

24th. January, 1930.

Mr Marc J. Feldstein,
2173 Cumnington Road,
Cleveland, Ohio
U.S.A.

Dear Mr Feldstein,

Many thanks for sending me the abridged sketch of the per capita concept. I am answering it at once, for though I am at the moment quite exceptionally busy, I want to express to you how interesting I have found both the abstract itself and your preface and letter.

The book on Natural Selection should appear in about two months, as I am at present checking the index, the most tedious, and I hope, the last work I shall have to do to it. Only the first chapter concerns the development of Darwin's ideas and their consequences to current biological theory. Of the 12 chapters two are somewhat tough statistical examinations of the consequences of particulate inheritance, the rest should be easily readable by biologists. The last 5 chapters are on Man, a subject which is usually treated far too cursorily by genetical writers, and which is of special importance for selection theory since in this case only we know some-

thing of the vital statistics.

I have two criticisms to make of the per capita paper, which I make on the understanding that nothing short of perfection in logical statements will satisfy you. In making three classes (α , β , γ) it is not clear to me whether you are making two distinctions of kind, or one only, the class β being intermediate in degree. The contrast which I understand and which I think most valuable, is that between the complete one to one correspondence (α), giving a true distribution of individual cases, and the γ ratios expressing a quantitative character of the social organisation. Your example of β , motor-cars per head of population is certainly a mixture of these two. Private cars owned exclusively for pleasure might properly come under α . Cars used by motor-hire ^{bus} companies under γ ; and one is in some doubt about the cars of practising doctors, or firms of doctors, of hospitals and of business organisations.

The mere existence of a zero class does not strictly exclude the α category. An enumeration of the number of children born to women of 60 who have been married since they were twenty, would include a zero class belonging as properly to individuals as the first class of a Poisson series does. But if the women enumerated include a class married older than 45 the case, as you suggest, is

really different. There is at the later ages a class of legal and social marriages which are not biological matings. I should therefore lay less stress on the zero class save when, (and here I speak as an empiric) the frequency varies itself suggests or insists upon heterogeneity.

Secondly, I agree quite strongly with your critics that you ought to find some other words for the distinctions you draw that Consistency, Efficiency, Sufficiency, which you recognise as having been introduced in another sense. The distinctions which you are introducing are too good to be without a name, and one that is distinctive and unequivocal. The mean values (α) may be called Consistent, but not Efficient or Sufficient without an examination of the actual distribution. The γ values are quantitative physical measurements of a social organisation, but do not seem to me to be estimates of the parameters of any statistical population. This is one of the most important points which you have made clear, and which will I hope be assimilated (gradually, of course) by social students.

Now I have done my worst as you asked of me. Wishing you every success,

I remain,

Yours sincerely,