

# Justice Toward Another Rational Species:

The Division of Labor is Limited by the Extent of Sympathy

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October 10, 2001

Earlier versions were presented at the 18<sup>th</sup>-Century Scottish Studies Society, Arlington meeting in June 2001 and the Summer Institute for the Preservation of the History of Economics in Economics at George Mason in 2002. We benefitted from conversations with and comments from Gordon Schochet, Roger Emerson, Samuel Hollander and Silvia Sebastianiana. We remain responsible for the errors and omissions.

## Introduction

We propose to consider a hard problem posed by David Hume in his *Enquiry Concerning the Principles of Morals*. What would be the fate of a species of rational creatures who, strictly inferior in mind and body to humans, were in competition with us for resources? His answer is that though we were bound by the dictates of humanity for kindness, there would be no justice between us and them. Instead of trading for what we want, we would simply take. Not only that, but if this inferiority were not a fixed matter of mind and body, but instead simply a contingent matter of technology, again we would take and not trade. Hume sees no way to escape the conclusion as he points to how Europeans with advanced military technology behave with native peoples.

We propose to address this problem of other rational beings in relation to another of Hume's problems, the famous "Sensible Knave" problem from the closing pages of Hume's *Enquiry*.<sup>1</sup> Here Hume focuses exclusively on physical equals. In this context it is in the interest of everyone to have rules of justice which make trade possible, and it is in the interest of the "sensible knave" to violate the rules of justice now and again. Hume has two interesting and important things to say to attenuate the importance of the "sensible knave." One of these considerations is a moral one; today the other is called an evolutionary one. We shall ask (first) why in Hume's system these attenuations do not hold in the case of other rational beings. Second, we shall consider whether or not the

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<sup>1</sup>Gauthier (1979) is classic; Nielsen (1982) is pungent.

attenuations to the “sensible knave” which Hume allows might not be possible for the other rational beings in Adam Smith’s system.

As is well-known amongst specialists in the matter, Hume and Smith have interestingly different accounts of sympathy.<sup>2</sup> We shall argue that Smith’s wider construction of sympathy allows Hume’s moral attenuation to the sensible knave problem to be applied to the other rational species. We suggest that an enormously famous passage in *Moral Sentiments* be read as Smith’s answer to one form of the other rational species problem. Third, A. R. Wallace used the principle of sympathy in 1864 to explain why the considerations of “natural selection” do not apply to humans. As the eugenics movement arose as a negative result of Wallace’s argument – the eugenicists argued that “natural selection” ought to trump sympathy – we have insight into the relationship between a Smithian economics and a non-Smithian one in which eugenics triumphed (Peart-Levy 2002). In this triumph we see the “unfit” becoming “parasites” removed from sympathy. We repeat at the outset of our paper the very question with which Gilbert Harman closed a lecture fifteen years ago: if Smith’s ethical system is so much more supple than Hume’s

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<sup>2</sup>Harman (1986, p. 14): “There is an interesting irony in the way in which Hume’s use of the term ‘sympathy’ leads Smith to his own very different theory, a theory that in my view is much better than Hume’s at accounting for moral phenomenology. Smith’s criticism of Hume’s use of the term ‘sympathy’ is not a serious one. It is of no importance whatsoever whether the meaning that Hume gives to the term ‘sympathy’ is the ordinary one. ... The irony is that taking Hume’s term seriously leads Smith to a more accurate account of morality. A purely verbal point yields a powerful substantive theory.”

why has it been so overshadowed?<sup>3</sup> Our issue of race is not unrelated.<sup>4</sup>The Sensible Knave

Here is Hume's own statement of the issue of the "sensible knave":

And though it is to be allowed that, without a regard to property no society could subsist; yet according to the imperfect way in which human affairs are conducted, a sensible knave, in particular incidents, may think that an act of iniquity or infidelity will make a considerable addition to his fortune, without causing any considerable breach in the social union and confederacy. That *honesty is the best policy*, may be a good general rule, but is liable to many exceptions; and he, it may perhaps be thought, conducts himself with most wisdom, who observes the general rule, and takes advantage of all the exceptions. (1998, 155)

To this Hume has two things to say. The first are moral considerations, considerations which in fact motivate people:

I must confess, that, if a man think, that this reasoning much requires an answer, it will be a little difficult to find any, which will to him appear satisfactory and convincing. If his heart rebel not against such pernicious maxims, if he feel no reluctance to the thoughts of villany and baseness, he has indeed lost a considerable motive to virtue; and we may expect, that his practice will be answerable to his speculation. (155)

In fact Hume believes that such moral motivations frequently trump pecuniary:

But in all ingenuous natures, the antipathy to treachery and roguery is too strong to be counterbalanced by any views of profit or pecuniary advantage. Inward peace of mind, consciousness of integrity, a satisfactory review of our own conduct; these

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<sup>3</sup>Harman (1986, p. 14): "Finally, it is perplexing that Adam Smith's ethics should be so relatively unread as compared to Hume's ethics when there is so much of value in Smith's. What I have talked about here only scratches the surface. Why should Smith's ethics be so neglected? Is it that Hume also had a metaphysics and an epistemology and that Smith did not? Or is it that Smith was a more important economist than Hume? Andy should that matter? I do not know."

<sup>4</sup>As a founder of the doctrine of separate creation (polygenesis) Hume's views of race have been discussed at length in the scholarly literature, Poliakov (1974, 175-77), Eze (1997), Sebastiani (2001). None of these careful students sees the importance of Adam Smith's doctrine that all there is to human choice is incentives, luck and history even though race-blind economics was the opponent which the 19<sup>th</sup>-century polygenesis thinkers attacked (Levy 2001b,c; Peart-Levy 2002, Levy-Peart 2001a,b)

are circumstances very requisite to happiness, and will be cherished and cultivated by every honest man, who feels the importance of them. (155-56)

This argument does not, of course, say that unjust acts are irrational; it does say that they are costly.

Continuing in a new paragraph there is another argument which does not appeal to the moral cost of profitable wickedness but takes instead the vantage point of an honest man viewing the behavior of the sensible knave:

Such a one has, besides, the frequent satisfaction of seeing knaves, with all their pretended cunning and abilities, betrayed by their own maxims; and while they purpose to cheat with moderation and secrecy, a tempting incident occurs, nature is frail, and they give into the snare; whence they can never extricate themselves, without a total loss of reputation, and the forfeiture of all future trust and confidence with mankind. (1998, 156)

Hume's "evolutionary" solution to the "sensible knave" is to point out that it is in fact rather difficult to be a "sensible" knave. What happens is that one simply becomes a knave, someone who routinely acts unjustly, and one acquires the reputation of a knave, so that one is betrayed by Hume's immoral maxim.

Looking at this argument from a modern game-theoretic point of view, he has made the leap from the classic game, in which one selects *decisions*, e.g., Trade or Grab, to the evolutionary game in which one selects *strategies* (Maynard Smith 1982). The symmetry of the "sensible knave" problem opens the door for consideration of repeated games, e.g., Axelrod 1984, Congleton-Vanberg 2001, in which a strategy is selected as the one which maximizes material income over some specified time horizon.

