

April 22-29
Cripps'. Corner. First Row. Dawson.

Dear Fisher.

The question of free will has been running round and round in my head, ^{so} that I must try to get rid of it on paper.

I believe I said that science must be deterministic. Here I probably used the wrong word. Results may, however, be said to be determined if we know the antecedents. ^(what) We must assume it that like ~~the~~ previous events are followed by like subsequent events. I will substitute 'consequential' for 'deterministic'. In a consequential system we do not include causation in your sense.

Every action in life is based on the supposition that the universe is worked on a consequential system. ^{That} Statistical forecasts ^{are} being reliable means that future events will be correlated with existing events. Free will, in the sense of not being consequential, is ruled out.

This being granted, it follows that our actions and our genes are united by ~~a~~ a nexus, and that it is on this basis that the heredity of character works. If ~~the~~ ^{our} actions

had been different, ~~the~~^{our} genes would have been different.

Time may be an illusion. But if so we can best picture ^{such a} ~~that~~ state of things by regarding all things as taking place simultaneously. We must speak of past and future to separate the things which seem to us to take place in the past and in the future.

We know that we have a limited ~~power~~^{effect in} of altering all future events by our present actions; and, time being an illusion, there seems to be no reason why we should not ~~be able to~~^{attend} ~~alter~~ all past events in the same way. In this way a consequential system might be ^{conceived} ~~established~~, so I used to think, which admitted free will. But I did not see that this assumed at all events an intelligible connection between past and future events. Taking the ^{nexus} ~~relation~~ of past and future ^{as we see it}.

~~On the basis of such a system~~ I can conceive free will in regard to choice in marriage resulting in an alteration in the genes of future generations. But looking backwards, ^{And this is true!} ~~the system breaks down. Nevertheless it is no help~~ with regard to the majority of actions. To establish a scientific system of heredity in

No change in genes is
then possible by present-choice,
Common sense tells us.

combination with free will we must assume
an arbitrary ^{or insignificant} nexus between actions
and genes, and it is difficult to bring such
a purely arbitrary nexus within the realm
of science. But with ^{such} a nexus ~~of such a kind~~
and free will, a system which works ^{could} even be
conceived, however.

It is, rather a large order, for we shall
have to assume that our genes are
dependent on the free will actions, not only
of all our ancestors, but of all our descendants
for all time. If all free will actions are real
causes, each exerting a definite pull, the
existing universe must be the result of the
balance of all these pulls for all time.

Moreover it will be said that if we
admit free will, and ^{also} that there is a nexus
between our wills and our genes, it is obvious
that our best way of improving our genes is
by our wills. If we admit that our genes
would have been different had our ancestors
exercised their admitted powers of free
will differently, what is the answer to this?

My answer is that I agree that each
man should regard his own free will actions
as of the highest importance. But what has

been said so far does not indicate that our free will gives us any power whatever, to influence the free will actions of others, that is their moral actions. Their actions are correlated with their genes, and we have assumed no power of ^{affecting} immediately ~~affecting~~ ^{affect} their genes. We can alter the actions of others in so far as consequential on their surroundings, and thus affect the genes of future generations, and this we must certainly strive to do. If a free will action is a true cause, it is intouchable from outside, so to speak. It is no use trying to affect the free will actions of others. All this may be contradictory in some aspects (possibly), but that I cannot help.

Here it may be urged that we have assumed ~~as~~ a nexus between our actions and our genes which we cannot explain. Would it be any harder to assume a nexus between our actions and other people's genes? If so we could alter their heredity qualities and their ^{free will} actions by our own actions. All the world might be ruled by free will, and to it we should turn all our attention, letting selection go to the devil.

For the moment I don't see any very clear answer to this, if we stick to both a consequential system and free will.

Have I even put this problem before you? Your only knowledge of the universe, let it be assumed, is obtained by going to movies, and that the operator always turns the handle the wrong way. Could you work out an intelligible system of the universe? I used to think you could. Now I rather doubt it. It is a Newton who lived under these conditions, and who saw the apple rise with a jump from the ground, and slowly attach itself to a twig, what would he make of it? I suppose he would have to work out his system on the assumption that he knew where the apple would rise to. He could not work it out on a mere assumption of repulsion from the earth. This seems to me very nearly admitting that time is ^{not} reversible. ↑

This has made me wonder if in trying to predict the future and trying to work out the past, we do actually adopt a different method of reasoning. I rather think we do.

~~or non-reversible~~
And if time is not reversible, my suggested re-enactment of free will and a consequential system breaks down.

But is it, then is a real sequence of events.

We work from the present to the future. As to the past, we try to find out what has actually happened in the past, and work from that by analogy. Or we work by analogy from our theoretical forecasts as to the future.

I don't remember now exactly what you said about free will which made me take exception. My present memory only is that it gave me the feeling that you thought the problem an easy one, which was very like an impression you wished to give.

Now don't trouble to answer this.

Yours sincerely

Samuel Darwin
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