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Respect

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Abstract
Becker (1974) introduced to modern economics the idea that others care about what others think about them and derived many useful insights from this assumption. But he did not provide a very complete description of the general equilibrium of an economy in which people both demand respect from and supply respect to others. This paper analyzes the equilibrium price of respect, showing how it depends on the distribution of material endowments and discussing whether we would expect that, as society gets richer, the market for respect becomes more or less important. It explains why a demand for respect is a human universal in terms of Becker's observation that this helps to provide insurance where markets are absent. Although the demand for respect is universal, the activities that command respect have enormous cultural diversity – the paper explains how there can be many Nash equilibria if respect is withheld from those who violate prescribed behaviour. Finally the paper discusses where, in a modern economy, respect is demanded and supplied arguing it is primarily bundled up with other goods and services because of the nature of the costs of supplying it.

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Introduction

People care about what others think of them. This observation was introduced to modern economics in Becker (1974, 1976) who used it to motivate his paper, 'A Theory of Social Interactions'. Becker also notes this is an old idea and gives the examples of both Bentham and Marshall who included such desires in their lists of basic human wants. The first part of Becker (1974) considers a model in which people get utility from material consumption and from 'distinction', the consumption of which can be increased by expenditure of material resources. Becker then considers how the demand for distinction is likely to be affected by increases in income and the 'price' of distinction, and then applies this framework to a number of situations, one of which has spawned the very productive theory of the family (Becker, 1991).

But the model in Becker (1974) is almost entirely a partial equilibrium model in which the price of distinction is treated as exogenous. This can be thought of as a complete analysis of the 'market for distinction' only under rather special situations in which the supply of distinction can be ignored[1]. There are surprisingly few papers that aim to provide a general equilibrium treatment of the market for distinction. One that does is Becker, Murphy and Werning (2005) who assume that individuals get utility from 'status' (the position in the distribution of distinction) and analyze the equilibrium price of status when status is conferred by direct purchase of a status position or by consumption of some good that is in inelastic supply (e.g. diamonds). And Benabou and Tirole (2006) consider a model in which information is imperfect and actions convey information about one's generosity and individuals want to be thought of as generous.

[1] For example, in which distinction is purchased by transferring resources to other family members so the price is always the price of the consumption good.

The approach taken in this paper is somewhat different – it argues that distinction is really something that is supplied by other people. If the consumption of diamonds leads to distinction in our culture this is only because others choose to confer distinction on the wearers of the biggest diamonds. A good example of this dependence of distinction on the attitudes of others is the wearing of fur coats. In Britain this used to be (and in some countries still is) a mark of distinction and status because they are expensive. But, in modern Britain very few people wear fur coats because the attitude (rightly or wrongly) of the general public is that to wear them is to condone unspeakable cruelty to animals. The distinction conferred on the wearers of fur coats crucially depends on the attitudes of others.

So distinction is really a flow of 'good feeling' from one person to another. To capture this idea of a flow between people this paper refers to this as 'respect' rather than distinction. The main reason for this is grammatical - one can say that A respects B (emphasizing a flow from A to B) but there is not an equivalent simple expression involving 'distinction'. In addition, distinction carries connotations of rank that may or may not be relevant but flows of respect may be two-way (mutual respect) or even, conceivably, provided to oneself (self-respect).

The first section sets up a model of an exchange economy (imagined to be a stylized model of a simple but rational society) in which respect enters the utility function and discusses the determinants of the equilibrium price of respect (in terms of the consumption good). In doing so, it treats the market for respect as a well-functioning perfectly competitive market. One might wonder if this is appropriate given that the market for respect is likely to deviate from the perfectly competitive ideal.

First, because there is not an explicit market in which respect can be bought and sold with a quoted price, the 'law of one price' is unlikely to hold in reality. In addition, respect is a heterogeneous product with the respect of some people being more highly valued than the respect of others, thus making it even harder to see a single price. From these facts, some have argued that it is wrong to think of respect as being bought and sold at all that, for example, if you try to buy respect you automatically do not get it. I think that conclusion is a mistake – our reluctance to supply respect to someone who craves it too obviously is really the bargaining ploy of trying to increase the price to someone who seems desperate for the product. The premise of this paper is that there is insight to be obtained by cutting through all the complications caused by the undoubted imperfections in the real world market for respect to think about the workings of this market in its idealized form.

What insights are obtained by the analysis of the market for respect in this way? The paper shows how in equilibrium, those with high endowments must be net demanders of respect and those with low endowments net suppliers if, as seems plausible, respect is a normal good. Hence the market for respect makes the distribution of consumption more equal than the distribution of income. The equilibrium price of respect depends on the distribution of income, with a rise in mean income raising the equilibrium price. We argue that there is no presumption that the market for respect becomes less important as people get richer so one cannot assume that respect is less important in our economy than in that of our ancestors. In addition, if the marginal propensity to demand respect is increasing in income (and the paper presents some suggestive evidence that this is the case) then an increase in inequality will also increase

the equilibrium price of respect. If this is true then the model predicts that the cut-off income level at which someone's net demand for respect is zero must be above the mean level of income – this can explain why our society seems to have a relatively small number of people who command respect and a large number who are net suppliers.

The paper also argues that recognising the demand for respect is a potential explanation for at least some aspects of apparently pro-social preferences. The main model used in the paper is one in which the utility function contains only private goods – the consumption good and respect. But if one only looks at the material sphere it appears that individuals derive utility from transfers to others (so appear altruistic) but the interpretation of this is that they are buying respect. Similarly, utility is affected by the price of respect which is affected by the distribution of income so individuals seem to care about the distribution of income.

Although a desire for respect seems to be a feature of all known cultures so is a human universal in the sense of Brown (1991), it is not entirely clear why this should be the case as the market for respect consumes some material resources that would seem to be better-used in increasing evolutionary fitness. The second section follows Becker (1974) and argues that the purpose is to provide insurance in a situation where explicit insurance markets are non-existent (as they surely were in the environment of evolutionary adaptation). We also argue that the market for respect only plays this role if respect is a normal good and that the insurance properties are improved if the marginal propensity to consume respect out of income is increasing in income. However, we also suggest reasons why the demand for respect will not be so strong as to eliminate all

inequalities in consumption, why we value the respect of kin more than non-kin, and why supplying respect to others is costly.