Characteristically, evolutionary accounts shy away from introducing considerations of time discounting as a complicating dimension. Although we have nothing to say to time discount, we shall consider another dimension, that of human sympathy, which evolutionary accounts neglect. This is not simply a matter of technical complication as we learn from the argument of the co-discoverer of the principle of natural selection: when sympathy enters, natural selection ends.

#### Another Rational Species

There are three variations on the “other rational species” problem as Hume’s states it. In his first statement Hume presents a case in which inferiority is a fact:

Were there a species of creatures, intermingled with men, which, though rational, were possessed of such inferior strength, both of body and mind, that they were incapable of all resistance, and could never, upon the highest provocation, make us feel the effects of their resentment; the necessary consequence, I think, is, that we should be bound, by the laws of humanity, to give gentle usage to these creatures, but should not properly speaking, lie under any restraint of justice with regard to them, nor could they possess any right or property, exclusively of such arbitrary lords. Our intercourse with them could not be called society, which supposes a degree of equality, but absolute command on the one side, and servile obedience on the other. Whatever we covet, they must instantly resign. Our permission is the only tenure, by which they hold their possessions: Our compassion and kindness the only check, by which they curb our lawless less: And as no inconvenience ever results from the exercise of a power, so firmly established in nature, the restraints of justice and property, being totally useless, would never have place in so unequal a confederacy. (1998, 88)

Hume sees no way out from this conclusion as he cites, in the first sentence of the next paragraph, evidence of the behavior of humans with regard to animals:

This is plainly the situation of men, with regard to animals; and how far

these may be said to possess reason, I leave it to others to determine. (88)<sup>5</sup>

In the next sentence Hume moves the argument from a *fact* of natural of racial superiority to a fact of European technological superiority which motivates a *belief* in racial superiority:

The great superiority of the civilized EUROPEANS above barbarous INDIANS, tempted us imagine ourselves on the same footing with regard to them, and made us throw off all restraints of justice, and even of humanity, in our treatment of them.” (89)

This we shall regard as the “Second form of the Other Rational Species” problem. There maybe no real difference other than technology. We sufficient power to do as we will.

And then Hume moves the argument to one across gender:

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<sup>5</sup>Is Hume being overly cute? We quote from the *Treatise*:: “We are conscious, that we ourselves, in adapting means to ends, are guided by reason and design, and that ‘tis not ignorantly nor casually we perform those actions, which tend to self-preservation, to the obtaining pleasure, and avoiding pain. When therefore we see other creatures, in millions of instances, perform like actions, and direct them to like ends, all our principles of reason and probability carry us with an invincible force to believe the existence of a like cause. ... The resemblance betwixt the actions of animals and those of men is so entirely in this respect, that the very first faction of the first animal we shall please to pitch on, will afford us an incontestable argument for the present doctrine.” (1978, 176).

There is an important argument in the economics literature about property and animals. Smith, importantly, denies emphatically that any “race” of animals other than people has contracts or property. This, as we document below is the first use of the term “race” in *Wealth of Nations*. Richard Whately would make the claim in 1831 that to exchange is to be human and that even government and justice (which co-determine property) are the result of exchange. Economists in the neoclassical period would sometimes take a different stance. Here is W. S. Jevons: “I should not despair of tracing the action of the postulates of political economy among some of the more intelligent classes of animals. Dogs certainly have strong though perhaps limited ideas of property, as you will soon discover if you interfere between a dog and his bone.” ( 1876, 176). A letter to his wife shows these were somewhat tongue in cheek: “I have managed to get through the lecture without any conspicuous failure. The attendance was poor, and there was no liveliness worth speaking of, and no other speeches, simply a lecture. The humorous attempts answered very well, except that about the dog's idea of property, which failed. I am glad the affair is over and not worse.” (1972-1981, 4: 182).

In many nations, the female sex are reduced to like slavery, and are rendered incapable of all property, in opposition to their lordly masters. But though the males, when united, have, in all countries, bodily force sufficient to maintain this severe tyranny: yet such are the insinuation, address, and charms of their fair companions, that women are commonly able to break the confederacy, and share with the other sex in all the rights and privileges of society. (89)

We set aside the gender issue, the third form of the problem, because Hume sees that the outcome here need not be the same as the outcome in the other two cases.

There is something very disturbing about Hume's conclusion. This surely is partly responsible for Thomas Reid's attack who saw Hume's argument as a claim that "right" comes from might, and who thought this simply demonstrated that Hume was a follower of Thomas Hobbes.<sup>6</sup> This suggests that Reid did not move past the "thought experiment" of the First Form of the Problem to the practical second form in which racial superiority is only a belief by those with superior technology.<sup>7</sup>

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<sup>6</sup>"If Mr HUME had not owned this sentiment as a consequence of his Theory of Morals, I should have thought it every uncharitable to impute it to him. However, we may judge of the Theory of its avowed consequence. For there cannot be better evidence, that a theory of morals, or any particular virtue, is false, than when it subverts the practical rules of morals. This defenceless species of rational creatures, is doomed by Mr. HUME to have no rights. Why? Because they no power to defend themselves. Is not this to say, That right has its origin from power; which, indeed, was the doctrine of Mr. HOBBS. And to illustrate this doctrine, Mr HUME adds, That as no inconvenience ever results from the exercise of a power, so firmly established in nature, the restraints of justice and property being totally useless, could never have place in so unequal a confederacy; and, to the same purpose, he says, that the female part of our own species, owe the share they have in the rights of society, to the power which their address and their charms give them. If this be sound morals, Mr HUME'S Theory of Justice may be true." Reid (1788, 437-38).

<sup>7</sup>For Hobbes right cannot be a simple matter of strength since all men are more or less equally strong: "Nature hath made men so equall, in the faculties of body, and mind; as that though there bee found one man sometimes manifestly stronger in body, or of quicker mind then another; yet when all is reckoned together, the difference between man, and man, is not so considerable, as that one man can thereupon claim to himself any benefit, to which another man not pretend, as well as he. For as the strength of body, the weakest has strength enough to kill the strongest, either by secret machination, or by

## The Division of Labor is Limited by the Extent of Sympathy

We propose to consider whether or not Smith's doctrine that exchange is based in something akin to reason and speech is an answer to Hume's denial of the possibility of exchange between the weaker and the stronger. If justice follows exchange and exchange follows reason and speech then is Hume not answered?<sup>8</sup>

One of the foundational differences between Hume's system and Smith's is that for Hume sympathy requires entering into the minds of others. Thus, in Book II, ch. xi ("Love of fame") of the *Treatise*, Hume develops our ability to sympathize from physical and intellectual similarity among people:

Now 'tis obvious, that nature has preserv'd a great resemblance among all human creatures, and that we never remark any passion or principle in others, of which, in some degree or other, we may not find a parallel in ourselves. The case is the same with the fabric of mind, as with that of the body. .. *This resemblance must*

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confederacy with others, that are in the same danger with himself. (Hobbes 1968, 183).

