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IB Theory of Knowledge

Part 1: Essay on a prescribed title

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Each academic discipline is, in essence, an organized attempt to uncover new knowledge; it is in the nature of ourselves to seek a deeper, more accurate understanding of the world surrounding us, and we intuitively understand that this process of knowledge production requires providing evidence, to arrive at conclusions through a chain of rigorously logical, or intuitively emotional arguments. But equally essential is *belief*—the capacity to accept a fact without yet evidence nor proof, that can both motivate, or provide a system for, gathering knowledge. This essential constituent in knowledge production, however, is often overlooked, as they stray from the emotionally removed, reasonable academics we aim to be. Yet, an investigation of conclusions we assume without a clear understanding, may provide insight into our system of knowledge production, as well as the fundamental nature of knowledge itself, as we question: *to what extent do knowledge rely on assumptions without evidence?*

Such an investigation relies heavily on clear definitions of relevant terminology—in this case, “acceptance” and “knowledge,” are such terms. The definition of *knowledge* is most widely known as “justified true belief,” defined by Plato; while modern thinkers may disagree, we hope to adopt it as a basis for discussion.¹ More controversial is the meaning of “acceptance”—in this context we extract two seemingly contradicting definitions: “to agree to undertake,” and “to recognize as true.”² The former implies a certain *willing tolerance*, while the latter is closer to an emotional belief—possibly as it is often the “justified true belief” that the acceptance is directed towards. Agreeing to undertake a certain conclusion, of course, does not

require belief, and relates closely to the doubtful and skeptical nature of mathematical investigation, while an emotional belief more closely resembles the intuitive recognition of beauty or truth in the arts. We will investigate both definitions in their respective disciplines; namely, mathematics and literature.

A core concept in a discussion of unfounded assumption can be found, rather ironically, in mathematics. Every element of mathematical knowledge is based on strict reason, every theorem rigorously proved by its predecessors. We are entitled, however, to question its fundamental robustness, asking: *to what extent can logical knowledge be proven?* This skepticism is justified, as this seemingly robust a chain of logic breaks down as we reach the level of axioms, where facts are assumed without evidence, rather grasped intuitively. For example, Euclid's axioms of plane geometry suggests that *two parallel lines do not meet*.³ While the statement is widely available in every elementary textbook, no clear proof accompanies the statement; it is simply "too" true to be proven, recognized true without evidence. Yet, the production of all geometric theorems rely on this seemingly unstable foundation.

Even with an extensive set of axioms, we still do not have a foundation for all of mathematics, as Gödel's incompleteness theorem famously suggests.⁴ The disturbing suggestion that there may be truths unprovable within a system founded in a limited number of axioms, and that the axioms themselves must be expanded to prove such truths, also alludes to the requirement of accepting certain unproven conjectures as fundamental truths. The expansion of geometry into Riemann surfaces—curved surfaces such as those enclosing a sphere, in which two parallel lines may meet—is a clear demonstration of such an acceptance.⁵ While Riemann geometry underlies the majority of modern mathematics and physics—indicating

effective knowledge production—, its acceptance without clear evidence, may point to the inevitable fact that even in the most rigorous of disciplines, acceptance and incorporation of conclusions without evidence, is crucial in the production of knowledge.

On the other hand, one could argue opposingly that such assumptions are not false, but intrinsically indeterminate and therefore self-evident, just as how we *know* two parallel lines do not meet, or how we may *feel* God is overlooking us all. These are instinctive, possibly self-evident understandings, and can be argued to be founded on a system of knowledge above logic, a core way of gaining knowledge—intuition. We do not ask for evidence of such facts as we intuitively understand their truthfulness—they may as well be our definition of *truth* itself. Similar to Decart's self-consistent proof of his famous statements: "I think; I exist," if we were to regard foundational ideas as self-proving statements, it follows that only evidenced claims are used in the production of knowledge from such foundations.⁶

Furthermore, spontaneous bursts of artistic or literary talent—generation of knowledge that appears to accompany no evidence—may be attributable to the fact that our minds are formulated and educated within such a framework of foundational principles. New knowledge will, therefore, spawn only within this framework of axiomatic statements—*the words we use to describe an idea, the moral principles we unconsciously agree to*—and thus its evidence traceable. Therefore, even the most seemingly unevidenced pieces of knowledge, following such an argument, must be evidenced and therefore lacks any unfounded assumptions in the process of its generation.