Although the desire for respect is a human universal, the activities that command respect show a lot of variation across cultures. Sometimes respect seems to be associated with activities that appear to have no rational basis. The model used in the paper up to this point is one of a 'rational society' in which the equilibrium is Pareto Efficient. The third section relaxes this and considers Nash equilibria. It is shown how inefficient activities can be sustained if respect is denied to those who do not supply respect to those who undertake the prescribed activities. Many behaviours can be explained in this way as there are an infinite number of possible Nash equilibria so this is a potential explanation for the enormous cultural diversity that we see in human societies.

The fourth section then considers our own culture and considers how respect is demanded and supplied in a modern economy. Because respect is largely exchanged in human interactions it is argued that it is most likely to be provided jointly with other goods so that an explicit market for purchase and sale of respect does not exist. Because people have many interactions at work it is argued that the workplace is somewhere where we would expect to see many transactions in respect. However, it is also argued that some transactions in the product market also involve transactions in respect. This section also discusses the incentives for technical progress in the supply of respect and how this might be achieved.

1. A Simple Model

Preferences

This paper models 'respect' as a flow from one person to another. Assume that all individuals have the same utility function that is given by $\tilde{u}\left(c, r^d, r^s\right)$ where c is a consumption good, r^d is a measure of the respect received from others (so the demand by this individual for respect), and r^s is a measure of the respect given by this individual to others (so the supply of respect by the individual). Assume utility is increasing in consumption and respect received, but decreasing in respect supplied. One might wonder why it is costly to supplying respect to others – it might be inherently unpleasant to give respect to others (and, hence, admit one's inferiority)[2] or because it takes time/resources to give respect. In the latter case, the c in the utility function should be interpreted as the consumption good used by the individual but not all of this will be 'consumed' – some will be used to supply respect to others. Assume also that there is diminishing marginal utility to c, r^d and r^s in the usual way.

One other simplification made for the moment is to assume that respect from all individuals is perfectly substitutable so that if r^s_{ji} is the flow of respect from individual j to i, the respect received by individual i is given by:

$$r_i^d = \sum_{j \neq i} r_{ji}^s \tag{1}$$

and the total amount supplied by i is given by:

$$r_i^s = \sum_{j \neq i} r_{ij}^s \tag{2}$$

[2] The evolutionary argument presented in a later section could be used to explain why this might be the case as if it is costless to supply respect, the 'price' will be zero and the market for respect will not serve the social insurance function it is suggested is its purpose.

The assumption of perfect substitutability in respect supplied and received implicit in (1) and (2) is made for simplicity rather than realism though later we show how a more realistic model can be reduced to the set-up here. We also assume that individuals do not supply respect to themselves though nothing much is lost by that given the assumption of perfect substitutability.

Transactions

How will respect flow between individuals in this society? We are going to assume that individuals are self-interested so that no-one is going to just give 'respect' for nothing in return[3]. In the model presented here the things that agents value are respect and material goods so there are two possible types of transaction – goods for respect, and respect for respect (mutual respect).

We are going to start with an analysis of a rational society in which any Pareto improving transaction will occur. In the 'simple society' in which there are no explicit markets, one should imagine that these transactions form a series of bilateral exchanges. In this case, an equilibrium allocation will be in the core, a set that might be quite large. But we will invoke the result (e.g. Debreu and Scarf, 1963) that as we replicate such an economy, the core shrinks to the perfectly competitive equilibrium and just discuss this instead. This does not mean there has to be an explicit market for respect (as discussed in the introduction, there is not one), just that the equilibrium outcomes will be the same as if there was one.

So we will think of equilibrium as being a price (in terms of the consumption good) of 'respect' and demands/supplies of respect that clear the market for respect.

[3] Though when one looks at human cultures one sees that the activities that induce some to supply respect to others often appear pointless and inefficient – why this might be the case is discussed in the third section.

Individual Demands/Supplies

Suppose individual i has an endowment y_i of the consumption good – the basic feature of the model is that there is variation in the endowment across individuals. Agent i will choose $\left(c_i, r_i^d, r_i^s\right)$ to solve the following problem:

$$\max_{\left(c_i, r_i^d, r_i^s\right)} \tilde{u}\left(c_i, r_i^d, r_i^s\right) s.t. c_i + p r_i^d - p r_i^s \leq y_i, r_i^d \geq 0, r_i^s \geq 0 \tag{3}$$

This will have a solution that can be written as the demand functions and supply functions, $r^d\left(p, y\right), r^s\left(p, y\right)$. A net demand function can be written as:

$$r\left(p, y\right) = r^d\left(p, y\right) - r^s\left(p, y\right) \tag{4}$$

Because it is only net demands that matter, it is helpful to write the utility function in terms of the net demand for respect. Hence, write:

$$u\left(c, r\right) = \max_{r^s} \tilde{u}\left(c, r + r^s, r^s\right) s.t. r^s \geq \max\left(0, -r\right) \tag{5}$$

One way to think about (5) is that the individual is supplying respect to themselves in an optimal way given the level of consumption and the net trades in the market for respect – however one does not need to assume that self-respect is feasible given the assumption that respect can be bought and sold in the market at price p. It is convenient to do everything in terms of the net demand so the utility function in (5) is what we will work with until the third section.

Let us consider some likely features of the net demand for respect. It is natural to assume that r is a normal good so the net demand for respect is in increasing in y. This means that, for any given price there will be cut-off income level, y^*, such that an individual with a higher income is a net demander of respect and an individual with a lower income a net supplied. Note also that because those with zero income will be net

suppliers of respect i.e. $r(p,0) < 0$, respect can be a luxury good in the sense of a greater fraction of income being spent on it even if $\partial r(p,y)/\partial y$ does not depend on y. However we might also expect that the marginal propensity to spend extra income on respect is increasing in y i.e. $\partial^2 r(p,y)/\partial y^2 > 0$ - certain results will be shown to depend on whether this is true or not. Because this is important, Table 1 presents some suggestive evidence on this point. It is natural to think that giving money to charity is one way to buy respect in our culture (though not the only way). Table 1 shows the fraction of expenditure spent on 'religious and welfare activities' (which includes all donations to charities) in the US by different income bands - the fact that the richer give a higher share of expenditure to charity is perhaps evidence that $\partial r(p,y)/\partial y$ is increasing in y. Pharoah and Tanner (1997) also report estimates that charitable giving is a luxury good in the UK.