And behind Hobbes there is Francis Bacon who emphasizes that the differences amongst peoples imply different access to technology: "Again, let a man only consider what a difference there is between the life of men in the most civilized province of Europe, and the wildest and most barbarous districts of New India; he will feel it be great enough to justify the saying that "man is a god to man", not only in regard to aid and benefit, but also by a comparison of condition. And this difference comes not from social, not from climate, *not from race*, but from the arts.

Again, it is well to observe the force and virtue of consequences of discovery, and these are to be seen nowhere more conspicuously than in those three which were unknown to the ancients, and of which the origin, though recent, is obscure and inglorious; namely, printing, gunpowder, and the magnet. For these three have changed the whole face and state of things throughout the world." (Bacon 1965, 373).

<sup>8</sup>"Whenever commerce is introduced into a country, probity and punctuality always accompany it. These virtues in a rude and barbarous country are almost unknown. Of all the nations in Europe, the Dutch, the most commercial, are the most faithful to their word. The English are more so than the Scotch, but much inferior to the Dutch, and in the remote parts of this country they [are] far less so than in the commercial parts of it. This is not all to be imputed to national character, as some pretend." (1978, 538). It is worthy of note that Hume's notorious statement of Negro inferiority is found in his essay on "national characters."

*very much contribute to make us enter into the sentiments of others, and embrace them with facility and pleasure.* The stronger the relation is betwixt ourselves any object, the more easily does the imagination make the transition, and convey to the related idea the vivacity of conception, with which we always form the idea of our own person. (1978, 38 emphasis added)

The sentence we emphasize is at basis the critical difference between Hume and Smith in their accounts of sympathy as Hume himself pointed out in a famous letter to Smith. In Hume' system when we sympathize, we share feelings.<sup>9</sup>

We enter in the passions of others for Hume, and we can do so because these people think and look like us.<sup>10</sup> In Smith, sympathy is something akin to an estimation procedure in which we imaginatively exchange positions while preserving our consciousness. (Levy 1995) Thus, in Smith's account we can even sympathize with the dead and the insane. Without reflection and education, we may very well get bizarre results – in Smith's example we think the problem of death is the cold, lonely grave and

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<sup>9</sup>Hume's letter of 28 July 1759 in Smith (1977, 43): "I am told that you are preparing a new Edition, and propose to make some Additions and Alternations, in order to obviate Objections. I shall use the Freedom to propose one, which, it it appears to be of any Weight, you may have in your Eye. I wish you had more particularly and fully prov'd, that all kinds of Sympathy are necessarily Agreeable. This is the Hinge of your system ... And indeed, as the Sympathetical Passion is a reflex Image of the principal, it must partake of its Qualities, and so be painful where that is so." Lindgren (1974, 21-22): "The doctrine of sympathy is typically thought to be simple and straightforward. The most popular interpretation is that sympathy is the same as empathy. ... First, were sympathy merely empathy it would be same as approval. This view, first suggested by David Hume (letter to Smith, July 28, 1759), was rejected in a note added by Smith to the third [second] edition of the *Moral Sentiments*."

<sup>10</sup>Schochet (2001) argues that the difference between Hume's and Smith's use of "sympathy" marks the transition from an older to a new use. "Sympathy" had traditionally be associated with musical vibrations where physical similarity was important for generating mutual vibration. Musical theory and renaissance magic are connected in Walker (1975). A glance at the indices in Thorndike (1923-58) reveals hundreds of references to "sympathetic magic" and "sympathy."

the gnawing vermin – but we sympathize nonetheless. And we can learn that the problem of death is really the “awful futurity.”

If sympathy forms the building blocks of moral consciousness, then the “moral” answer which Hume gave to the “sensible knave” can hold in the “other rational race.”<sup>11</sup> What about the “evolutionary” answer? To these questions we now turn.

#### Katallactic Rationality, Trade & Race

Although various technical methods have been adopted for disguising the problem, there is an obvious prisoner’s dilemma in the attempt to explain trade.<sup>12</sup> While it is in the interest of the traders considered together to trade, it is in an individual’s interest to grab. To consider the Other Rational Race problem in which Hume’s moral and evolutionary attenuations may hold, we pose the problem as a one-shot Prisoner’s Dilemma game in which each player can trade, or grab.

Adam Smith famously supposed that language is a necessary condition for trade. Dogs do not trade because they do not have a language in which to express the concept of “fair.” Without language there is no contract and no exchange (Levy 1992, Levy-Peart

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<sup>11</sup>Does not this mean that “race” is “occupation”? That is indeed one of Smith’s uses of “race” as the appendix below demonstrates.

<sup>12</sup>Ali Khan has explained to us that general equilibrium theory characteristically assumes the principle of “individual rationality” by which is meant that an individual will not move down indifference curves. Of course an individual does not *want* to move down indifference curves. The question is whether sufficient social rationality, i.e., the existence of property rights and the like, keep this from happening. In terms of the prisoner’s dilemma game, this blocks the off-diagonal elements and (of course) assumes that one would think needs to be proven. This discussion grew out of our participation in the Summer Institute for the History of Economics at George Mason University.

2001). To make Smith's case we suppose that individuals value approbation and that approbation is carried in language (Levy 1999). Since sympathy (and Approbation) are incommensurate with material wealth, our payoffs are two dimensional.

We are willing to defend the claim that by adding a moral dimension to foundational problem of social organization, we are putting back into the argument those classical insights which neoclassical economics influenced by the eugenics movement took out. The influence of eugenics on various aspects of neoclassical economics is clear (Peart-Levy 2002). We shall see below that the fact that human sympathy extends to the less capable is precisely what the eugenics movement objected to. Sympathy impedes the process of natural selection among humans and therefore, the eugenics thinkers argued, sympathy ought to be removed as a matter of social policy. Everything in the eugenics account collapses to the single dimension of material well-being as the natural selection argument was read as "survival of the fittest" where "fittest" was not what survived but the "best" in some objective, material sense. When dimensions of a model are removed, our analysis becomes fragile (Levy 1999/2000).

Approbation and disapprobation are acquired from the spectator in many ways. Following Smith in this context, we suppose that Approbation comes from reciprocity with others *like us*. In the light of the contrast between Smith and Hume outlined above, the phrase *like us* shall of course be important in the specification of the game below. We hold that Approbation is earned when reciprocity occurs (when both actors Trade, or

when both Grab); Disapprobation results when reciprocity does not pertain.

Prefatory to his section on justice and remorse (*TMS*, 82-91), Smith emphasizes reciprocity:

As every man doth, so shall it be done to him, and retaliation seems to be the great law which is dictated to us by Nature. (*TMS*, 82).

