...that relation of the premissed facts to the concluded fact which is regarded as making the former a sign of the latter — may consist merely in the premissed facts having some character which may agree with, or be in some other relation to, a character which the concluded fact would possess if it existed; this is presumptive inference.

[—]

[Presumptive inference] includes those cases in which the facts asserted in the premisses do not compel the truth of the fact concluded, and where the significant observations have not been suggested by the consideration of what the consequences of the conclusion would be, but have either suggested the conclusion or have been remarked during a search in the facts for features agreeable or conflicting with the conclusion. The whole argument then reduces itself to this, that the observed facts show that the truth is similar to the fact asserted in the conclusion. [—]

It appears that there is a mode of inference in which the conclusion is accepted as having some chance of being true, and as being at any rate put in such a form as to suggest experimentation by which the degree of its truth can be ascertained. The only method by which it can be proved that a method, without necessarily leading to the truth, has some tolerable chance of doing so, is evidently the empirical, or inductive, method. Hence, as induction is proved to be valid by necessary deduction, so this presumptive inference must be proved valid by induction from experience.

The presumptive conclusion is accepted only problematically, that is to say, as meriting an inductive examination. The principal rule of presumption is that its conclusion should be such that definite consequences can be plentifully deduced from it of a kind which can be checked by observation. Among the wealth of methods to which this kind of inference (perhaps by virtue of its experiential origin) gives birth, the best deserving of mention is that which always prefers the hypothesis which suggests an experiment whose different possible results appear to be, as nearly as possible, equally likely.