If the agent is a net demander of respect then a rise in the price of respect has a substitution and income effect that go in the same direction, both acting to reduce the demand for respect. If the individual is a net supplier then the income and substitution effects go in opposite directions. However one can definitely say that the cut-off level y^* falls as p rises.

Equilibrium

The equilibrium price of respect will be one where net demands are equal to zero. If the distribution of income is f(y) we can write this as:

$$R(p) = \int r(p,y) f(y)\, dy = 0 \qquad (6)$$

Will this equilibrium price exist or be unique? Conditions for existence are straightforward – if the price is zero, the net demand must be positive, when the price is 'infinite', it must be negative. By continuity there must be a price at which net demands are zero. But because of the potentially ambiguous effect of a rise in the price of respect on the supply of respect by the lowest status individuals, there might be more than one equilibrium. Figure 1 shows a possible situation. There must be an odd number and simple-minded dynamics suggest that some will be stable and some unstable – in Figure 1 A and C are stable, B unstable. This raises the possibility that there are multiple equilibrium configurations of society which differ in the price of respect. At any stable equilibrium it must be that case that the aggregate net demand function, $R(p)$, is decreasing in p – this will be important in some comparative statics.

There are some features of the equilibrium which, though obvious, are nevertheless worth noting. Most importantly, there will be a positive correlation between income, consumption and respect so that the highest income individuals are also the ones with the highest status. But, this is not just because they are consuming more but because they give more to those with lower-incomes. There is a transfer of material resources from rich to poor so that the distribution of consumption will be more equal than the distribution of income. In hunter-gatherer societies this is often the way in which status is conferred as the institution of food-sharing is very common. Many anthropologists (e.g. Hawkes, 1993; Hill and Kaplan, 1994) argue that food is given up in return for prestige though there is some dispute about whether this prestige can be 'cashed-in' for material resources at a later date or is simply valued in itself (see Ridley, 1997, for an accessible introduction to these debates).

It is also of some interest to know the fractions of the population that will be on the different sides of the market for respect. We are used to thinking of societies as hierarchical in which the majority are net suppliers of respect to a minority. It is simple to provide sufficient conditions for this to be the equilibrium outcome.

Result 1: If $\partial^2 r(p,y)/\partial y^2 \geq 0$ then $y^* \geq E(y)$ with equality only if the marginal propensity to demand respect out of income is constant except for a set of measure zero.
Proof: See Appendix.

If the distribution of income is skewed so that the mean is above the median this result says that more than half the population will be net suppliers of respect in equilibrium so that our society will be hierarchical with a few high status individuals. The simplest way to understand this result is to consider the case where the marginal propensity to consume respect out of income is a constant so we can write the net demands as:

$$r(p,y) = \alpha(p)\left[y - \beta(p)\right] \tag{7}$$

In this case it is simple to show that the equilibrium price must satisfy:

$$\beta(p^*) = E(y) \tag{8}$$

So that an individual will be a net demander of respect if their income is above the mean. If the marginal propensity to consume respect out of income rises with income then this acts to further increase the demands of those with high-incomes leading to a higher equilibrium price and an even higher cut-off y*.

Some Comparative Statics

The price of respect is obviously affected by the distribution of income. So, lets consider how it is affected by changes in this distribution and how this affects the utility of different individuals in society.

First, consider an increase in the average level of income modeled as a shift in the distribution in the sense of first-order stochastic dominance. Because of the assumed normality of the demand for respect this must increase the net demand at any given price. At any stable equilibrium net demands must be decreasing in the price so this rise in net demand must raise the equilibrium price of respect.

Result 2: An increase in income levels must raise the equilibrium price of respect

Result 2 says that we would expect the price of respect to rise as material well-being rises. But this does not necessarily mean that the market for respect becomes more or less important as material well-being increases. This is a question of some importance as we would like to know whether 'respect' is more or less important in our societies than in simpler and poorer ones. A simple measure of 'importance' is the fraction of the total endowment of the consumption good that is used in transfers of respect between people.

To show this is ambiguous, a simple example will be used. Assume that the net demand for respect is as in (7) and that income evolves over time so that the distribution of log income is only changed by the mean. It will be convenient to work with the position in the income distribution, F, so that we will assume that the income associated with position F at time t is given by:

$$y(F,t) = \mu(t)\,\tilde{y}(F) \text{ where } \int_0^1 \tilde{y}(F)dF = 1 \tag{9}$$

So that $\mu(t)$ is mean income at time t. We know that the equilibrium price must satisfy (8) so that an individual will be a net demander of respect if their income exceeds mean income i.e. if $\tilde{y}(F) \geq 1$. This means that the cut-off between demanders and suppliers of respect will be a constant F* over time. Now consider the total amount of consumption good given up by those who are net demanders of respect. This must be given by:

$$\begin{aligned} p(t)\int_{F^*}^1 r\left(p(t), y(F,t)\right)dF &= p(t)\alpha\left(p(t)\right)\int_{F^*}^1 \left[\mu(t)\,\tilde{y}(F) - \beta\left(p(t)\right)\right]dF \\ &= p(t)\alpha\left(p(t)\right)\mu(t)\int_{F^*}^1 \left[\tilde{y}(F) - 1\right]dF \end{aligned} \tag{10}$$

So, the total fraction of material income involved in the market for respect is simply (10) divided by the average endowment of the material good $\mu(t)$. Whether this increases or decreases over time then simply depends on whether $p\alpha(p)$ is increasing or decreasing in p as we know that the price of respect will rise as average income rises. If $p\alpha(p)$ is increasing in p then respect becomes more important over time while if it is decreasing then it becomes less important. If it does not depend on p then respect maintains its importance over time. One interpretation of the condition about how $p\alpha(p)$ varies with p is whether the relevant question is whether demand for respect has a price elasticity bigger or smaller than one for those with very large incomes. If it is smaller than one then we would expect the market for respect to become more important as people get richer.