The norm of reciprocity is embodied in rules of justice, so Smith gives the disapprobation one feels from violating these rules great stress. In the next passage we quote, Smith describes how a moral agent — someone who has learned to view his past action with the gaze of a disinterested spectator — will view his past violations of the norms of justice:

The violator of the more sacred laws of justice can never reflect on the sentiments which mankind must entertain with regard to him, without feeling all the agonies of shame, and horror, and consternation. When his passion is gratified, and he begins to coolly to reflect on his past conduct, he can enter into none of the motives which influenced it. They appear now as detestable to him as they did always to other people. (*TMS*, 84).

Here Smith breaks apart one agent into intertemporal slices, and the past actor is judged by the present spectator who has inherited his skin. But since the present actor knows that his choice will be judged by a future spectator, he will take into account the future approbation/disapprobation which follow from his choice.

Thus, we sketch a “moral” approach to the prisoner’s dilemma – the introduction of approbation – and show that it can deal with the nonsymmetric situation of the other rational race. The evolutionary approach to the prisoner’s dilemma issues is to introduce repeated games and change from a selecting choices to selecting strategies. This is in

accord with Hume's own insight into the "sensible knave." We ratify Hume's intuition that this will not work for the other rational race problem.

We require a modest collection of logical symbols,  $\neg$  (not),  $\rightarrow$  (if ... then ...),  $\vee$  (inclusive or),  $\wedge$  (and). The states of the social world we denote by lower case letters in italics, thus,  $a, b, c \dots$ . In the case of certainty, we mark the material income at each state of the world,  $a, b, c \dots$ , as  $x(a), x(b), x(c)$  and similarly for approbation,  $A(a), A(b), A(c)$ .

When the choices involve probabilities, we suppose that we can define both expected material income and expected approbation. Economizing on parentheses, these are respectively  $Ex(a), Ex(b), Ex(c)$  and  $EA(a), EA(b), EA(c)$ . To minimize the employment of square brackets as statement separators, we employ the convention that the relation  $>$  binds more tightly than the logical operators  $\vee$  and  $\wedge$ .

A valuable piece of neo-classical notation,  $aPb$ , is sometimes read as a hypothetical assertion that if a decision maker were given a choice between  $a$  and  $b$ ,  $a$  would be chosen. Here,  $aPb$  is used in a revealed preference sense, meaning that we observe an individual selecting  $a$  when  $b$  is observed to be feasible. We have no access to subject states so it is our responsibility to specify why this choice was made. What imputation is reasonable? The necessary condition of katalactic rationality [= KR] we require is that one does not turn down a bundle with both more expected material income and more expected approbation. Thus:

$$aPb \rightarrow [Ex(a) > Ex(b) \vee EA(a) > EA(b)].$$

The left-hand side of  $\rightarrow$  is an observed choice; the right-hand side is something which we can go out and measure. KR requires only that if  $a$  is chosen over  $b$  there cannot be more of both material income and approbation at  $b$  than  $a$ .

How does this relate to neo-classical assumptions? The relation is very straightforward: a choice is KR if it does not violate the weak revealed preference axiom that more is preferred to less. A bundle is KR if there isn't any other bundle which dominates it in the space of *both* material income and approbation.

As noted above, Smith claims that a reciprocity norm is central to the social order. The traditional prisoner's dilemma logic makes it easy to operationalize such a reciprocity norm: if there are two choices confronting each of two individuals, no less approbation is earned when their strategies match — the diagonal elements of the prisoner's dilemma — than when their strategies do not match — the off-diagonal elements. We let  $A_1$  be the approbation from reciprocal strategies and  $A_0$  be the approbation from non-reciprocal strategies and we require that  $A_1 \geq A_0$ .<sup>13</sup>

The condition that  $A_1 = A_0$  — which we allow — corresponds to the case where approbation is not in fact part of the game. We suppose that this condition occurs when the agents regard themselves of different and unconnected races. If you are a dog and I am cat, I hardly care about your opinion of me. The condition of  $A_1 > A_0$  corresponds to

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<sup>13</sup>It is straightforward to add the case of *three* level of approbation where the approbation differs in the diagonal elements, e.g. the approbation from both trading is higher than the approbation from both grabbing. This specification would be a natural way to handle the complication that approbation is sensitive to income so that the higher income from co-operation brings with it higher approbation.

the case where approbation is earned by, and only by, the relation between one's play and that of the other players. We suppose that this condition comes when the agents regard themselves in the same race.

As is commonplace, we consider two individuals with each of two strategies: "Trade" or "Grab." We depart from the convention by adding the approbation from the spectator's judgment produced by a reciprocity norm.<sup>14</sup>

<b>Matrix 1: Prisoner's Dilemma</b>		
<b>Material Income and Approbation</b>		
	Column Trade	Column Grab
Row Trade	$(3, A_1), (3, A_1)$	$(1, A_0), (4, A_0)$
Row Grab	$(4, A_0), (1, A_0)$	$(2, A_1), (2, A_1)$

Matrix 1 contains the familiar prisoner's dilemma where the usual facts of income from various decisions are supplemented by the approbation one obtains from following a norm of reciprocity. Thus, if both players Trade then both will receive 3 units of income and  $A_1$  of approbation. If both players Grab then although their income falls to 2 each, the approbation is unchanged because they have acted in accord with the reciprocity norm.

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<sup>14</sup>The internalization of reciprocity means that monitoring issues are automatically solved.

However, in the off-diagonal cells, the reciprocity norm is violated and both parties are judged harshly. While the one who Grabs might be judged a “ruffian,” the one who continues to Trade is judged a “sucker.”<sup>15</sup>

Is KR satisfied by the two strategies? The game being symmetric, we need only consider one player. Let us suppose that the player believes that the probability of his partner “Trading” is  $p$  and that he is well-enough informed to believe that the probability of “Grabbing” is therefore  $1-p$ . We can solve for his expected income and the expected approbation of the two strategies:

$$\text{Ex(Trade)} = p \cdot 3 + (1-p) \cdot 1; \text{EA(Trade)} = p \cdot A_1 + (1-p) \cdot A_0.$$

$$\text{Ex(Grab)} = p \cdot 4 + (1-p) \cdot 2; \text{EA(Grab)} = p \cdot A_0 + (1-p) \cdot A_1.$$

There are two interesting cases —  $A_1 = A_0$  and  $A_1 > A_0$  — which we consider in turn.

**Case 1.  $A_1 = A_0$ .** For any  $p$ ,  $0 \leq p \leq 1$ , only Grab satisfies KR. Grab always has more expected income and never has any less approbation than Trade, so it satisfies KR. And, importantly, Trade does not. Thus, dogs who cannot provide approbation in their dealings with strange dogs cannot trade. Nor, by this argument, will people who find themselves in a prisoner’s dilemma situation where they cannot exchange approbation. Of course, in an experimental context, it might take subjects time to realize that this is how the game works.

