

and always in idea could none of them exist as living parts without the others, they are different portions of one organized substance, and the consideration of the sense in which they are different, only the more impresses us with the impossibility of supposing such elements as would ordinarily produce one leaf, capable of producing, under any stimulus, many leaves standing in parallel planes, each containing all the parts of the one. But it may, perhaps, be thought that there is some other mode of representing this matter not liable to the preliminary objection here offered. Dr. Gray, who probably presents the subject as judiciously and plausibly as any one has done, and whose authority would justly go as far as mere authority ever can, is disposed to treat the question as one of fact, as if he said: it cannot be denied that examples occur of multiplication of organs opposite to one another in the flower which do not admit of explanation by their belonging to successive circles—these facts claim consideration whether we can explain them or not, but when stated, an explanation may be attempted—accordingly he begins by putting aside the theory to which my remarks above directly apply, in the words: “The name *dédoublement* of Duval, which has been translated *deduplication*, literally means *unlining*; the original hypothesis being, that the organs in question *unline*, or tend to separate into two or more layers, each having the same structure. We may employ the word *deduplication*, in the sense of the doubling or multiplication of the number of parts, without receiving this gratuitous hypothesis as to the nature of the process, which at best can well apply only to some special cases. The word *chorisis*, also proposed by Duval, does not involve any such assumption, and is accordingly to be preferred.” He adds, respecting transverse *chorisis*: “Some examples may be adduced before we essay to explain them.” I am myself disposed, nevertheless, to endeavour to understand and consider the theory proposed, and then try its application to the facts. These facts are certain phenomena in flowers which are, if possible, to be brought under general laws of structure. Is it certain that laws previously known do not apply to them? and if this must be admitted is the hypothesis called transverse *chorisis* the only possible one, and does it answer fully the requirements of the case? These questions we can only answer when we know what the hypothesis is—what supposition respecting the origin of the parts is adopted. That of Duval is quite intelligible, and in the case of collateral *chorisis* seems reasonable, applying well to some of