



The origin of utility: Sexual selection and conspicuous consumption

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ABSTRACT

This paper proposes an explanation for the universal human desire for increasing consumption and the associated propensity to trade survival opportunity off conspicuous consumption. I argue that this desire was moulded in evolutionary times by a mechanism known to biologists as sexual selection, whereby an observable trait – conspicuous consumption in this case – is used by members of one sex to signal their unobservable characteristics valuable to members of the opposite sex. It then shows that the standard economics problem of utility maximisation is formally equivalent to the standard biology problem of the maximisation of individual fitness, the ability to pass genes to future generations, and thus establishes a rigorous theoretical foundation for including conspicuous consumption in the utility function.

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Henry saw his car, a hundred yards away, parked at an angle on the rise of the track, picked out in soft light against a backdrop of birch, flowering heather and thunderous black sky, and felt for the first time a gentle, swooning joy of possession. It is, of course, possible, permissible to love an inanimate object. . . (Ian McEwan, *Saturday*).

1. Introduction

Homo Economicus's utility function constitutes one of the fundamental building block of economics. Its canonical form hinges on two assumptions: that there are trade-offs among the available commodities and that its shape is independent of the budget constraint. The latter implies that choices result from the interaction between income/wealth/resources, which are variable, and preferences, which are fixed. The trade-offs between goods implies that individuals are willing to sacrifice survival enhancing activities, such as the acquisition of nutritious food, of adequate shelter, of health care, to acquire goods with zero or negative survival value like luxury goods, leisure travel, entertainment, and so on. More succinctly, conspicuous consumption for its own sake enhances utility. This standard economics assumption clearly tallies with evidence, but the lack of a theoretical justification for it perplexes other scientists: "Western economics usually assumes that individuals are out to maximise personal gains, but where is the scientific justification for this assumption? And what exactly is 'personal

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gain?" (Trivers, 1985, p. 1). Trivers' doubts are spelled out more explicitly by Grafen (1998, p. 441): "The formulation of the dynastic utility function in terms of consumption purely for its own sake is inconsistent with the biological viewpoint". The inconsistency is the apparent lack of any fitness advantage, which any physical or behavioural trait must afford in order to develop and persist in a population.¹

In this paper I propose a foundation for the human propensity to trade survival opportunities off conspicuous consumption for its own sake rigorously based on evolutionary arguments, and therefore consistent with the biological viewpoint. The universality of the desire for conspicuous consumption across cultures and continents and the view of evolutionary psychology regarding the speed of adaptations (Barrett et al., 2002, p. 12) indicate that this trait was hard wired in the brain of early humans prior to their dispersion from Africa, and therefore must have provided evolutionary advantages in the conditions prevailing between one million and 80,000 years ago. I build on the established economics tradition which explains features of human behaviour through evolutionary lenses by looking for fitness advantages of these features. Alchian (1950, pp. 213–214) and Friedman (1953) viewed profit maximisation as a selection mechanism for firms. More recently, evolutionary advantages have been suggested for many human traits.² My viewpoint, however, differs from most of the literature in that the fitness advantage of the trait considered is not the enhanced survival chances of the individuals with the trait: indeed individuals with a stronger desire for conspicuous consumption for its own sake had a *survival disadvantage*, relative to individuals with a weaker desire. They, however, also had a *reproductive advantage*, which more than offset their survival disadvantage. Thus the trait became established in the human genotype, as the genes linked to the trait became more frequent as generations went by. In the jargon, conspicuous consumption is a signal that causes sexual selection by mate choice. This is an evolutionary mechanism by which individuals of one sex signal their unobservable quality to the opposite sex, and their reproductive success depends on the signal via the mating choice of the individuals of the opposite sex. This mechanism is the driving force for the development of traits which are differentiated by sex and have negative survival value³: from the extravagant plumage of pheasants, paradise birds, peacocks and many other birds, to the ritual dancing and hopping displays in "leks", to the courtship vocalisations in tigers, deer, crickets, frogs, to the flashing of fireflies, to the complex bowers built and decorated by bowerbirds; to human traits such as the male beard and the female breasts.⁴

Zahavi (1975) realised that males' signals must be costly, exactly in the sense in which signals are costly in the economics literature (Spence, 1973): the higher an individual's quality, the less burdensome it is for him to incur the cost of the signal, and the stronger the signal he will issue to distinguish himself from his lesser rivals in the eye of the females. His explanation of sexual selection was given a solid game-theoretic foundation by (Grafen, 1990a, b).