Simple introspection is unlikely to deliver a definitive answer to the question of whether the market for respect will be more or less important in modern societies and this

will be left as an open question that can only be answered if one managed to quantify transactions that involve respect.

It is not just the level but also the inequality of income that is likely to affect the price of respect. We model an increase in inequality as a mean-preserving spread in y[4]. One can sign the effect of such a change on the equilibrium price if one can sign the change in net demand $R(p)$.

Result 3: A mean-preserving spread in the distribution of y will raise (reduce) the equilibrium price of respect if $r(p, y)$ is a convex (concave) function of y.

Proof:

Invoking results in Rothschild and Stiglitz (1970), a mean-preserving spread in the distribution of y will reduce net demands at a given price if $r(p, y)$ is concave in y and increase net demands at a given price if $r(p, y)$ is convex.

Again, the result depends on whether $\partial r(p, y)/\partial y$ is increasing or decreasing in y. It seems plausible to think of $r(p, y)$ as being a weakly convex function of y so that the equilibrium price of respect will be non-decreasing in inequality. An increase in inequality will also lead to more transactions in respect so that the market for respect will become more important. The other side of this is that if some institution like the welfare

[4] Note that one may want to do a mean-preserving spread in log y not y itself. In this case the theorem that follows needs to have y replaced by log y.

state acts to reduce inequality in material resources then the price of respect and its importance in society will go down.

The Demand for Respect and Pro-Social Preferences

The model of this section is one in which individuals only care about what happens to them – their consumption of a physical good and the net demand for respect. However, if one just restricts attention to utility functions that depend on the consumption of material goods (of the self and others), the only way to explain the behaviour observed is if the material well-being of others enters the utility function, i.e. agents have social preferences. Hence this model is a potential explanation of certain aspects of social preferences. There are a number of ways to see this.

First, it appears that individuals derive utility from transfers to others (so appear altruistic) but the interpretation of this is that they are buying respect. One can see this from inspection of the direct utility function $u(c,r)$ in which r can be thought of as consumption given to others[5]. This way of thinking about the utility function is then identical to Andreoni's (1989) 'warm-glow' model in which individuals get utility directly by giving to others though the price of respect enters the utility function and is implicitly treated as a constant by Andreoni when doing comparative statics.

Secondly, utility is affected by the price of respect which is affected by the distribution of income This induces, through the indirect utility function, an apparent dependence of utility not just on own income but on average income, something that is

[5] Note that this particular specification only makes the utility function depend on the amount by which one increases the consumption of others not the level of their consumption (which is the more common assumption). However if the amount of respect that is obtained from someone by a given transfer of goods depends on the level of their consumption, the distinction might not be as clear-cut as that.

often claimed to be evidence of 'social preferences'. Here this apparent dependence occurs because the price of respect is not included in any price index designed to measure average incomes[6]. However, a rise in average incomes has different effects on the utility of different people. For those who are net demanders of respect, the rise in the price makes them worse off, so, for a given own income a rise in the income of others makes them worse-off. However for those who are suppliers the rise in the price of respect makes them better-off. This implies that the marginal utility of own-income is decreasing in the average level of income, at least over some range.

Hence, it is perhaps tempting to see the model presented here as an alternative to other theories of pro-social preferences of which the most popular current form is probably 'reciprocal altruism' (see Fehr and Gachter, 2000, for a brief survey)[7]. That literature emphasizes that agents are prepared to sacrifice material rewards both to reward fair and punish behaviour that is seen as 'unfair'. But, the evidence from some experiments does suggest that apparently pro-social behaviour is not always motivated by a concern for fairness. For example, Hoffman at al (1994) showed that in a dictator game when complete anonymity was assured a much higher proportion of subjects kept all the money for themselves. This suggests that apparently fair behaviour in dictator games without complete anonymity is because of a concern about what others might think about them – indeed the authors offer an interpretation virtually identical to the model of this paper arguing that "[other-regarding] behaviour may be due not to a taste for 'fariness'

[6] This assumes that the price of respect is not bundled up in other goods who are included in a price index – this is discussed later

[7] A strong version of this would be to argue that a model based on the demand for respect can replace all other models of social preferences. But, to do so, one would have to explain why, in anonymous games, people still seem to choose 'fair' outcomes (though so less so than in non-anonymous games). So one would have to be prepared to take the step of assuming that people get utility not just from what others think of them but from what they think they think of them. This idea is discussed further in the fourth section but might be one step too far for many economists.

…, but rather to a social concern for what others may think, and for being held in high regard by others" (Hoffman et al, 1994, p371).

Guth, Huck and Ockenfels (1996) also present the result of an experiment in which the endowment one subject may be high or low and they must choose to give money to others in a type of ultimatum game (though one with 3 players rather than the more common 2). A low offer could be a fair split of a low endowment or an unfair split of a high endowment. Large fractions of subjects who have the high endowment choose to give an amount that is a fair split of the low endowment, suggesting that the apparent generosity observed in ultimatum games is partly a result of concern about what others might think of them.

A very strong claim would be that all apparent observations of pro-social behaviour can be interpreted as motivated by a demand for respect. That is probably too strong – people are certainly observed to be generous in situations where the recipient of the generosity cannot directly deliver a flow of respect. It might be that people can derive utility from what they think others think about them, a possibility discussed in the conclusion. However, it may be that the two approaches to explaining pro-social behaviour are complements rather than substitutes. For example, in the fascinating account of the outcomes of economic experiments in different societies (Henrich et al, 2004), concerns not just about material pay-offs but what others think about one are often used to rationalize results. For example among the Hadza (foragers from Tanzania), it is stated that "cooperation and sharing is enforced by a fear of punishment that comes in the form of informal social sanctions, gossip and ostracism" (Henrich et al, 2004, p40). Hence the literature on reciprocal altruism could benefit from paying attention to the

psychic part of utility. Psychic punishment may be more effective than material punishment because it is cheaper to the person doing it so can be threatened more credibly.

