A Controversy that Never Happened: Ancient and Modern Concepts of Opinion, Knowledge, and Information-Seeking Behavior

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Abstract This chapter traces the distinction between knowledge and opinion from Plato to contemporary social science and shows how ancient thinking is linked to modern conceptualizations of health-related knowledge and its consequences for health behaviors. While Plato was concerned with how a human can distinguish his own knowledge from his opinions, and with the role that certainty plays therein, contemporary social science is concerned with differentiating humans' subjective and objective knowledge from an observer position. Elements of these distinctions find their way into a model of the complex relationships between health information seeking, subjective health knowledge, health literacy, and empowerment to explain health behavior. The sketch shows that ancient philosophy can help understand and conceptualize contemporary variable-oriented modeling.

Keywords Knowledge–opinion • Subjective–objective knowledge • Information-seeking behavior • Health literacy and empowerment

1 Introduction

Controversies feed on the assumption that the representatives of opposing positions have at their disposal the knowledge that allows them to take a stand opposite to what their respective opponents hold. It would not suffice if parties in controversy were to refer to nothing but what they have expressed and related to the other side in the form of sentences. It is true that controversy will begin with conflict over sentences, but it will only be able to develop in a meaningful way if the parties begin to expound the reasons why they think they can take a particular stand that

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is voiced in sentences. Only in the defense of claims does it come to light to what degree the parties not only have command over sentences but also an understanding of the subject matter itself. Moreover, not only understanding is revealed here, but it also becomes apparent whether there are incongruities between the claims made and the knowledge of the person who makes them.

In a wealth of profound studies on controversies, Marcelo Dascal has described the forms of the course of argumentative conflicts and produced an abundance of stimulating ideas for future research. This chapter deals with an aspect that has been a foundation of controversies since the beginning of philosophy: the distinction between knowledge and opinion. That this distinction is crucial needs no further explanation. What is likely to be less familiar is the fact that some central assumptions in the discussion of this distinction for instance in Plato's philosophy can well be related to comparable discussions in contemporary social science. What aspects of social science studies could Plato have taken note of? And what could modern social scientists interested in the subject of knowledge and opinion learn from Plato? To the best of our knowledge, no contemporary theorist has ever considered ancient theories as useful for their own conceptualization. By contrasting both positions, which can only be done roughly, we intend to describe a potential controversy that has not really taken place. One is inclined, however, to regret it has not really occurred; for its benefit—this chapter assumes—would have been considerable. In the following, we will compile in summary what can be found on knowledge and opinion in Plato and then, in a second step, turn to this subject as it is treated in some contemporary social science studies. Finally we will sketch a model of how the synthesis of central assumptions could be presented in a topical research area within health communication. We will start with a brief description of the distinction in Plato and move on to a conceptual clarification in social sciences.

2 Knowledge and Opinion in Plato

Plato is certainly not the only ancient philosopher who dealt with the difference between knowledge and opinion. Other authors, among them Aristotle or the stoics, offer quite extended discussions about the distinction between knowledge (episteme) and opinion (doxa). But Plato is the first author in ancient philosophy who deals with the distinction in a systematic way. His entire work is based on the distinction, and it is hardly imaginable to understand his philosophical insights without considering what he contributed to this topic. Other philosophers who deal with the difference will, whether they agree or disagree, take Plato as the reference point. Therefore, we take Plato's discussion as one position in the controversy between ancient and contemporary concepts of knowledge and opinion.

One of the possibly most famous narrations on the subject of opinion and knowledge is Plato's allegory of the cave (Rep. 514a–520a). It tells of humans who, from their birth on, are living in a cave, everyone tied to their particular place. In their back, there is a wall, and behind the wall is a path on which other humans walk.

The walking humans carry artifacts, plastic reproductions of living things which, by a fire burning in the back, cast a shadow on the wall the tied humans have in view. The tied humans themselves also cast a shadow on this wall, without knowing it is their own shadow they are watching. Now for the human beings in the cave, the world of the shadows is the only reality they can recognize. To know it as a shadow world it is not enough to free a human being from his ties; he must also be pressured to turn his head, to stand up, and look at the fire. Only then would he understand that the objects constitute a higher form of reality than the shadow they cast. Were one to guide the humans from the cave outside, they would, after getting used to the light, understand what the real artifacts are. No one who ever walked outside the cave would be willing to return to the dark: too high would be risk to be killed by the cave men that prefer existing under the misapprehension of their opinions over acquiring true knowledge of reality.

