

Exact Logic

1896 | The Regenerated Logic | CP 3.429

Logic may be defined as the science of the laws of the stable establishment of beliefs. Then, *exact* logic will be that doctrine of the conditions of establishment of stable belief which rests upon perfectly undoubted observations and upon mathematical, that is, upon *diagrammatical*, or, *iconic*, thought.

1902 | Logic (exact) | DPP 2:23-24; CP 3.616-618

Logic (exact): Ger. *exakte Logik*; Fr. *logique exacte*; Ital. *logica esatta*. The doctrine that the theory of validity and strength of reasoning ought to be made one of the 'exact sciences,' that is, that generalisations from ordinary experience ought, at an early point in its exposition, to be stated in a form from which by mathematical, or expository, Reasoning [...], the rest of the theory can be strictly deduced; together with the attempt to carry this doctrine into practice.

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There are those, not merely outside the ranks of exact logic, but even within it, who seem to suppose that the aim is to produce a calculus, or semi-mechanical method, for performing all reasoning, or all deductive inquiry; but there is no reason to suppose that such a project, which is much more consonant with the ideas of the opponents of exact logic than with those of its serious students, can ever be realised. The real aim is to find an indisputable theory of reasoning by the aid of mathematics. The first step in the order of logic towards this end (though not necessarily the first in the order of inquiry) is to formulate with mathematical precision, definiteness, and simplicity, the general facts of experience which logic has to take into account.