

THESIS.

Subject: Analysis, Synthesis;
Induction, Deduction.

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In the performance of any mechanical operation, from the lowest grade of animal life to the highest and most refined achievements of mankind, there has been, and must continue to be, some way or method of procedure. The primitive process is an Analytical one, by which is meant the separation of any thing into its constituent components, the object of which is to enable a person to become more perfect in the conclusions and assertions made in relation to the problem to be analyzed.

Analysis is the grand instrument in all the operations of the perceptive faculties; and of all the implements of science, it is the surest in the results which it attains. It is the key to knowledge in all departments. To obtain a clear understanding of numbers in arithmetic, it is necessary ^{to} divide and separate them so that the parts may be dealt with separately. This fact is of universal application; it is shown in a very transparent way in the study

of the sciences. To understand
the formation of the objects of
nature, such as rocks, trees,
etc., the scientist must em-
ploy the analytical process.

Now if this principle be
true of all things, it is true
also of the mind. The mind
must be analyzed as well
as the objects of nature. This
process deals more directly
with observations and general-
izations. Objects are placed be-
fore a child, and he sets about
to discover their similarities or
dissimilarities of form, size, color,

etc., and in so doing, he takes them singly, and thus gains an understanding of them.

True understanding is reached only through analytical aid; but were the power of analyzing to exist to the exclusion of all others, our knowledge would be of no practical benefit to us. He may be able to tear a clock to pieces, thereby gaining a knowledge of its constituent parts, but if we are unable to put it together again, the time and labor will be lost. The way in which to surmount this obstacle to gain

practicable knowledge, is by a method called Synthesis, which is a process of building what has been analyzed. It is an avowed and accepted fact that every modification of the mind is a complex-state, and the only way of overcoming the difficulties surrounding a clear understanding of it is to employ analysis first, then, after careful consideration, by the aid of the indispensable synthetical process view the parts in relation to one another, and to the whole of which they are concomitants.

Synthesis is a necessary successor to analysis, following closely in the rear, putting on the artistic finishing touches.

Both processes embrace the Comprehensive faculty; it would be impossible to comprehend an object if it were not for the effects produced by analysis and synthesis. There must be a display of the characteristics or elements involved. Thus when a child sees a horse for the first time, he has only a slight apprehension of it, that is, he sees it as a concrete whole; but let

him view the animal with more discrimination, then he can comprehend it.

The process of analyzing and synthesizing those objects brought up by observation and experience is called Induction, or the mode of reasoning by which particular statements are aimed at. A child, when burned by fire, is led to observe the fire, the conditions and surroundings with which he is environed; he has had the experience and will retain it. A very young child is capable of performing an act of

reasoning; he can reason inductive-ly before he can deductively. It may be of an exaggerating nature, but this can be regulated. He should be corrected and, as far as possible, shown the true way; by this means he will become more chary concerning his statements, will search into them deeper; thus the highest faculty of the mind is trained in the inductive way. By this principle, which is an analytical process, facts and important statements have been secured which but for it, might, possibly,

never have been unearthen. These facts have accumulated little by little, and being classified, they now constitute the sciences; and their powers are wonderful.

The sciences, as we at the present time receive them, consist of a regulated compilation of inductive statements; we get the knowledge from them by a Deductive process; - that is we begin with the whole and proceed to its parts. The deductive method is one of the most important, since it is more expedient; we have the use and

benefit of all the experiences
of our predecessors; this prin-
ciple has proven to be of the
utmost importance, and the
grand source from which the
great men of today obtain-
ed their ability.