Critical thinking - inductives and deductive reasoning

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CRITICAL THINKING CRITICAL THINKING Inductive Reasoning According to Teitelbaum & Wilensky , inductive reasoning is the reasoning whereby the premises request to deliver strong evidence for the truth of the conclusion. The argument for inductive reasoning is supposed to be probable, grounded upon the evidence given. In this case, a logical process contains several premises that are believed to be true. These premises are combined to attain a specific conclusion.

For example

Since Sue and Mary are friends where Mary enjoys running, fishing and rock climbing while Sue likes rock climbing and fishing, therefore, Sue ought to also like running.

In this argument, a close relationship has been established on Mary and Sue. In the first place the two women are friend and hence most likely they have common interests, hobbies, beliefs and so forth. The argument builds on likelihood of commonness between acquaintances in order to include an additional train that could be common for the two.

The premise of this argument is the statement that gives details the close relationship involving the two ladies. The premises try to establish the commonness of the two girls. In this case, the girls are friends and moreover, both of them like fishing and climbing rocks.

The conclusion of this argument is that Sue also loves running. In inductive arguments, the truthfulness of the conclusion is derived from the explanations given in the premises.

This argument is inductive because the premises present some evidence to support the truthfulness of the conclusion. Furthermore, nobody can determine its validity or invalidity. Only a comparison can be used to

challenge the argument. The conclusion needs not to be certain.

Deductive reasoning

According to Teitelbaum & Wilensky (2013), this is a process of reasoning based on one or more statements in order to arrive to a logically certain conclusion. These types of reasoning need to connect premises with conclusion. Deductive reasoning relies on clear and true rules of logic to reach a necessarily true conclusion.

For example

There must be something incorrect with the engine of my truck, because it will not start.

In this case, we are arguing that the engine of the truck is not function properly. In the argument, the evidence of a bad engine is provided as that it will not start.

In the argument, ‘’ there must be something incorrect with the engine of my truck’’ is the premise that needs to be ratified as true. In deductive logic, this premise will require to be supported with a conclusion that can either be validated or invalidated.

In the argument, the conclusion is the fact that the truck’s engine failed to start. In this case, there are two outcomes of the logic: if the car fails to start, it implies that the premise is true, on the other hand, if the engine starts, therefore the premise is untrue.

The reasoning illustrated above is a deductive reasoning. This is because the certainty of the conclusion can be established in order to validate or invalidate the premises. In this, someone just requires starting the car’s engine and thus the truth is established.

Reference

Teitelbaum, J., & Wilensky, S. (2013). Logic and Philosophy: A Modern Introduction

(2nd ed.). Sudbury, Mass.: Jones & Bartlett Learning.