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<sup>15</sup>This argument supposes that the income gain from moving from (in our notation) 3 to 4 is not large enough to move one up social ranks. If this rank increase were to happen then the approbation from the gain in income might well cover the loss in approbation from the violation of the reciprocity norm. It is a grim proverb of statecraft that treason never prospers because if it does “none dare call it treason.”

This result is entirely unsurprising. Once we eliminate the possibility that approbation has anything to do with reciprocity, we collapse the game to the neo-classical commonplace and from the collapse, we obtain the canonical result. Without approbation exchange there is no trade.

**Case 2.  $A_1 > A_0$ .** For any  $p$ ,  $0 \leq p \leq 1$ , Grab satisfies KR since Grab always has more expected income than Trade. What about Trade? Consider the case of  $p=1$ ; one actor is sure that the other actor will Trade. In this situation Trade is also KR: Trade obtains more expected approbation than Grab because by assumption  $A_1 > A_0$ . To expand the range of KR for all non-zero  $p$ , all that needs to be done is to increase  $A_1 / A_0$  appropriately. Trade is possible because approbation can offset material income. Of course at  $p=0$  Grab will remain uniquely KR.

To consider Hume's other rational race problem we suppose that it is common knowledge that only one player can obtain more material income by grabbing. Since one player is physically and intellectually inferior than the other it cannot grab, nor make a credible threat to grab, from the stronger. The column player can either trade or grab, but the row player can only offer to co-operate. If the game were restricted to material income then obviously the column player would grab. However, with approbation the game changes. If approbation comes from reciprocity – as above – then the offer to trade is KR for the reason given above.

<b>Matrix 2: Other Rational Race</b>		
<b>Material Income and Approbation</b>		
	Column Trade	Column Grab
Row Trade	$(3, A_1), (3, A_1)$	$(1, A_0), (4, A_0)$
Row Grab	–	–

So what does the other rational race do for us? If we believe that we are “a man and a brother” then the offer to trade with the other rational race is a way by which we earn approbation. We become moral agents. Thus Smith’s wide notion of sympathy – whereby physical and intellectual differences might be overcome – makes it rational to enter into market relationships with the weaker race, to treat them as equals.

The symmetry in Matrix 1 offers material gains for “long run” trade; the asymmetry in Matrix 2 offers none. All there is in Matrix 2 is moral motivation. Of course, if there the only difference between the column and the row player is technology, this moral belief might well turn Matrix 2 into Matrix 1. Believing in equality might make it so.

Smith’s on Another Rational Race

We have argue from the pieces of Smith’s system that he would give a different answer to Hume’s other rational species than Hume himself. The pieces we find suggest a willingness to pay material income to satisfy moral obligation. There is of course a famous argument in *Theory of Moral Sentiments* in which makes this precise case. Here is Smith’s

statement which states a strong form of the second of Hume's other rational species problem. First consider a man and a distant race. Distant people are really nothing to him although he might pretend otherwise:

Let us suppose that the great empire of *China*, with all its myriads of inhabitants, was suddenly swallowed up by an earthquake, and let us consider how a man of humanity in Europe, who had no sort of connexion with that part of the world, would be affected upon receiving intelligence of this dreadful calamity. He would, I imagine, first of all, express very strongly his sorrow for the misfortune of that unhappy people, he would make many melancholy reflections upon the precariousness of human life, and the vanity of all the labours of man, which could thus be annihilated in a moment. He would too, perhaps, if he was a man of speculation, enter into many reasonings concerning the effects which this disaster might produce upon the commerce of Europe, and the trade and business of the world in general. And when all this fine philosophy was over, when all these humane sentiments had been once fairly expressed, he would pursue his business or his pleasure, take his repose or his diversion, with the same ease and tranquillity, as if no such accident had happened. The most frivolous disaster which could befall himself would occasion a more real disturbance. If he was to lose his little finger to-morrow, he would not sleep to-night; but, provided he never saw them, he will snore with the most profound security over the ruin of a hundred millions of his brethren, and the destruction of that immense multitude seems plainly an object less interesting to him, than this paltry misfortune of his own. (*TMS*, 136-37)

Would he therefore act on this interest? This is the Second form of Hume's Other Rational Species problem. We hold another species in our hand. Will we pay something to save them? Smith's answer echoes across the century:

To prevent, therefore, this paltry misfortune to himself, would a man of humanity be willing to sacrifice the lives of a hundred millions of his brethren, provided he had never seen them? Human nature startles with horror at the thought, and the world, in its greatest depravity and corruption, never produced such a villain as could be capable of entertaining it. (*TMS*, 137)

It has been insufficiently noticed how Smith's own answer to the Second Form of Hume's

Other Rational Race problem Smith choose to take a illustrating the conclusion of his system:

But what makes this difference? When our passive feelings are almost always so sordid and so selfish, how comes it that our active principles should often be so generous and so noble? When we are always so much more deeply affected by whatever concerns ourselves, than by whatever concerns other men; what is it which prompts the generous, upon all occasions, and the mean upon many, to sacrifice their own interests to the greater interests of others? It is not the soft power of humanity, it is not that feeble spark of benevolence which Nature has lighted up in the human heart, that is thus capable of counteracting the strongest impulses of self-love. It is a stronger power, a more forcible motive, which exerts itself upon such occasions. It is reason, principle, conscience, the inhabitant of the breast, the man within, the great judge and arbiter of our conduct. It is he who, whenever we are about to act so as to affect the happiness of others, calls to us, with a voice capable of astonishing the most presumptuous of our passions, that we are but one of the multitude, in no respect better than any other in it; and that when we prefer ourselves so shamefully and so blindly to others, we become the proper objects of resentment, abhorrence, and execration. It is from him only that we learn the real littleness of ourselves, and of whatever relates to ourselves, and the natural misrepresentations of self-love can be corrected only by the eye of this impartial spectator. It is he who shows us the propriety of generosity and the deformity of injustice; the propriety of resigning the greatest interests of our own, for the yet greater interests of others, and the deformity of doing the smallest injury to another, in order to obtain the greatest benefit to ourselves. It is not the love of our neighbour, it is not the love of mankind, which upon many occasions prompts us to the practice of those divine virtues. It is a stronger love, a more powerful affection, which generally takes place upon such occasions; the love of what is honourable and noble, of the grandeur, and dignity, and superiority of our own characters. (*TMS*, 137)

For Smith, people's revealed preference paints a more pleasant picture of human nature than what we know of their interior life.

#### Sympathy in the 19<sup>th</sup> Century Evolutionary Biology

Scholars who think about the "Adam Smith Problem" puzzle over where Smith's

sympathetic principle goes in the 19<sup>th</sup> century. They do not consider how it affected evolutionary biology (Peters-Fransen 2001).

The earliest instance we know of the principle is found in Erasmus Darwin's 1803

*Temple of Nature*:

“How Love and Sympathy the bosom warm,  
Allure with pleasure, and with pain alarm,  
With soft affections weave the social plan,  
And charm the listening Savage into Man.” (1978, Canto I:219-223)

In a note to Canto III:466 Darwin adds:

From our aptitude to imitation arises which is generally understood by the word sympathy, so well explained by Dr. Smith of Glasgow (1978, pp. 122-23).