An acceptance of unfounded conclusions can also be found in the less rigorous, adaptable confines of literature. In such a discipline, the “acceptance” of a reader can be defined as one’s *emotional belief*, and a discussion regarding its importance in generating knowledge centers on the question: *to what extent does an individual’s perspective—experiences, emotions, or attitudes—allow or shape the production of knowledge?*

A person’s set of beliefs, or their *perspective*, is a collection of *personal conclusions* based on their experiences. Such conclusions often are, however, based on extrapolations with only a few points of reference; a single failed romantic relationship might convince one to conclude that love is unimportant or irrelevant. Despite, however, the fact that these perspectives are not evidenced and often quite illogical, without them art would cease to exist. Art, especially literature, is regarded to exist in the mind of the viewer; only upon reflection into one’s perspective does a work of literature take on any meaning or generate new knowledge. The aforementioned heartbroken individual reading William Shakespeare’s *Othello* might sympathise and grieve with the pain and guilt of love, while another, with a different set of experiences and thus a distinct set of beliefs, may see a story of ambition and manipulation. The literary work itself does not hold any true knowledge; only upon being interpreted within the reader’s internal conclusions and biases, new knowledge can be generated; in this case, upon reflection, the heartbroken reader may gain a deeper understanding of human relationships.

Thus, a process of producing literary knowledge without conclusions would be impossible; the reader’s biased and unevidenced conclusions must exist in order for the work to hold meaning. Consider a computer program, equipped with the knowledge of all known vocabulary and literary techniques, reading *Othello*—an

hypothetical example of a reader lacking personal beliefs. Such an algorithm may be able to analyze poetic devices or point out grammatical errors, but would not be able to gain any new understanding about human nature. The human reader's emotions and perspectives—the unevidenced conclusions unduly extrapolated from experience—, is essential for the interpretation of a literary work; a process yielding new, deeper understandings. Thus, such an acceptance of personal beliefs which are without evidence nor reason, is essential in the production of literary knowledge, ultimately suggesting the significance of the *emotional belief* of unevidenced conclusion in producing new understandings in the field of literature.

On the other hand, the discipline of psychology and sociology dictate that even such perspectives, however illogical and unfounded they may seem, can be evidenced. Both fields aim to provide evidence to human behavior using scientific principles; an adult with a biased viewpoint towards jealousy in love may have had problems with their parental relationships, or another's tendency to focus on a character's ambition might be attributable to peer pressure within their friend group.⁷ The formerly mentioned "experiences" that shape the production of knowledge, therefore, may be clearly evidenced by scientific theories regarding human behavior. Even human personalities may merely be part of a logical chain extending from scientific theories to new literary knowledge—a psychoanalysis of the author, the characters, and the reader, may be enough to substitute a human reader's perspective, thus eliminating the need to accept such brittle, unevidenced, and humanly foundations in the generation of knowledge even in a subject deeply regarding human nature.⁸

While a proof of the premise, the *requirement of unevidenced conclusions in generation of knowledge*, must present a coherent argument throughout *all* areas of knowledge, a falsification requires only a single example. This exploration, ranging from the rigors of mathematics to the subjectivity of literature, attempted to evidence the premise in two distinct disciplines, while the opposing arguments aimed to falsify such an attempt. While we continuously try to provide evidence for all new knowledge—such as this essay—, it may be our determination that *every piece of fact must be shown to be true from evidence*, is itself an accepted conclusion lacking evidence, and is simply, a fictitious human ideal.

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