to another, the correlate of the one has the relation Q to the correlate of the other, and *vice versa*. A figure will make this

$$\begin{tikzcd} x \arrow[r, "P"] \arrow[d, "S"'] & y \arrow[d, "S"] \\ z \arrow[r, "Q"'] & w \end{tikzcd}$$

clearer. Let x and y be two terms having the relation P. Then there are to be two terms z, w, such that x has the relation S to z, y has the relation S to w, and z has the relation Q to w. If this happens with every pair of terms such as x and y, and if the converse happens with every pair of terms such as z and w, it is clear that for every instance in which the relation P holds there is a corresponding instance in which the relation Q holds, and *vice versa*; and this is what we desire to secure by our definition. We can eliminate some redundancies in the above sketch of a definition, by observing that, when the above conditions are realised, the relation P is the same as the relative product of S and Q and the converse of S, *i.e.* the P-step from x to y may be replaced by the succession of the S-step from x to z, the Q-step from z to w, and the backward S-step from w to y. Thus we may set up the following definitions :—

A relation S is said to be a "correlator" or an "ordinal correlator" of two relations P and Q if S is one-one, has the field of Q for its converse domain, and is such that P is the relative product of S and Q and the converse of S.

Two relations P and Q are said to be "similar," or to have "likeness," when there is at least one correlator of P and Q.

These definitions will be found to yield what we above decided to be necessary.

It will be found that, when two relations are similar, they share all properties which do not depend upon the actual terms in their fields. For instance, if one implies diversity, so does the other; if one is transitive, so is the other; if one is connected, so is the other. Hence if one is serial, so is the other. Again, if one is one-many or one-one, the other is one-many