Consumption for its own sake, *conspicuous consumption*, I argue here, is precisely such a signal. It is easy to observe and expensive to acquire. It has served, throughout history, as an indicator of an individual's desirability as a mate. Veblen (1899) identified clearly the importance of expensiveness and wastefulness of conspicuous consumption: inexpensive items are not, *cannot be* effective signals, precisely because their very inexpensiveness makes it possible for everyone to sport them.⁵

¹ Bagwell and Bernheim (1996), Corneo and Jeanne (1997), and Hopkins and Kornienko (2004), among others, have posited that conspicuous consumption of goods such as luxury goods, which are "completely novel in evolutionary terms", enhances status and that desiring status is evolutionary "hard-wired" to affect *directly* an individual's utility (Robson, 2001a, p. 24). This however, still leaves open the question as to why a higher status is desirable, and why individuals would trade survival opportunities off enhanced status.

² Examples include altruism (Becker, 1976; Frank, 1987; Bergstrom, 1995; Bester and Güth, 1998; Eswaran and Kotwal, 2004), risk taking (Robson, 1995; Dekel and Scotchmer, 1999; Warneryd, 2002), experimentation (Robson, 2001b), fertility and labour supply (Grafen, 1998), preferences in general (Dekel et al., 2007, and the references cited therein), and more specifically, preference for relative consumption (Samuelson, 2004), individualistic (Ok and Vega-Redondo, 2001) and interdependent preferences (Koçkesen et al., 2000b, a), the rate of intertemporal preferences (Hansson and Stuart, 1990; Rogers, 1994; Trostel and Taylor, 2001), the dependence of utility on the presence of salient unchosen alternatives (Samuelson and Swinkels, 2006); intergenerational cultural transmission (Bisin and Verdier, 2001) and resource flows (Robson and Kaplan, 2003), the demand for grandchildren (Cox and Stark, 2005), sibling rivalry (Cox and Fafchamps, 2008), and more generally, the structure and development of the family (Bergstrom, 1996; Cox, 2007), the emergence of trade (Ofek, 2001; Seabright, 2004; Horan et al., 2005), economic growth (Galer and Moav, 2002).

³ "It is to the female's advantage to be able to pick the most fit male available for fathering her brood. Unusually fit fathers tend to have unusually fit offspring. One of the functions of courtship would be the advertisement, by a male, of how fit he is. A male whose general health and nutrition enables him to indulge in full development of secondary [not physiologically necessary for reproduction] sexual characters [...] is likely to be reasonably fit genetically [...] In submitting only to a male with such signs of fitness a female would probably be aiding the survival of her own genes" (Williams, 1966, p. 184).

⁴ See Zahavi and Zahavi (1997) for many more examples, or Andersson (1994, p. 10 and Table 6.A, pp. 132–142), for a taxonomy of the various mechanisms. Darwin devoted much of the *Descent of Man* (1871) to it, but, unlike natural selection, sexual selection was rejected for a long time by the scientific community (Andersson, 1994, pp. 17–19), a consequence, perhaps, of Victorian mental strictures and of Darwin's inability to offer a persuasive explanation of the mechanism through which it might operate (Darwin, 1871). Fisher (1930) reprised Darwin's idea, suggesting that sexual selection works through a mechanism called the "runaway process" or the "sexy son hypothesis". This is in the spirit of the herd theory: if all females prefer certain males, then it pays a female with no preference also to choose those males as mates, because her sons will need to attract the current females' daughters, who will inherit their mother's preferences, and will be more likely to do so if they inherit their father's genes. This idea is not fully satisfactory either: in the absence of a cost of acquiring the trait, all males will tend to possess the optimum level as generations go by: the observation of variation across individuals would need to be justified by evolution not having yet completed its course.

⁵ His books are rich in examples. "The chief use of servants is the evidence they afford to the master's ability to pay", rather than helping him in any useful manner (Veblen, 1899, p. 62). Their cumbersome liveries and unwieldy uniforms are actually designed to prevent them from performing any useful or productive activity. Similarly, skirts persist tenaciously as fashion accessories because, not despite, they "hamper the wearer at every turn and incapacitate her for all useful exertion", thus unmistakably demonstrating that she does not need to work (p. 171). Corsets and top hats are among his other examples. By the same token, in many animal species, powerful males obtain and protect large territories, much larger than it can be possibly be necessary to provide food and shelter to the family and subordinate individuals (O'Donald, 1963; Zahavi and Zahavi, 1997, pp. 28–29). This is of course an all too accurate description of the behaviour of human ruling classes nowadays and over the entire course of history.

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