments

Now we turn to the second case of demand for distinction, where distinction comes from seniority or antiquity. Figure 2 depicts this case, and also adds on the vertical axis a density (or sales volume) measure. Assume that these prestige goods are infinitely durable. As before, the elite buy model A. As sales proceed a little down market, some of the elite become a little nervous that they are losing their distinction. Before that becomes a problem, the company must either discontinue model A – or ration it carefully – and introduce model B for sale to the next class cohort.

This new model (B) must achieve two things. It must be sufficiently attractive to consumers in this second cohort that they still buy even though they are thwarted in their aspiration to join the most elite part of the club (model A). But in the eyes of the elite, Model B must also be sufficiently different from model A so that they (the elite) do not feel their distinction is being compromised. In terms of equation 1, the design distance has to be just right: large enough so that the elite don’t suffer too great a risk of being taken as “second rank” (second line of equation 1) but not so large to remove the positive externality to the “second rank” (third line of equation 1).

In a related paper, Swann (1998) argues that skilled designers may find it helpful in this context to use characteristics that are only *partially visible*, to make the design distance from A to B look large in the eyes of the elite cohort, but small in the eyes of the second cohort. Why is this helpful? Suppose that the consumer of a superior model of car can recognise that his or her car is superior to a cheaper car, but the consumer of an inferior model cannot see the difference between his or her car and the superior model. In this case, perception of characteristics is *asymmetric*: consumers can perceive in which respects their product is superior to another but cannot perceive in which respects their product is inferior. (One explanation of this asymmetry would perhaps be that the ability to perceive characteristics is acquired through ownership of good.) This is in contrast to the traditional Lancaster (1971) analysis of characteristics, in which there are no such asymmetries.

In terms of equation 1, this would imply that the design distance between two products is different, depending on whether we look at it from “above” (line 2) or

from "below" (line 3). If the former is large while the latter is small, we achieve the best of both worlds: the reduction in utility described by line 2 is small while the bonus to utility described by line 3 is large. In short, when designers use partially visible characteristics to differentiate products, it is easier to design a sequence of new models where: (a) the distinction of the most prestigious models is maintained; but (b) owners of the less prestigious models still get strong satisfaction from owning something that is (to them) effectively the "real thing".

Once again a sequence of new models is introduced. But this time it is not the elite who buy the new models but the next cohort down in the class spectrum. As before, we should ask what stops the next cohort from acquiring the more prestigious models? In this case, it is unlikely that rationing by price alone will be enough. If the dates at which customers present themselves in the market are perfectly correlated with class then it would be sufficient for the producer to introduce a sequence of models, but only to sell one model at any time. The earliest (and classiest) consumers would be sold model A; then A is withdrawn, so that the next cohort can only buy B. But in practice this correlation is unlikely to be perfect. For that reason, producers will have to keep a range of models available at any time. But in that case, he faces a problem of rationing. In that case, rationing by a waiting list, or by more subtle selling techniques may be required. Certainly, long waiting lists have been a characteristic of the market for Rolls-Royce cars.

