Philosophy

Q) Discuss Mill's Method of Induction. Illustrate with suitable examples.

Ans) **Background**

John Stuart Mill's "Method of Induction", expanded and nordemized Francis Bacon's view of inductive science. These are five basic rules for making induction based on causal inferences. These were first described in the 1848 edition of Mill's classic 'A System of Logic'.

Mill's Methods of Induction

First Canon: The Method of Agreement

If two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which alone all the instances agree, is the cause (or effect) of the given phenomenon.

E.g. If cookies were stolen only when kashif is present in a group of children, one would suspect kashif as the theif.

Second Canon: The method of Difference

If two or more instances of the phenomenon under investigation, differs from the each other, ~~instance~~ under different circumstances.

For example, cookies are always missing except on days when kashif is not present, this makes kashif a suspect for theft. This means that

in one instance cookies go missing when kashif is present, and ~~are~~ the other instance where the cookies are safe when kashif is absent. This makes kashif the thief.

Third Canon: The joint method of agreement and difference
If two or more instances in which the phenomenon occur have only one circumstance in common, while two or more instances in which it does not occur. The circumstance in which alone the two sets of instances differ, is the effect/cause/part of the cause, of the phenomenon.

E.g. Cookies are always missing whenever kashif is in a group of children, and never when kashif is missing one or more times from those groups. And if these circumstances don't apply to other children, meaning cookies are missing regardless of their presence, or absence, means that kashif is the thief.

Fourth Canon: The Method of Residues
Eliminate/discard instances known about a phenomenon and remainder ~~remained~~/residue is the cause/effect of a phenomenon.

E.g. New cookies appeared in the cookie jar, shortly after Hiva, Zeenat and Fatima arrived for the party. It is known that Hiva brought chips, and ~~fat~~ Fatima brought pasteries., Therefore, Zeenat must have brought cookies.

Fifth Canon: The Method of Concomitant Variations

Variation in one phenomenon occurs, whenever their is a variation in another phenomenon, then that phenomenon is cause/effect/partial.

E.g. If the number of cookies disappearing is proportional to the number of crumbs on kashif's shirt, and if no similar correspondence is found among other children, then kashif is the thief

Criticisim

Complexitly of the cases

This method of inductions is not very effective when the complexity of the case increase. Meaning that if there are multiple events/instances related to phenomenon then the effectiveness of this method greatly decreases.

Depended on the events catalogue

The limitation of this method lie in the completeness of the cataloguing of events. This means that if the events/instances of a particlar phenomenon are not fully recorded/documented then it prevents the individual from reaching an accurate conclusion

Conclusion

In conclusion, Mill's method may seem like 'common sense', however, before this not many people where aware of common sense. Therefore, his work brought these rules to light.