

comes to drawing conclusions about certain professors, it does not go through the ludicrous process of including these professors among the pedants and then all the pedants among the mentally unbalanced; that would be an informal inference of the type we have just been treating. Rather, it proceeds from the symptom to the disease; it sees the pedantry implying mental trouble and diagnoses straightway without any reference to all the pedants, i.e., without use of the general principle in its extensional generality. This is the crux of the question, for here are subsumption and implication contrasted. Now there is no reason to suppose that the statesman, alluded to above in connection with Afghanistan, generalised the situation he was considering into a class of ~~that~~ a certain type and then subsumed his particular and unique situation under the type; there is no reason ~~that-the-herd~~ to suppose that the border war between Sparta and Messene was generalised into a type; but there is considerable impression about to that effect, and ~~for-thi~~ the reason seems to be that we must imagine some such generalisation if we are to account for the perception of the truth of the implication in terms of ~~intuition and deduction~~ <sup>formal analysis</sup>; since it is accounted for by judgement, that reason is not valid.

Algebraic inference is <sup>like concrete inference</sup> ~~of the same type~~; the antecedent so obviously implies the consequent to the ~~trained~~ adept, that mention of the implication is superfluous. Thus,

$$1) \quad (x - a)(x - b)(x - c) = 0$$

therefore,  $x = a, b, c.$

$$2) \quad y = \sin x$$

therefore,  $dy/dx = \cos x$

and so on, indefinitely. Mathematicians emphasise the importance of an apt symbolism; the reason is that the symbolical expression gives the facts of the case, and the form of the expression (provided the symbolism is apt) implies or suggests the implications of the facts. The first step in mathematics is learning the implications of a large number of forms; as an excellent mathematician and teacher once put it, "You have to have an ~~X~~ x-ray mind that sees through the mere symbolical statement of fact to the form of the statement". It will be easily seen that for such reasons Leibnitz' notation of the calculus is preferable to Newton's; similarly "D" will be preferred to "d/dx" at times, because the latter suggests an operation, the former an algebraic quantity, ~~one factorises algebraic quantities but not operations; but when operations are to be factorised, it is helpful to change the notation.~~