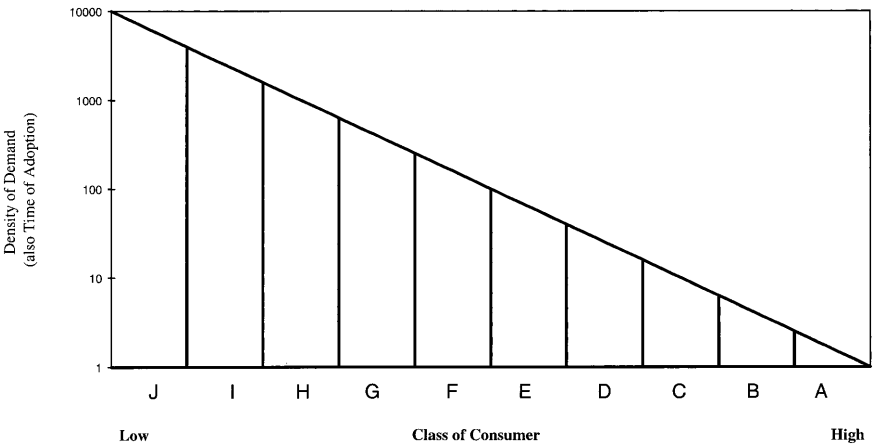

Fig. 2. Distinction in antiquity: market segmentation by design

As noted, Figure 2 also shows the density of demand. As drawn, with the vertical axis on a logarithmic scale, the size of each class cohort rises exponentially as we proceed down-market. This would be the case if the density of consumers by class followed an exponential distribution (assuming the class axis is on a linear scale) or a Pareto distribution (if the class axis is on a logarithmic scale).

4.3 Contrasting design imperatives

We have seen that in both cases a succession of new models *must* be introduced. This is not the result of competitive pressure from other producers; it is the result of the powerful demand for distinction amongst buyers. This is an interesting counterpoint to the often cited argument that in most cases unthreatened monopolists have little incentive to innovate. It is also interesting to compare this to the analysis in Swann (1990) where producers add additional characteristics to products when the product space becomes congested. Here the driving force for product innovation is consumer congestion, rather than product space congestion.

The key difference between the two models described here is that in the first case, producers are innovating to persuade elite customers to upgrade while in the second case they are innovating to persuade elite customers to hold on to what they have. In the first case, there must be some new product characteristics that appeal to the elite, which make them feel there is a large design distance between the new model and the old. It is possible (though not necessary) that the new model will be deemed better in all respects. In the second case, the new model need not inferior or superior. The main point is that it must be different.

What are the empirical implications of the above? Certainly we expect to see a steady turnover of models, but a range of models available at any time. But it is hard to be sure from the above whether turnover would be faster in case 1 or case 2. Perhaps the most important implication of the above is that we expect to see a wide variance in the number of sales per model – along the lines indicated in Figure 2.

5 Production of Rolls Royce and Ferrari from 1947

The models of the last section had some interesting predictions for the evolution of the characteristics of the prestige car. But it is a tall order to map out a comprehensive set of characteristics for the prestige car: there are so many dimensions. Instead, it has been possible to collect data on sales by model, which provide some interesting insights into the relevance of the models described above.

For Rolls Royce and Bentley, Bennett (1995) assembled data on production of each model (and indeed each version of each model) over a 40 year span. One complication arises in the case of Rolls Royce and Bentley cars finished by coachbuilders. Bennett (1995) describes this in some detail, and for those seeking the ultimate in distinction this is a very important source. For the ultimate elite, the question is not so much, “do you own a Rolls Royce?”, nor, “which model is it?” but “which coach-builder finished it?” In what follows we have treated coachbuilder finished versions of a particular models as one category, separate from those cars finished by Rolls Royce. This does not do full justice to the role of the coach-builder, and this simplifying assumption has probably lead to a significant underestimate of the number of economically discrete versions of Rolls Royce and Bentley.

Bellu (1990) provides the same data for Ferrari models, but because of the earlier publication date, and the fact that sales for some models still in production is not disclosed, we are not able to extend this picture as far in the Ferrari case. Again, Bellu gives some detail of the frequent use of coachbuilders to finish particular distinctive versions of particular models. Again, we have taken the full set of models as those listed in the Appendix to Bellu's book, but recognise that this too may underestimate the number of economically discrete versions of Ferrari.[8]