A More Realistic Model of the Technology for Demanding and Supplying Respect

(1) and (2) assume that the utility an agent gets from respect is just the sum of the respect received from every individual. Implicit in this specification is the assumption that the marginal benefit of extra respect from an individual is the same for everyone, irrespective of how much respect they are supplying to you. But, while this specification is convenient, it may not be very realistic. It seems plausible to imagine that there is diminishing marginal utility of respect from any single individual – agents prefer to receive a little respect from a lot of people rather than a lot from a few people. A simple way of capturing this idea is to modify (1) and assume that:

$$r_i^d = \sum_{j \neq i} \phi\left(r_{ij}^s\right) \tag{11}$$

where $\phi(\ )$ is a concave function. If we just make this change and keep the technology of supplying respect the same then the equilibrium must have individuals who supply respect doing so in little packets to as many people as possible as this maximizes the total benefit. However, it is plausible to think there is some non-convexity on the supply side as supplying respect to an individual requires personal contact so there is a fixed cost of meeting them but, once met, the marginal cost of giving extra respect to them is quite small. So, let us assume that the disutility of supplying respect is given by:

$$r_j^s = \sum_{i \neq j} \left[C.I\left(r_{ij}^s > 0\right) + c\left(r_{ij}^s\right) \right] \tag{12}$$

where $I\left(r_{ij}^{s}>0\right)$ is an indicator function for whether j supplies any respect at all to i. We can prove the following.

Result 4:

a. Any non-zero flow of respect between individuals in equilibrium is of a size r* that maximizes:

$$\frac{\phi(r)}{C+c(r)} \tag{13}$$

b. the model can be reduced to the simple model in which $\left(r^{d}, r^{s}\right)$ is interpreted as the number of people from whom one demands and supplies respect and p is the price to be paid for a flow of respect of size r*.

Proof: See Appendix.

This result shows that for each set of individuals for whom there is a flow of respect between them, there is a constant amount of respect r*, and the choice for individuals is how many people to supply respect at this level to. One should then reinterpret the r in the model of the previous section as being the number of people one demands or supplies respect from and the price as the price of a packet of respect of size r*.

Status

Becker, Murphy and Werning (2005) use a model of status which can be interpreted as a model in which it is one's position in the distribution of respect that is important not just

one's own consumption as has been assumed so far. They show how the equilibrium can be implemented by a market in a status good (e.g. diamonds). But the status good could be respect itself in which case their model could be applied to the present idea. Their model can hence be thought of as differing from the model of this paper simply in the specification of preferences – the model here assumes only one's own net demand for respect enters one's utility function whereas Becker, Murphy and Werning (2005) assume the net demand of others enters negatively (as this reduces one's position in the status distribution). We are not going to discuss which model of preferences is better here but for many purposes it may not matter.

2. The Origin of the Demand for Respect

The desire for respect from others seems to a be a feature of all known human cultures so is a human universal in the sense of Brown (1991)[8]. This means that one should think that this demand is an adaptation that is either hard-wired into our genes or our culture (i.e. it is a necessary condition for a culture to be able to survive and reproduce[9]). But, why should this be the case? The problem is that the resources consumed by the market for respect would seem to be better used in directly increasing evolutionary fitness. Becker (1974, p1076) suggested that the main purpose is to provide insurance. In a society where individual endowments are very uncertain (e.g. because the outcome of a hunt is very uncertain) and there are no or limited markets (a situation that describes the

[8] A number of the listed human universals seem related to the ideas here : food-sharing, admiration of generosity, gift-giving, fairness.
[9] Cooking is something that is generally thought of as not being an instinct but is a feature of almost all cultures because of its great utility.

early evolutionary environment for humans) there is a big advantage to a mechanism that enables social insurance[10].

To make this argument slightly more formal imagine that the model analysed above is the equilibrium in a single period and that this is repeated over multiple periods. Imagine, for the moment that, all individuals have the same ability so the distribution of y in one period is independent from that in any other[11]. Imagine that evolutionary fitness is a function only of the consumption of material goods and is given by a concave function $v(c)$. If this is the utility function of individuals (so there is no demand for respect) then, in the one-shot game, there can be no exchange and no mutual insurance and expected fitness is given by $E[v(y)]$. However we know from our earlier analysis that, with a demand for respect in the utility function consumption will be a transformation of y and, hence, expected fitness will be higher when, ex post, individuals do not seek to maximize their fitness. This will also be true if the market for respect uses material resources as long as the cost is not too high. Of course, this result comes from 'missing markets' but, even if markets are now relatively complete they were not for most of our history.

We can take this argument one step further and suggest a reason why the marginal propensity to demand respect might be increasing in income as this will increase the insurance properties of the one-shot game. However it is likely that the demand for respect is never so strong that complete insurance is provided as this would not then give

[10] See Posner (1980) for an argument that many of the institutions of non-literate societies are adaptations to a demand for insurance that cannot be supplied through formal markets.
[11] Of course, there are differences in capabilities so that the endowments of some individuals will be systematically higher than those of others. Such individuals will tend to emerge as the higher-status individuals in society.

any advantage in fitness to those who are the most productive, and to select differentially on those is likely to have been an advantage in many early societies.

There is one big problem with the argument in this section. There are clear advantages for a group to have a market for respect to facilitate mutual insurance. But, within a group, there are advantages for individuals who are happy to supply respect to others when needs arise, but who do not themselves crave the respect of others.

Consider a situation in which others both supply and demand respect and consider the incentives of an individual. There are clear incentives to supply respect to others who demand it because this is likely to be a cost-effective way to obtain material resources. The problem is to explain why individuals should value the respect of others as doing so, means giving material resources to others in some situations. However there are obvious benefits to providing material support to kin and also to non-kin who can be expected to provide material support in the future to kin (including oneself). And this can be expected if one is providing support to those who have a demand for respect from one's kin. Hence, in our early evolutionary history when it is very likely that we lived in groups in which a large fraction of the group were related in some way or could be expected to provide help to relatives in the future, it is possible that this is a plausible explanation. This is essentially a variant of the vigorous debate about whether and how pro-social behaviour can emerge in evolutionary equilibrium – see Bergstrom (2002) for an accessible introduction to this for economists.