In 1864 A. R. Wallace claimed that natural selection did not apply to humans because of sympathy, morality and the division of labor.

If a herbivorous animal is a little sick and has not fed well for a day or two, and the herd is then pursued by a beast of prey, our poor invalid inevitably falls a victim. So in a carnivorous animal the least deficiency of vigour prevents its capturing food, and it soon dies of starvation. There is, as a general rule, no mutual assistance between adults, which enables them to tide over a period of sickness. Neither is there any division of labour; each must fulfill *all* the conditions of its existence, and, therefore, “natural selection” keeps all up to a pretty uniform standard.

But in man, as we now behold him, this is different. He is social and sympathetic. In the rudest tribes the sick are assisted at least with food; less robust health and vigour than the average does not entail death. ... Some division of labour takes place ... The action of natural selection is therefore checked ...” (1864, p. clxii).

Huxley is explicit in his use of the sympathetic principle for evolutionary explanations:

An artificial personality, the “man within,” as Adam Smith calls conscience, is built up beside the natural personality. He is the watchman of society, charged to restrain the anti-social tendencies of the natural man within the limits requires by social welfare. (1934, p. 88).

It is important to recognize that Wallace’s demonstration that natural selection stops at the edge of sympathy is the beginning of the eugenics movement! (Peart-Levy 2002). The eugenicists used Hume’s dimensions of inferiority – physical and intellectual – and the debate that followed focused largely on what it was to be “feeble and unfit.”<sup>16</sup> (Carlson 2001) Much of the eugenics rhetoric was an attempt to show that the “unfit” were a breed apart, and therefore undeserving of sympathy. Here is the co-founder of eugenics, W.R. Greg’s, description of the Irish, who for all intents and purposes, were sub-human relative to their human counterpart, the Scots:

The careless, squalid, unambitious Irishman, fed on potatoes, living in a pig-stye, doting on a superstition, multiply like rabbits or ephemera: – the frugal, foreseeing, self-respecting, ambitious Scot, stern in his morality, spiritual in his faith, sagacious and disciplined in his intelligence, passes his best years in struggle and in celibacy, marries late, and leaves few behind (Greg 1868, p. 360; quoted in Darwin, 1989, p. 143).

In later years, the eugenics movement would focus on families of criminals (the Jewkes) to make the case that sympathy stops at the door of the unfit.<sup>17</sup>

It is also significant that the second pillar of eugenic thinking was that the unfit

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<sup>16</sup>Marshall (1890, p. 201): “Thus there are increasing reasons for fearing, that while the progress of medical science and sanitation is saving from death a continually increasing number of the children of those who are feeble physically and mentally; ...”

<sup>17</sup>Reid (1906, p. 22): “certain types of men are unfit for existence under civilised conditions of life ...” The literature is reviewed in some detail in Peart-Levy 2002.

lacked the capacity for reason and the ability to control their impulses. Thus, the “unfit” were unable to participate in the market. Here again the co-founder of the movement, Greg, on whether the Irish are capable of being peasant proprietors:

‘Make them peasant-proprietors,’ says Mr. Mill. But Mr. Mill forgets that, till you change the character of the Irish cottier, peasant-proprietorship would work no miracles. He would fall behind the instalments of his purchase-money, and would be called upon to surrender his farm. He would often neglect it in idleness, ignorance, jollity and drink, get into debt, and have to sell his property to the newest owner of a great estate. ... In two generations Ireland would again be England’s difficulty, come back upon her in an aggravated form. Mr. Mill never deigns to consider that an Irishman is an Irishman, and not an average human being – an idiomatic and idiosyncratic, not an abstract, man. Greg (1868, p. 78).

#### Conclusion: Eugenics and Human “Parasities”

In the disagreement between Hume and Smith, we can how the later eugenics argument would play out. The “unfit” were held to be human “parasites” whose removal was needed if the human was to save himself, Carlson (2001, pp. 188-89).<sup>18</sup> Here are some illustrative quotations from economists of note.

The first, from Sidney Webb, argues that *laissez faire* in the biological sense means the “survival of the lowest parasite”:

The question, who is to survive, is determined by the conditions of the struggle, the rules of the ring. Where the rules of the ring favour a low type, the low type will survive and *vice versa*. The survivors of an unregulated epidemic of scarlet fever or typhus may owe their escape to constitutional

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<sup>18</sup>The “parasite” under many guises – the “Jew harpy,” the Irish/Jamaican “cannibal,” the economic/evangelical “canter” – plays a much neglected work in paternalistic theorizing. Levy 2001 is unhelpful on this as he takes a dismissive attitude on paternalism; Levy-Pearl (2001 & 2002) is a corrective.

peculiarities which are otherwise perfectly valueless, and which may even perhaps only be found amongst persons who, from every other point of view, we should call unfit. If, for example, it were possible for an epidemic of malarial fever to spread unchecked all over the United States of America it is highly probable that the whites would be eliminated and the blacks would survive. There is, indeed, always a general presumption that the unregulated, unpurposeful struggle will distinctly favour the less individually developed and more prolific organisms as against the more highly developed and less fertile. In short, the “survival of the fittest” in an environment unfavourable to progress may -- as everybody knows -- mean the survival of the lowest parasite. Webb 1910, pp. 236-7.

Webb endorsed the “social machinery” of eugenics and called for wide ranging intervention to prevent breeding by the unfit (pp. 237-8).

The second passage is from Irving Fisher, who maintains that the bottom portion of the genetic pool lives off the rest, in “social degeneration and gross parasitism”:

Similarly, the “tribe of Ishmael,” numbering 1,692 individuals in six generations, has produced 121 known prostitutes and has bred hundreds of petty thieves, vagrants, and murderers. The history of the tribe is a swiftly moving picture of social degeneration and gross parasitism, extending from its seventeenth-century convict ancestry to the present-day horde of wandering and criminal descendants. Fisher 1909, p. 675.

Those who we should murder, we first call “parasite”?

## Appendix: "Race" and "Species" in Smith

One difference between Smith and Hume is that for Smith, "race" is an endogenous distinction, something inside the division of labor. As an appendix we quote all the uses of the word "race" in the *Wealth of Nations* (Smith 2001a).<sup>19</sup> Here is his foundational account in the *Wealth of Nations* of how character is formed by the division of labor:

The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature as from habit, custom, and education. When they came into the world, and for the first six or eight years of their existence, they were, perhaps, very much alike, and neither their parents nor playfellows could perceive any remarkable difference. About that age, or soon after, they come to be employed in very different occupations. The difference of talents comes then to be taken notice of, and widens by degrees, till at last the vanity of the philosopher is willing to acknowledge scarce any resemblance. (1976, 28-9).

