

Chapter 1

THE DESIRE FOR KNOWLEDGE AND WISDOM

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Key Words: curiosity-based learning, information gap, interactive architecture, question-answer framework

Abstract

Knowledge and wisdom hold intrinsic value for people. The desire for knowledge and wisdom, when focused on a specific absence of information (or *information gap*), generates the phenomenon of curiosity. We discuss the use of our question-answer framework [3] to describe awareness of uncertainty and to model curiosity. An information gap – a specific uncertainty that one is aware of – can be represented as question with many possible answers. We associate diversive and specific curiosity respectively with the goals of opening and filling information gaps.

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1. Introduction

Humans survive by processing information. Given evolutionary selection, it is a natural consequence that all people want to find meaning in their lives [7], try to make sense of their world [1], and experience curiosity. Golman et al. [4], following Loewenstein [10] and Golman and Loewenstein [3] conceive of curiosity as a motive for acquiring a specific piece of missing information, i.e., for “filling an information gap”, based on an underlying universal desire to know for its own sake, to make sense of the world. As Aristotle asserted in 350 B.C., “All men by nature desire to know.”

2. Desire for Knowledge

Defining curiosity as a motive for information acquisition rather than as the phenomenon of information acquisition allows for the scenario that an individual avoids information despite being curious about it because of other motives that override this curiosity – for example, a person may not want to read a spoiler giving away a surprise ending to a book he plans to read specifically because he is curious to find out the ending after getting all the clues. Defining curiosity as pertaining to specific pieces of information – unanswered questions in our question-answer framework – allows us to integrate curiosity with other motives for information acquisition or avoidance that arise from the maximization of belief-based utility.

The question-answer framework is useful because it allows us to distinguish the specific pieces of information that an individual does want to know about from the many uncertainties that the individual does not worry about or even think about. The standard partitioned state-space framework permits a distinction between two states of affairs – knowing and not knowing – but makes it difficult to capture unawareness [12, 2]. The question-answer framework distinguishes between *three* different states: knowing (represented by a question and a particular answer); not knowing, but knowing that one doesn’t know (represented by a question and a set of possible answers); and not knowing and not knowing what one doesn’t know (represented by the absence of an activated question). This third state corresponds to pure unawareness, in the sense that an individual is unaware of the question itself and does not even distinguish different possible answers. The question-answer structure is consistent with, and could be cast in terms of, a generalized state-space model (e.g., [13, 5]), but it emphasizes that the human mind privileges certain uncertainties over others.

The question-answer knowledge structure is intended to reflect human information-processing capabilities. Our cognitive maps of the world are not sets of possible states, each described in exquisite detail to account for all possible consequences of all possible decisions. Instead, people attend to a few relevant aspects of a situation and use limited information to make a broad judgment that can be refined later, if necessary. People tend to set goals and monitor their progress toward them in order to navigate a complex world [11, 8, 9]. In this contribution, we advance the idea that the acquisition of knowledge is also goal-oriented. We don’t simply seek out information to maximize the data available to us or even to optimize future decisions, but instead tend to seek answers to questions that are either posed to us or that we pose to ourselves. Questions are, therefore, very much like informational goals or reference points. Indeed, focusing on a question that one can-

not answer – e.g., a puzzle one cannot figure out – can torment a person and at the same time motivate the search for an answer, much as a high reference point can simultaneously detract from utility and motivate one to strive to reach it.

The question-answer framework thus allows us to recognize the desire for knowledge as a desire to answer activated questions (without necessarily assuming a desire for answers to questions that one is not asking). We associate specific curiosity with this desire for knowledge in the face of an information gap.

3. Desire for Wisdom

The universal desire to make sense of the world also underlies a broader notion of diversive curiosity, exploration of the unknown without a specific informational goal in mind. While our theory [4] does not make predictions about the determinants of diversive curiosity or its strength in different contexts, the question-answer framework does give us a framework that can acknowledge the desire to explore the unknown and to search for insight and wisdom.

We would define *wisdom* as the combination of awareness and knowledge. (We are aware that this may not be the only usage of the word, but the distinction between knowledge acquired from a state of uncertainty and knowledge acquired from a state of unawareness is rarely made explicit. The term, “wisdom” seems to adequately capture this distinction if we think of a wise man or woman as not only having the right answers, but also asking the right questions.)

Question	Answer	Belief	
Latent	–	Unawareness	
Activated	Unknown	Uncertainty	↓ Awareness ↓ ↓ Knowledge ↓ Wisdom
	Known	Certainty	

Table 1. Wisdom, the combination of awareness and knowledge.

While we cannot easily give a person the choice whether or not to become aware of a question, we can at least introspect. On this basis, we posit that awareness of meaningful questions is a source of utility. Generally wisdom is, or at least tends to be, preferable to ignorance. We of course must allow exceptions if we are serious that beliefs have valence that may be negative. The popular adage that “ignorance is bliss” expresses concern for the negative beliefs that awareness may entail. However, in many natural situations, a person may reasonably anticipate that newfound awareness will bring about neutral or even positive beliefs. In such contexts, information and awareness may be simultaneously acquired. For example, a bird-watcher typically would strictly prefer to learn the name of a previously unnoticed songbird rather than to remain unaware of its existence. Specific curiosity is behind the desire to catch the name upon becoming aware of the bird’s existence, even though the particular name does not really matter, but utility from awareness implies that opening, and then immediately closing, an aversive information gap need not be zero sum. Rather, discovering the new bird’s name, acquiring both the question and the definitive answer, produces a net positive utility gain, which is what we designate, in the context of our model, the *utility of wisdom*. We find the desire for wisdom in individuals’ varied pursuits of insight and expertise, from a naturalist’s passion for identifying flora and fauna

to a fan's thirst for new baseball statistics or a connoisseur's discriminating taste for wine. Indeed, lab studies also find that people prefer environments which seem to stimulate new questions and promise to provide relevant information [6].

Conventional economic theory can certainly accommodate choices to devote significant time, money, and effort to developing expertise that is unlikely to confer any material benefits. One could posit, for example, that the consumption experience of the wine connoisseur is different from that of the novice – i.e., that, in effect, they are consuming different wine, even if the label on the bottle is the same. However, while such an approach could, in principle, accommodate almost any observed pattern of preference for wisdom, it seems much more parsimonious to accept awareness and knowledge both as direct sources of utility. We would accept that, for example, a wine drinker would prefer to know whether she was drinking a merlot or a shiraz even if she were indifferent between the two wines. She would like to know how those two wines differed in taste, even if it did not help her to make better choices between wines or provide any kind of grist for bragging about her knowledge.

4. Conclusion

John Stuart Mill recognized the desire for knowledge and wisdom in his classic *Utilitarianism*, defending the utilitarian approach from critics of his time who argued that the hedonic notion of maximizing pleasure and minimizing pain was dehumanizing. Mill argued that, “it would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone.” Mill then continues with what may be the most famous passage in all of his work: “It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied.” We too assert that knowledge and wisdom can be a very real source of utility.

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