This approach can also explain a number of other features of the desire for respect. First, we value the respect of those who are closer to us more than those who are distant with closeness often being related to kinship. Secondly it can explain why the

demand for respect is not so strong that there is complete equality in outcomes – in this situation there would definitely be a benefit to an individual who valued respect less as the marginal utility must be higher. Thirdly it can explain why it may be intrinsically unpleasant to supply respect to others as this ensures a positive equilibrium price of respect this enabling the market for respect to provide its role as social insurance. Fourthly, a modified model can explain gradations of respect – someone who thanks us for something can do so grudgingly or profusely. As the cost of giving grudging or effusive thanks must be very similar, one might wonder why we see these gradations. A simple explanation is that they help to provide incentives so that if we give respect too cheaply, the power of respect to motivate is weakened. A good analogy is with the principle of marginal deterrence in punishment that suggests that the punishment should be proportional to the crime to ensure that criminals do not always have an incentive to commit ever-more serious offences to avoid capture.

Although the account given above offers a tentative explanation for why we value respect, there are perhaps other mechanisms that could produce the same effect. When one thinks of the model presented above as being a repeated game in which one's endowment is sometimes above and sometimes below the average, then the problem of providing insurance is one of sustaining a cooperative equilibrium in a repeated game. We know from folk theorems that equilibria that differ from autarky can be sustained but that one cannot generally get to the fully efficient outcome unless discount rates are sufficiently low. But, if there is some way of increasing utility from the cooperative act in the one-shot game, then this can make more efficient equilibria sustainable – making people value the respect of others may be one such device. In modern societies most

exchanges are between goods and money and the presence of money helps to solve the inter-temporal problem of people wanting goods at different points in time or different goods at the same point in time. Samuelson (1958) and others suggest that money serves this function (among others). Hence one can see respect as a form of 'proto-money', something that is universally accepted in exchange for material goods in societies with no explicit markets[12].

3. Explaining Cultural Diversity

This paper has emphasized that the all peoples have a desire for respect – they crave the good opinions of others. But there is enormous diversity across cultures in the type of activities that attract respect. The model we have presented here is of a 'rational society' in which respect is given in exchange for material goods and the equilibrium is Pareto Efficient both in terms of the utility function that people use in their behaviour and the fitness function. But one suspects that some practices that we observe are not efficient in this sense.

A good example are the potlatch ceremonies once characteristic of the Native American tribes of the Pacific North-West. Originally these were feasts provided by some individuals and with associated gift exchange. These institutions can be thought of as the exchange of material goods for respect as they were connected with status hierarchies. However, in at least one tribe, the Kwakiutl, the custom emerged of these

[12] It may also have other features of money – some of the literature on food-sharing among hunter-gatherers suggests that prestige can be used to purchase goods in the future. In this case respect is also a store of value.

potlatches becoming orgies of destruction in which gifts were burnt or thrown into the sea[13]. It is much harder to see the efficiency of such a destruction of material goods.

Obviously such institutions cannot emerge if one thinks that all exchanges of material goods and respect are in the core of the economy as any such allocation must be Pareto efficient. But lets weaken the equilibrium concept to be a Nash Equilibrium. We are interested in whether an inefficient Nash equilibrium can be sustained. To keep things simple assume that all individuals have the same endowment of income, y, as the transfers between people are not important for the point that will be made.

The simplest possible form of an inefficient equilibrium is one in which individuals simply destroy some amount of material good, d. If the utility function of individuals only contains material goods then this cannot be a Nash equilibrium – everyone would think they would be personally better-off if they did not do this. But now consider the situation where individuals also value the respect of others and lets try to sustain the destruction as a Nash equilibrium.

The first idea is to think that individuals who destroy the goods receive respect from others so that the institutions of society are:

a. destroy goods, d

b. supply respect, r, to those who do this.

In this case utility in the proposed equilibrium will be $\tilde{u}(y-d,r,r)$ as each individual destroys the goods, receives respect r from others and supplies it to others who do the same. However, this cannot be a Nash equilibrium – to see this suppose an individual destroys their own goods, receives respect for it but does not supply respect to those who

[13] Potlatches ended up being banned in both the US and Canada in the late nineteenth century though these bans were later lifted.

do the same. The utility in this case will be $\tilde{u}(y-d,r,0)$ which is higher than the equilibrium pay-off. And if everyone defects in this way, no-one will get any respect for destroying goods and no-one will do it, taking us back to an efficient outcome. The problem is that there is no incentive for individuals to supply goods to others who destroy them as they get nothing back in return.

But we can sustain the inefficient equilibrium if we add a third rule of behaviour to (a) and (b) above, namely:

c. do not supply respect to anyone who breaches a. and b.

Now consider the pay-off from deviation. If an individual does not supply respect to those who destroy goods they will receive no respect themselves, in which case there is no point in destroying any goods themselves. The pay-off from defection is then $\tilde{u}(y,0,0)$. Hence the rules of behaviour (a)-(c) are a Nash equilibrium if:

$$\tilde{u}(y-d,r,r) > \tilde{u}(y,0,0) \tag{14}$$

For a given value of r, we can always find a small enough value of d such that (14) is satisfied if mutual respect is demanded. The second-order punishment of those who do not abide by the rules requires that those who fail to supply respect to those who destroy goods can be observed – it is then perhaps no surprise that these inefficient arrangements tend to be public ceremonies.

Of course, there is no escaping the fact that the Nash equilibrium is inefficient and is sustained by second-order punishment of those who do not abide by the rules. All that is needed to move to an efficient equilibrium is for someone to propose an alternative arrangement (here, a reduction in d) and then everyone can agree that would be better for

all. But the first person who points out that the emperor has no clothes in this way, risks a potentially ruinous loss in respect unless everyone else expects reason to dominate.