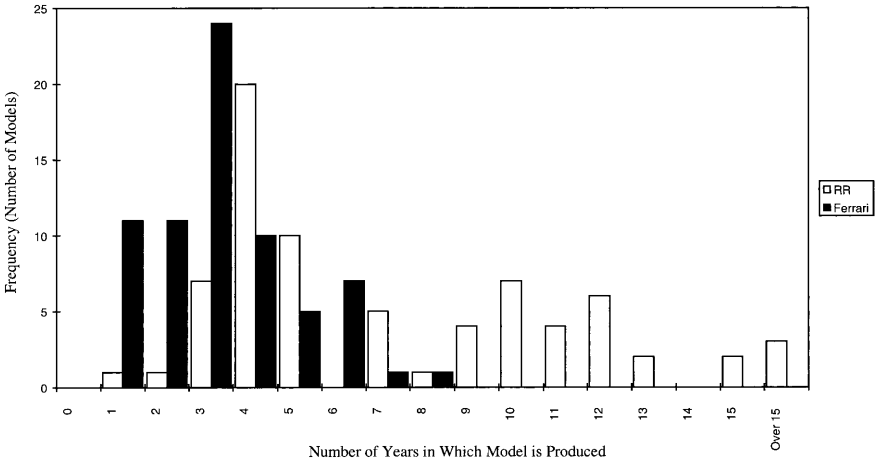

Fig. 3. Model lifetimes compared: Rolls Royce and Ferrari

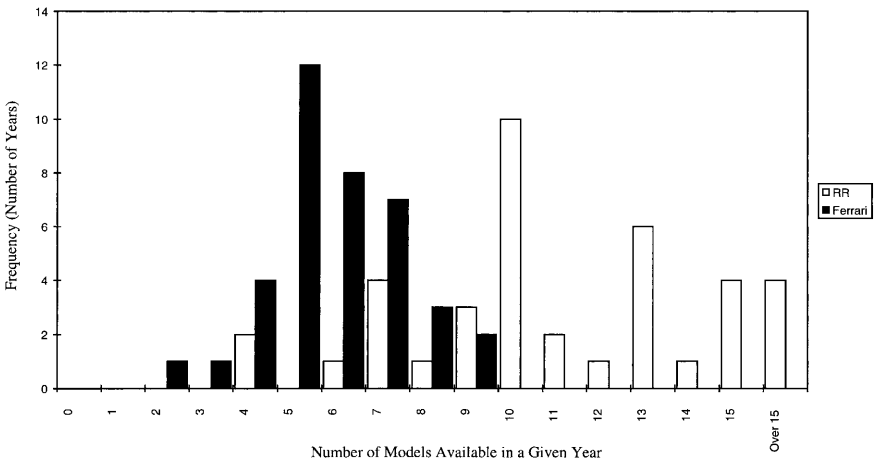

Fig. 4. Breath of product ranges compared: Rolls Royce and Ferrari

In all we have data on sales of 73 models of Rolls Royce or Bentley, and 70 models of Ferrari. From these we can build a reasonably accurate picture of

[8] This underestimate of the number of economically discrete models is probably more significant in the Rolls Royce / Bentley case than in the Ferrari case.

the models on offer between 1947–1985 for Rolls Royce, and 1947–1984 for Ferrari.

Figures 3 and 4 offer an interesting comparison of these data. Figure 3 compares the model lifetimes of the two makes: that is the number of years over which a particular model is produced. Any one model is typically produced only over a fairly short period. The models of the last section did of course stress that such a turnover is of vital importance in sustaining distinction and hence sustaining the growth of these markets.

It is clear from a comparison of these two figures that the lifetimes for Ferrari models tend to be much shorter (unweighted mean = 3.2 years) and have a lower variance than those for Rolls Royce or Bentley models (unweighted mean = 7.3 years).

Figure 4 compares the breadth of the product range: that is the number of distinct models produced in any one year. In both cases, the production in any year is made up from one or more "production" models, made in relatively large volume and several speciality models made in small volumes. The number of models offered at any time is a good deal lower (and with a lower variance) for Ferrari (unweighted mean = 5.8 models) than for Rolls Royce and Bentley (unweighted mean = 11.2 models).