If we look at Smith's usage of "race" and "species" in *WN* we see that "race" is a term which Smith uses to distinguish types of animals – the "race of dogs" as against the "race of people" – and types of people by occupation – the "that unprosperous race of men commonly called men of the letters." Smith used "species" for humans only twice. One is that the masters of mankind believe that the middle class are akin to emancipated slaves and "thus" another "species" entirely.<sup>20</sup> Another is in reference to politicians.<sup>21</sup> This usage accords with Hume's statement that Europeans with superior technology view themselves as a species apart from natives.

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<sup>19</sup>The only use of "race" in *TMS* (Smith 2001b) comes in the phrase "In the **race** for wealth, and honours."

<sup>20</sup>Is this the origin of James Mill's model of government as a slave driver (Levy 2001a)?

<sup>21</sup>Debaters on Adam Smith's politics have not noticed this brutalization of the political. Perhaps the much derided "laissez-faire" reading of Smith could find evidence by systematic consideration of his word use.

## Appendix: "Race" in *Wealth of Nations*

B.I, Ch.2, I.2.2	<p>It is common to all men, and to be found in no other <b>race</b> of animals, which seem to know neither this nor any other species of contracts.</p> <p>In almost every other <b>race</b> of animals each individual, when it is grown up to maturity, is entirely independent,</p>
B.I, Ch.4, I.4.10	During the first <b>race</b> of the kings of France,
B.I, Ch.8, I.8.15	<p>A man must always live by his work, and his wages must at least be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family, and the <b>race</b> of such workmen could not last beyond the first generation</p>
B.I, Ch.8, I.8.25	The lowest class of labourers, therefore, notwithstanding their scanty subsistence, must some way or another make shift to continue their <b>race</b> so far as to keep up their usual numbers.
B.I, Ch.8, I.8.40	The wages paid to journeymen and servants of every kind must be such as may enable them, one with another, to continue the <b>race</b> of journeymen and servants, according as the increasing, diminishing, or stationary demand of the society may happen to require.
B.I, Ch.10, I.10.93	That unprosperous <b>race</b> of men commonly called men of letters,
B.I, Ch.11, I.11.263	When this real wealth of the society becomes stationary, his wages are soon reduced to what is barely enough to enable him to bring up a family, or to continue the <b>race</b> of labourers
B.IV, Ch.1, IV.1.30	The French kings of the Merovingian <b>race</b> all had treasures
IV, Ch.7, IV.7.30	In this colony there are said to be more than six hundred thousand people, either Portuguese or descended from Portuguese, creoles, mulattoes, and a mixed <b>race</b> between Portuguese and Brazilians.

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## Appendix: "Race" in *Wealth of Nations*

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B.IV, Ch.7, IV.7.36	The French colony of St. Domingo was established by pirates and free-booters, who, for a long time, neither required the protection, nor acknowledged the authority of France; and when that <b>race</b> of banditti became so far citizens as to acknowledge this authority, it was for a long time necessary to exercise it with very great gentleness.
B.IV, Ch.7, IV.7.42	All of them, besides, are oppressed with a numerous <b>race</b> of mendicant friars, whose beggary being not only licensed but consecrated by religion, is a most grievous tax upon the poor people, who are most carefully taught that it is a duty to give, and a very great sin to refuse them their charity.
B.IV, Ch.7, IV.7.186	The Cape of Good Hope was inhabited by a <b>race</b> of people almost as barbarous and quite as incapable of defending themselves as the natives of America
B.V, Ch.1, V.1.53	There are no nations accordingly who abound more in families revered and honoured on account of their descent from a long <b>race</b> of great and illustrious ancestors
B.V, Ch.1, V.1.216	When Robert, the second prince of the Capetian <b>race</b> ....

## Appendix: “Species” in *Wealth of Nations*

B.I, Ch.1, I.1.5	secondly, to the saving of the time which is commonly lost in passing from one <b>species</b> of work to another
B.I, Ch.2, I.2.2	It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other <b>species</b> of contracts.
B.I, Ch.2, I.2.3	to cultivate and bring to perfection whatever talent or genius he may possess for that particular <b>species</b> of business passing from one <b>species</b> of work to another;
B.I, Ch.2, I.2.5	<p>Many tribes of animals acknowledged to be all of the same <b>species</b>, derive from nature a much more remarkable distinction of genius, than what, antecedent to custom and education, appears to take place among men.</p> <p>By nature a philosopher is not in genius and disposition half so different from a street porter, as a mastiff is from a greyhound, or a greyhound from a spaniel, or this last from a shepherd's dog. Those different tribes of animals, however, though all of the same <b>species</b>, are of scarce any use to one another.</p> <p>The effects of those different geniuses and talents, for want of the power or disposition to barter and exchange, cannot be brought into a common stock, and do not in the least contribute to the better accommodation and conveniency of the <b>species</b>.</p>
B.I, Ch.4, I.4.3	<b>species</b> of shells in some parts of the coast of India
B.I, Ch.6, I.6.2	If the one <b>species</b> of labour should be more severe than the other, some allowance will naturally be made for this superior hardship; and the produce of one hour's labour in the one way may frequently exchange for that of two hours labour in the other.
B.I, Ch.6, I.6.3	Or if the one <b>species</b> of labour requires an uncommon degree of dexterity and ingenuity

## Appendix: “Species” in *Wealth of Nations*

B.I, Ch.7, I.7.17	<p>the one <b>species</b> of industry which can be suited in any respect to the effectual demand;</p> <p>In the other <b>species</b> of industry, the produce of equal quantities of labour being always the same, or very nearly the same, it can be more exactly suited to the effectual demand.</p> <p>The price of the one <b>species</b> of commodities varies only with the variations in the demand</p>
B.I, Ch.8, I.8.14	the ordinary wages even of the lowest <b>species</b> of labour.
B.I, Ch.8, I.8.15	Mr. Cantillon seems, upon this account, to suppose that the lowest <b>species</b> of common labourers must every where earn at least double their own maintenance,
B.I, Ch.8, I.8.23	Nor in the present times is this increase principally owing to the continual importation of new inhabitants, but to the great multiplication of the <b>species</b> .
B.I, Ch.8, I.8.28	First, in almost every part of Great Britain there is a distinction, even in the lowest <b>species</b> of labour, between summer and winter wages
B.I, Ch.8, I.8.38	Every <b>species</b> of animals naturally multiplies in proportion to the means of their subsistence, and no <b>species</b> can ever multiply beyond it. But in civilized society it is only among the inferior ranks of people that the scantiness of subsistence can set limits to the further multiplication of the human <b>species</b> ; and it can do so in no other way than by destroying a great part of the children which their fruitful marriages produce.
B.I, Ch.8, I.8.43	Almost every class of artificers is subject to some peculiar infirmity occasioned by excessive application to their peculiar <b>species</b> of work.
B.I, Ch.10, I.10.11	The laws and customs of Europe, therefore, in order to qualify any person for exercising the one <b>species</b> of labour,
B.I, Ch.10, I.10.15	No <b>species</b> of skilled labour, however, seems more easy to learn than that of masons and bricklayers
B.I, Ch.10, I.10.35	Unwholesomeness is a <b>species</b> of disagreeableness, and its effects upon the wages of labour are to be ranked under that general head.
B.I, Ch.10, I.10.48	The demand for almost every different <b>species</b> of labour is sometimes greater and sometimes less than usual.