We have offered an explanation for why a particular inefficient custom might persist but it should be obvious that we can use the demand for respect to sustain an infinite number of Nash equilibria. This is the explanation for the enormous cultural diversity we see around us. The argument that second-order rewards/punishments has the potential to sustain a very wide range of behaviours (both good and bad) is also contained in Boyd and Richerson (1992). Of course one can explain anything in this way but that is the point – the enormous cultural diversity we observe suggests a large number of equilibria. However, we would expect cultures with inefficient institutions not to prosper as much as others[14].

Let us now turn to the consideration of our own culture and the role played by respect in a modern economy. One question raised by the above discussion is whether our culture is better thought of as the 'rational society' or one in which inefficient equilibria are sustained by fear of social ostracism. It seems plausible to think that our society has become more anonymous and tolerant of those who choose to be different so let us imagine (perhaps complacently) that it is closer to the rational society[15]. But where are the transactions in respect to be found?

[14] Though one needs to recognize that the way in which one culture may prosper at the expense of another may involve violence so one should not assume that cultures that have successfully propagated themselves through history are 'better' than ones that have not.

[15] Though another consequence of greater anonymity is that information about individuals gets worse and the giving of respect may come to be based on signals that are correlated with actions that demand respect rather than the actions themselves – see Benabou and Tirole (2006) for one model along these lines.

4. Respect in a Modern Economy

In the model of a 'simple society' used in this paper, respect is exchanged directly for material goods. But, in modern economies almost all exchanges are for money in the first instance. The markets for physical goods are very obvious, but one might wonder where is the market for respect? There is certainly not a supermarket in which we directly purchase the approval of someone (though I am told that one can purchase such approval fairly directly by calling certain telephone numbers). From this absence of explicit markets for respect one might conclude that respect is not very important in the modern economy so can safely be ignored in economic analysis. One could argue (as has been done above) that donating money to charity is one way to buy respect but this represents such a small share of total expenditure that one would have to conclude that markets for respect were relatively unimportant if this was the only way to buy respect. But there are a number of reasons why such a conclusion might be too hasty.

First much respect is supplied and received, as it ever was, within the family and between friends where transfers of material resources are not mediated through markets.

Secondly, respect may be efficiently supplied and received bundled up with other goods and services. Respect is easiest to exchange in interactions between people but, in line with a model presented earlier the cost of an interaction is probably mostly a fixed cost and the marginal cost, once interacting, is small. But, once people are interacting one might as well use that interaction for some other productive purpose. Hence, we might expect to see transactions in respect wherever people are interacting.

The workplace is somewhere where people spend a lot of time and interact a lot with others. Hence we might expect a lot of exchange of respect within the workplace. It

is then no surprise to find discussions of gift relationships within the workplace (Akerlof 1982) – people are not just concerned with material things but with transactions in respect. Because we think that respect flows from low-income to high-income people in exchange for material resources we would then expect the wage to be above the marginal product for low-income people in firms and below the marginal product for high-income people.

But people interact with each other in product as well as labour markets so we might expect to see transactions in respect bundled up in the purchase of goods and services. When one stays in luxury hotel and part of the package is a set of very obsequious staff one is perhaps also purchasing their respect. So, 'customer service' may be the supply of respect between people – this can explain why the price differential of luxury goods often seem to be far in excess of the differential in the quality of service.

As in any sector, there are potential profits to be made by finding new ways of supplying the demand for respect. But the model presented so far is one in which respect can only be supplied and received by direct human-to-human contact. But, and here we enter the realms of wilder speculation, perhaps that is not necessary.

The demand for respect has at its heart the desire for others to think well of oneself. But we never know exactly what others think (though their words and actions may give us a good idea) so maybe what we derive satisfaction from is when we think others think well of us. In this case the demand for respect can be satisfied if we think that others have respect for us without necessarily them having to supply it directly.

The obvious problem with this is that, if this was the case, then we would seem to be able to increase our utility by thinking that others have a high impression of us even if

they do not. Ultimately it is ourselves who satisfy our own demand for respect. However, there are reasons why things are not so simple as total control over our thoughts would not increase evolutionary fitness.

Many may think this change a step too far. But before dismissing this idea out of hand, realize that it would buy us many things. We can explain why, in dictator games, people often choose to give money to others (they think this will make others, perhaps the person running the experiment, think well of us), why people tip in restaurants to which they never expect to return, perhaps even some aspects of religion (our actions are motivated by the desire for the approval of something that might not even exist). But what this means is that respect can be supplied at a distance. If there is any truth in this market for respects may be more pervasive than we think.

5. Conclusions

This paper has taken up Becker's (1974) observation that people care about what others think of them and analysed a general equilibrium economy if which people both demand and supply respect. In this view respect is 'bought' from others by the transfer of material goods to them. Some might find this a very cynical view that seems to say that generosity is really a selfish act as it is only undertaken when it benefits the giver. But, when we label someone who gives material goods to others as generous, that label is the flow of respect to that person and to fail to give the giver that label would be to jeopardize the transfer in the first place. Being aware that generosity is motivated by a demand for respect only makes us more likely to praise those who are generous only not so much as to make our respect be sold too cheaply.

Using this framework, the paper has shown how those with high levels of material resources will end up commanding more respect than others and that the distribution of consumption will be more equal than the distribution of income. It has argued that it is likely that society will be hierarchical with more people net suppliers than net demanders of respect. It has shown how a rising level of income increases the equilibrium price of respect and that 'respect' may become a less or more important part of society. It has argued that the demand for respect emerges from the beneficial effect of social insurance when insurance markets are absent. It has explained the enormous cultural diversity in the activities that command respect as a range of Nash equilibria sustained by second-order punishment or social ostracism for those who break the prescribed social norms. Finally, it has argued that transactions in respect can be typically be found in a modern economy bundled up with other transactions in product and labour markets because human interaction is necessary for them.

There are important research questions left unanswered by this paper. We need to think about better ways of deciding whether the marginal propensity to consume respect rises with income as a number of interesting comparative statics depend on this. We need to think about the activities in our own culture that command respect and whether this has changed significantly over time. We need to think about whether respect can be supplied at a distance or whether fairly direct human interaction continues to be as necessary today as it was in the past. And we need to think about how the undoubted imperfections in the market for respect alter the conclusions reached on the assumption of a perfectly competitive market.

