

BIOLOGY AND WAR

than those that perished, so that there was no sifting. The indiscriminate elimination involved in thinning turnips with a hoe benefits the surviving individuals but it does not improve the race. The ~~only~~ result of the struggle for existence that is of direct evolutionary importance is discriminate elimination, where the presence or absence of a particular character determines survival, or, what comes to the same thing in the long run, determines relative success in producing and rearing progeny. For it must be understood that the process of selection is often very slow and even gentle in its operations.

(c) We must also notice the obstinate confusion of thought that selection in the struggle for existence must, automatically as it were, result in the survival of something desirable. What it results in is the survival (immediate or distant) of the relatively more fit to the conditions of life. It may work towards degeneration as well as towards progress, as is well illustrated by that evasion of the struggle for existence called parasitism—the door to which is always open. The liver fluke is 'fit' as well as the sheep, and the tapeworm is as well adapted to its inglorious lot as the lark at heaven's gate.

(d) But there is an even deeper misunderstanding. In spite of many protests, beginning with Darwin's, the idea of the struggle for existence has often been expressed in a narrow and wooden way. It is a fact of life much bigger and subtler than the words suggest, and we do well to bear in mind Darwin's proviso that the phrase was to be used 'in a large and metaphorical sense, including dependence of one being on another, and including (which is more important) not only the life of the individual, but success in leaving progeny'. The phrase is a shorthand formula, summing up a vast variety of strife and endeavour, of thrust and parry, of action and reaction.

What are the facts of the case? Living creatures are continually being confronted with overwhelming diffi-