A New Theory of Epistemic Belief and Knowledge

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Motivation:

For some time now, there has been an extensive philosophical-logical literature on the subject of belief and knowledge in order to answer the question of the connection between belief and knowledge in a strictly systematic way. However, the various theories differ considerably in their definitions and emphasis.

When explaining terms, their proximity in content to normal scientific use must also be considered. It is characteristic of the common understanding of knowledge in science that something believed to be true by one person, or by a group of people, cannot be relied upon as being true. Fallacy cannot normally be ruled out, even in science. Scientific knowledge is usually reasonably stable, but not incontrovertible, and is therefore valid only for the time being, but this should not be confused with a fallibilist position.

Our new theory of epistemic belief and knowledge:

Our new theory aims to answer questions such as (in the following, "*A*", and "*B*" are variables for propositions):

- What does it mean that someone (or a group of persons) believes in an epistemic sense that *A*?
- What does it mean that someone is convinced that (*A and B*)?
- If someone doubts (*A or B*), does he also doubt both *A* and *B*?
- What does it mean that someone is indifferent with regard to (*non-A under the condition B*)?
- Does a kind of doxastic modus ponens apply to epistemic belief? Does this mean that if someone believes that *A* and also that (*B under the condition A*), then he also believes that *B*?
- Is it possible that someone knows that *A*, although the truth of what is known is not already included by definition?
- Can what is known also be evident, i.e. immediately plausible?

Such questions can be answered precisely in our theory. Important well-known theorems of other epistemic and probability theories can also be proved by it, such as the pendant to Bayes' theorem; but our theory is also very different from previous epistemic theories. For example, in our theory, the pendant to the definition of conditional probability is not a definition, but a theorem. In particular, we have proved a theorem that allows geometric estimates, which is of great didactic importance and makes our theory very user-friendly and easy to handle.

One of the features of our theory is its new and unconventional definition of knowledge. However, the theorems show that all definitions are appropriate in content.

Methodology:

Our theory is structured in a strictly deductive manner. All definitions and preconditions are explicitly stated, and all theorems, without exception, are proved strictly logically, step by step. This ensures that every result is comprehensible and verifiable.