Appendix

Proof of Result 1:

The equilibrium condition (6) can be written as:

$$\int_{y^*} r(p,y) f(y)\,dy + \int^{y^*} r(p,y) f(y)\,dy = 0 \tag{15}$$

where y^* is the cut-off income level at which net demands are zero so $r(p,y^*)=0$.

Integrating the two terms in (15) by parts we have that:

$$\int_{y^*} \frac{\partial r(p,y)}{\partial y}\left[1-F(y)\right]dy - \int^{y^*} \frac{\partial r(p,y)}{\partial y} F(y)\,dy = 0 \tag{16}$$

Now if $\dfrac{\partial r(p,y)}{\partial y}$ is non-decreasing in y we have that:

$$\int_{y^*} \frac{\partial r(p,y)}{\partial y}\left[1-F(y)\right]dy \geq \frac{\partial r(p,y^*)}{\partial y}\int_{y^*}\left[1-F(y)\right]dy \tag{17}$$

and that:

$$\int^{y^*} \frac{\partial r(p,y)}{\partial y} F(y)\,dy \leq \frac{\partial r(p,y^*)}{\partial y}\int^{y^*} F(y)\,dy \tag{18}$$

Combining (17), (18) and (16) we have that:

$$\int_{y^*}\left[1-F(y)\right]dy \leq \int^{y^*} F(y)\,dy \tag{19}$$

which can be written as:

$$E(y) = \int \left[1-F(y)\right]dy \leq \int^{y^*} dy = y^* \tag{20}$$

which proves the result. One can readily see that if $\frac{\partial r(p,y)}{\partial y}$ is strictly increasing in y for any set of y not of measure zero then at least one of the inequalities in (17) or (18) must be strict and this makes the inequality in (20) strict.

Proof of Result 4:

One can imagine the competitive equilibrium as having a price p(r) associated with buying respect at level r from an individual. A necessary condition for utility maximization is that, given the total utility from respect is to be r^d, this is obtained in the lowest cost way i.e. agents must solve the problem:

$$\min_{(N,r)} Np(r) \; s.t. \; N\phi(r) = r^d \tag{21}$$

where N is the number of people from whom respect is purchased and r is the purchase from each individual (I have assumed equal amounts are purchased from all but this follows straightforwardly). The minimization problem can be written as:

$$\min_r r^d \frac{p(r)}{\phi(r)} \tag{22}$$

so that the purchases of respect will all be at the level of r that minimizes (22) – this might not be unique.

On the supply side of the market a necessary condition for utility maximization is that, given the total respect supplied is to be r^d, this is 'sold' in a revenue maximizing way i.e. agents must solve the problem:

$$\max_{(N,r)} Np(r) \; s.t. \; N[C + c(r)] = r^s \tag{23}$$

where N is the number of people to whom respect is sold and r is the sale to each individual (I have assumed equal amounts are sold to all but this follows straightforwardly). The maximization problem can be written as:

$$\max_r \; r^s \frac{p(r)}{C + c(r)} \tag{24}$$

so that the purchases of respect will all be at the level of r that maximizes (22) – again this might not be unique. The r chosen by the two sides of the market must, in equilibrium, be equal so, putting together the two sides of the market we have that r must be chosen to maximize:

$$\frac{p(r)}{C + c(r)} \cdot \frac{\phi(r)}{p(r)} = \frac{\phi(r)}{C + c(r)} \tag{25}$$

Given the assumptions made, the solution to this is unique – let us denote it by r*. This could be derived more directly by thinking about the unit cost of providing r^d which must be minimized at the solution to (25).

If the price of getting r* supplied from an individual is p then the utility function can be written as:

$$\tilde{u}\left(y - pN^d + pN^s, N^d \phi(r^*), N^s \left[C + c(r^*)\right]\right) \tag{26}$$

which is the same generic form as in the simple model but with N interpreted as the amount of respect and p as the price of an optimal packet of respect.

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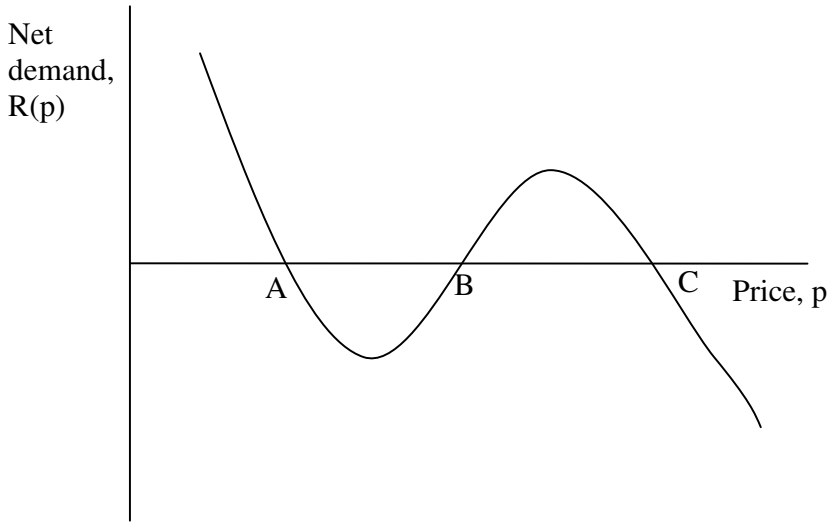
Table 1
The Share of expenditure on charity by expenditure band

Total Family Expenditure ($000)	% of Total Expenditure on Religious and Welfare Activities	Number of Families
<$10	1.42	8049
<$20	1.56	8396
<$30	1.93	6673
<$40	2.33	4402
<$50	2.51	2990
<$60	2.47	1813
<$70	2.69	1146
<$80	2.66	664
<$90	2.18	419
<$100	2.64	245
>=$100	5.54	509
Total	1.95	35306

Notes: Data is from US Consumer Expenditure, 2000-2003 inclusive using the NBER extracts. Attrition adjusted weights are used.

Figure 1



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