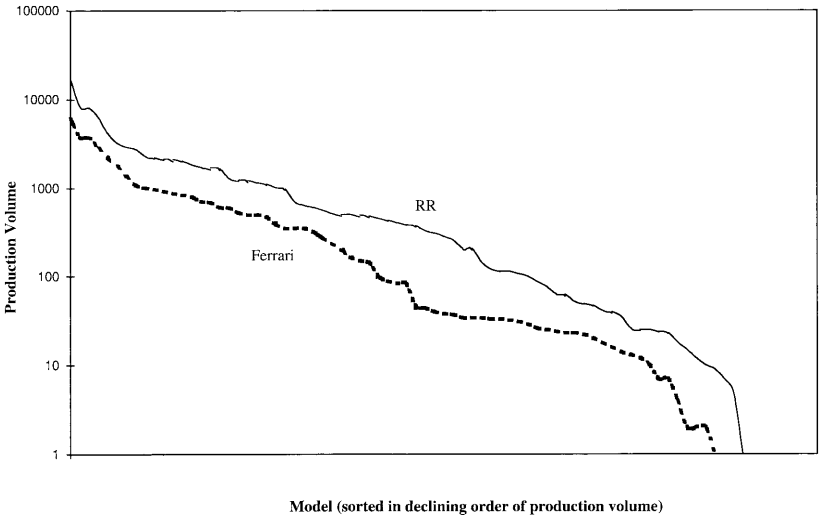

Fig. 5. Rolls Royce and Ferrari production: ranked by model

Figure 5 could be interpreted as the empirical counterpart to Figure 2. The different models of Ferrari and Rolls Royce / Bentley are sorted in order of production volume, and these data are plotted starting from the right hand side. The Rolls Royce "Model 1" and Ferrari "Model 1" were the most exclusive – only one of each model was produced. The graph then plots the volumes for the other 72 Rolls Royce / Bentley models and 69 Ferrari models on which we have data.

The similarity of these two lines is striking. The main difference between the two lines is that the Ferrari line is always below that of Rolls Royce. The widest selling Ferrari stops at total production of 6,116 while the widest selling Rolls Royce ("Silver Shadow" I) has total production of 16,717. With the y-axis of Figure 5 on a logarithmic scale, these additional sales may not look like a big difference; on a linear scale they would look more significant. From the perspective of the economic models in Sections 3 and 4, however, this difference may have had a very important implication for the relative success of these brands in the 1980s and 1990s. The models of the previous section suggest that large blocks of this sort can significantly reduce the utility of the brand to the elite, unless a very large design distance is maintained – and that is more easily managed when such large blocks are broken into several smaller blocks, each representing different models. It is interesting to note that these blocks are found immediately around the time at which Rolls Royce / Bentley production peaked. In the light of the models of the last section, this is suggestive, though there are of course several other macroeconomic effects at work here. But while Rolls Royce output has never again attained the levels of the early 1980s (Bennett, 1995), Ferrari output has continued to rise. In 1995, indeed, Rolls Royce / Bentley production was 1450 while Ferrari production was 3158.[9]

There is of course one other important difference between the two cases – and that brings us back to the central theme of this special issue. We suggested that while neither the Rolls Royce or Ferrari cases are as extreme as the two models described in Section 4, the Rolls Royce example is closer to the "distinction in antiquity" model and the Ferrari is closer to the "distinction in novelty" model. In the latter model, it is the elite who buy new designs to distinguish themselves from the lower ranks who now own last year's model. This demand could in principle be insatiable, as the elite will continue to seek such distinction. In the former model, it is not the elite who are buying the new models but lower tiers of consumer, who aspire to membership of the elite. Now, of course, such aspiration may be just as insatiable as the desire for distinction. But we have seen in Section 5, that aspiration is conditional on the continuation of elite membership of the club, and a design trajectory that allows the elite to think their vehicles are significantly different from the rest while the rest do not see this difference.

6 Conclusion

We have remarked already that the prestige car is perhaps only a source of distinction for the chosen few. Models of this sort could usefully be applied to other prestige goods, to which only the chosen few can aspire – e.g. the diamond (Spar, 1989). Nevertheless, we would reject the argument that distinction in any area of consumption is relevant only to the privileged few. Bourdieu (1984) argues that even the humble consumer of no great economic means may seek

[9] EIU (1996) and AID (1996)

distinction in consumption. Economics needs to pay more attention to the demand for distinction in consumption.

Critics of the characteristics approach sometimes say that the approach is unworkable because products have so many characteristics, even if many are ornamental details of secondary importance. From the perspective of this paper, however, these details are by no means secondary, for they offer further opportunities for distinction. And that, after all, is one of the most important reasons why people buy a Rolls Royce or Ferrari in the first place.

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