## Appendix: "Species" in *Wealth of Nations*

B.I, Ch.10, I.10.73	The government of towns corporate was altogether in the hands of traders and artificers; and it was the manifest interest of every particular class of them, to prevent the market from being over-stocked, as they commonly express it, with their own particular <b>species</b> of industry;
B.I, Ch.10, I.10.81	The stock accumulated in them comes in time to be so great, that it can no longer be employed with the ancient profit in that <b>species</b> of industry which is peculiar to them.
B.I, Ch.11, I.11.3	Kelp is a <b>species</b> of sea-weed_
B.I, Ch.11, I.11.16	But the relative values of those two different <b>species</b> of food, bread, and butcher's-meat, are very different in the different periods of agriculture
<b>B.I, Ch.11, I.11.37</b>	As an acre of land, therefore, will produce a much smaller quantity of the one <b>species</b> of food than of the other
B.I, Ch.11, I.11.37	this <b>species</b> of cultivation is at present in that country more profitable than any other. by reducing the profits of this <b>species</b> of cultivation below their natural proportion ...  The numerous hands employed in the one <b>species</b> of cultivation ...
B.I, Ch.11, I.11.58	The simplest <b>species</b> of cloathing, the skins of animals ...
B.I, Ch.11, I.11.219	those variations have not the same effect upon the price of the one <b>species</b> of commodities,
: B.I, Ch.11, I.11.219	by reducing the price of the most important <b>species</b> of small cattle ...
B.I, Ch.11, I.11.238	the real price of one <b>species</b> of food necessarily rises,
B.II, Ch.2, II.2.27	There are several different sorts of paper money; but the circulating notes of banks and bankers are the <b>species</b> which is best known, ...
B.II, Ch.2, II.2.67	advanced upon them than upon any other <b>species</b> of obligation
B.II, Ch.3, II.3.42	the one <b>species</b> of expence always betokens a more liberal or generous spirit than the other.  The latter <b>species</b> of expence,

## Appendix: “Species” in *Wealth of Nations*

B.II, Ch.4, II.4.17	The superior security of land, together with some other advantages which almost every-where attend upon this <b>species</b> of property,
B.III, Ch.2, III.2.8	This <b>species</b> of slavery still subsists in Russia, Poland, Hungary, Bohemia, Moravia, and other parts of Germany.
B.III, Ch.2, III.2.11	To the slave cultivators of ancient times gradually succeeded a <b>species</b> of farmers known at present in France by the name of Metayers.
B.III, Ch.2, III.2.12	as rendered this <b>species</b> of servitude altogether inconvenient,
B.III, Ch.2, III.2.13	It could never, however, be the interest even of this last <b>species</b> of cultivators to lay out ...  five parts out of six of the whole kingdom are said to be still occupied by this <b>species</b> of cultivators  This species of tenants still subsists in some parts of Scotland.
B.III, Ch.2, III.2.14	To this <b>species</b> of tenancy succeeded, though by very slow degrees, farmers ..
B.III, Ch.3, III.3.8	The lords despised the burghers, whom they considered not only as of a different order, but as a parcel of emancipated slaves, almost of a different <b>species</b> from themselves.
B.IV, Ch.1, IV.1.19	and in affording a <b>species</b> of household furniture as plate
B.IV, Ch.2, IV.2.2	this monopoly of the home-market frequently gives great encouragement to that particular <b>species</b> of industry which enjoys i
B.IV, Ch.2, IV.2.10	What is the <b>species</b> of domestic industry which his capital can employ
B.IV, Ch.2, IV.2.42	Let the same natural liberty of exercising what <b>species</b> of industry they pleas
B.IV, Ch.3, IV.3.29	The former pay in a <b>species</b> of money of which the intrinsic value is always the same, and exactly agreeable to the standard of their respective mints; the latter is a <b>species</b> of money
B.IV, Ch.7, IV.7.11	This <b>species</b> seems never to have been very numerous, and the dogs and cats of the Spaniards are said to have long ago almost entirely extirpated it,
B.IV, Ch.8,	production of, that particular <b>species</b> of butcher's meat
B.IV, Ch.8,	As the law, however, did not mean to encourage this <b>species</b> of trade,

## Appendix: “Species” in *Wealth of Nations*

B.IV, Ch.9, IV.9.26	By raising up too hastily one <b>species</b> of industry, it would depress another more valuable species of industry. By raising up too hastily a <b>species</b> of industry which only replaces the stock which employs it, together with the ordinary profit, it would depress a <b>species</b> of industry
B.IV, Ch.9, IV.9.30	We should not call a marriage barren or unproductive though it produced only a son and a daughter, to replace the father and mother, and though it did not increase the number of the human <b>species</b> ,
B.IV, Ch.9, IV.9.49	discourage that very <b>species</b> of industry which they mean to promote.  from supporting a more advantageous, to support a less advantageous <b>species</b> of industry. But still it really and in the end encourages that <b>species</b> of industry which it means to promote. Those agricultural systems, on the contrary, really and in the end discourage their own favourite <b>species</b> of industry.
B.IV, Ch.9, IV.9.50	every system which endeavours, either by extraordinary encouragements to draw towards a particular <b>species</b> of industry a greater share of the capital of the society than what would naturally go to it, or, by extraordinary restraints, force from a particular <b>species</b> of industry some share of the capital which would otherwise be employed in it,
B.V, Ch.1,	those two different <b>species</b> of military force.
B.V, Ch.1,	a <b>species</b> of warfare
B.V, Ch.1,	This is a <b>species</b> of instruction
B.V, Ch.1,	a very strict observation of that <b>species</b> of morals
B.V, Ch.1,	those <b>species</b> of rents
B.V, Ch.2,	this <b>species</b> of rent
B.V, Ch.2,	this <b>species</b> of land-tax.
B.V, Ch.2,	a <b>species</b> of revenue
B.V, Ch.2,	a certain <b>species</b> of stock
B.V, Ch.2, ARTICLE IV	Taxes which, it is intended, should fall indifferently upon every different <b>Species</b> of Revenue
B.V, Ch.2, V.2.138	very different <b>species</b> of revenue,
B.V, Ch.2, V.2.154	They fall indifferently upon every <b>species</b> of revenue,

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## Appendix: "Species" in *Wealth of Nations*

B.V, Ch.2, V.2.164	each <b>species</b> of goods
B.V, Ch.2,	a <b>species</b> of smuggling
B.V, Ch.2,	every different <b>species</b> of revenue
B.V, Ch.3,	one species of unproductive labour
B.V, Ch.3,	by a certain <b>species</b> of politician

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