

Reply to Sir Julian Huxley's Comments about my paper "Can Man
Control his Numbers" C.G. Darwin

- p.3 When I speak of roughly constant numbers, I am speaking mathematically with a feeling for numerical magnitudes. A mere doubling in two thousand years is to all intents constant as compared with a multiplication by five in two hundred years - rates of twenty-five to one.
- I have not verified Huxley's figures, but I may record that at the Rome Conference five years ago a figure 350 million was given for the year A.D.1. This would be more in accordance with my statement, but I would accept his figure without feeling it altered my point.
- I would think that there were actual decreases sometimes during all those centuries, for example at the time of the Black Death.
- p.4 I find myself in difficulty over this, because the word 'Evolution' really has two meanings. In the wide sense it refers to the whole process, but more narrowly to the idea of change, its original meaning. Heredity on the other hand implies a constant condition, the son being like his father. The principle of Evolution (the whole thing) is a balance between heredity (= constancy) and evolution (= change). If heredity is taken to mean strict modern genetical theory, of course I am using the word wrongly, but I see no reason why it must have this narrow technical meaning. I should think that my writing would make it clear I was not using it in that sense. Furthermore if I adopted 'evolution' instead, it might suggest change to the reader, which is exactly the opposite of my intention.
- I suppose I might have called it 'inheritance', but there would remain the ambiguity about 'evolution'.
- p.5 I accept the suggestion. I did mean simply modern genetical theory, including mutations, as should be clear from the previous sentence.
- p.8 My point is that I am trying to make a forecast, and that what I have called Nurture heredity, as illustrated in past history, is too fluky and unreliable to give any help. This makes me think - and I gather Huxley disagrees - that I must chiefly use Nature heredity, and I am recording my opinion that it will continue to have greater importance than the other, even if only because the other is so much a matter of unpredictable chance.

- p.9 1.9 Here again I think the criticism is that I have taken the word heredity to be not synonymous with modern genetic theory.
- p.9 end. This comment surprises me. Surely in even the most primitive society a parricide would have got into big trouble. And the breach of taboos was also disapproved. What are those things but crimes, that is antisocial actions.
- p.10 1.4 I should have thought that the grave-robberies of ancient Egypt would be bank-robberies as near as does not matter.
- p.10 1.13 I recognize that the dichotomy Nature, Nurture is not at all precise, but I think the two can be roughly separated, and I am claiming that Nature is more important. In this short paragraph I have tried to imply that I know the other view would be maintained by many people. The matter is well worth arguing, but in so far as my view is accepted that history shows how chancy the operation of Nurture has been, I stand by my view of the importance of Nature for making my forecast.
- p.10 end. This was a piece of clumsy writing, which I will emend in the final point. I put it in only incidentally, because in a general way the question of family size does arise in the subject, but I did not notice that this sentence comes so close to the previous one, that the two might be associated together, which was not my intention.
- p.11 1.18 Here the thought at the back of my mind was that Malthus had advocated sexual abstention to keep down population numbers. We now recognize that there is no hope that way; what does this mean but that the instinct is too strong. Before birth-control came in I would have thought that a couple who produced twelve children were more likely to leave off-spring than one with only two.
- p.12 1.6 Agreed, but I do not see the point of the criticism.
- p.12 1.15 I like my phrase as being more forceful. If one applies the point to the animal kingdom, it is a breach of the laws of nature and therefore is cheating. Thus if any unintelligent animal had by chance discovered and practised birth-control in some effective way, it would have become extinct.
- p.12 end to p.13 I disagree with this comment. I do not discriminate between an instinct and the wish which is its conscious

embodiment. Thus I include in the sexual instinct the wish for coitus, and I maintain that the wish for a family would be the conscious aspect of what I call the progenitive instinct.

p.16 1.1 This is a matter of degree, but I maintain that in the long run numbers will tell, especially against people of whom many will have had their energy sapped by too comfortable living.

p.17 1.15 I do not think the addition of the word "^{vn}Western" is worth making. I have carefully kept clear of all racial questions, and after all much of the colonial trouble has been due to the natives' wish for equality.