Two different interpretations of the difference between knowledge and opinion in the works of Plato can be pointed out in relation with this allegory. For once, there is an objectivist reading (Wieland 1999), according to which knowledge and opinion can be distinguished with regard to their proper objects. According to this distinction, there are objects of knowledge and objects of opinions. Whereas opinions deal with changeable objects—the shadows and artifacts in the allegory of the cave where objects are dependent on circumstances—objects of knowledge are those that allow the human recognition a true and full understanding. This line of interpretation implies that there is no way of turning opinions regarding specific objects into proper knowledge about them. If one follows this interpretation, there is no such thing, strictly speaking, as knowledge of the shadows and artifacts the cave men in the allegory watch. Only the ascension to bright daylight, which makes them recognize the true nature of things, allows knowledge of objects and, in consequence, of the relationship of objects to their shadows.

The other, subjectivist reading of the difference between knowledge and opinion in Plato proceeds from the assumption that the objects of opinions and the objects of knowledge come from the same class of objects. This means that knowledge and opinions cannot be qualified with regard to their objects, but that one and the same thing can be the object of knowledge as well as of opinions. The transition from opinion to knowledge is possible, and it happens by substantiating opinions, providing reasons for them. Distinguishing opinion and knowledge in this sense is close to the modern view that calls somebody knowing who not only intends a matter but also achieves it and is aware of this and able to give reasons for it (Hintikka 1977). According to Plato, the difference between opinion and knowledge goes along with different levels of certainty that can be ascribed to both forms. Opinions are open to errors, whereas knowledge enjoys the privilege of certainty.

Besides the distinction of knowledge, which is certain to be true, and opinion, which might be erroneous, Plato also discusses the concept of a true opinion that is an opinion which refers to the object in a correct way (e.g., Men. 99b; Symp. 202a; Krat. 387b). This would be in some way trivial had Plato not used the description of a true opinion to clarify another epistemic problem: Whether an opinion is true or false can easily be decided from an external point of view. If, however, the person

who holds an opinion himself is involved in judging whether it is truthful or not, he does not have the proper criteria to make such a judgment. Therefore, from a merely subjective point of view, he can only say whether he believes his opinion is correct or not, but he certainly does not know this. Even if somebody holds a correct opinion about an object in question, he cannot vouch for the correctness of his opinion, just because it is merely an opinion.

There is another quality according to which knowledge and opinion can be distinguished, beyond the aspects taken from Plato's work that were mentioned so far. Recalling this aspect is important if only for the reason that it apparently does not receive the attention it deserves in the contemporary discussion of the two concepts, even if authors such as Gilbert Ryle (1949) or Polanyi (1973) have emphatically called it to mind. This quality is alluded to in the allegory of the cave when it is stressed that only those cave men can achieve knowledge who learn from their own experience—and this means from taking the path out of the cave—how different reality looks outside of the cave. What they can relate to their fellows who have chosen to remain in the cave are merely assertions that cannot be perceived by their listeners as something else than opinions. The knowledge that a person acquires who chooses the path out of the cave cannot be communicated as such. This is so because it is linked inseparably with its owner, other than opinions, which can be shared. In another work, the dialogue Menon (Men. 97a), Plato uses another example for explicating this quality of knowledge and its categorical difference from opinion: Only a person who has walked the street to Larissa himself can have knowledge of it. He who knows it from reports only might hold, at best, a true opinion of it. It certainly would not make a difference to a person seeking orientation whether he learns a true opinion or hears from someone who knows the way because he has walked it himself. But the example makes clear why Plato, at another place, qualifies knowledge, in contrast to opinion, as free of error: an experience that yields knowledge with regard to a particular slice of reality is something you have made or not made, but it cannot be called false or wrong. Knowledge is therefore, other than true opinions, free of error as it turns out not to be a propositional object. This conception of knowledge and its differentiation from opinion and the gradation of the certainty of knowledge have basically no part in the contemporary discussion of subjective and objective knowledge.

3 Objective and Subjective Knowledge in Contemporary Social Sciences

The study of knowledge in social sciences has a long history. It is a rather well-defined construct in psychology, consumer research (Flynn and Goldsmith 1999), as well as in related fields. Following a widespread distinction, knowledge falls into three categories. The first category is objective knowledge, meaning the amount, type, or organization of what an individual has stored in his memory (Brucks 1985). Certainly, this type of objective knowledge exists although the measures

of objective knowledge are never objective in themselves. They always depend on how individuals will report on their objective knowledge. The possible vagueness of the measures of objective knowledge, however, is quite different from what is meant by subjective knowledge. This construct refers to an individual's perception of how much he/she knows. Another way to describe subjective knowledge is "a consumer's belief about his/her objective prior knowledge" (Spreng and Olshavsky 1991). In other words, subjective knowledge indicates self-confidence levels. The third category that sometimes has been discussed in the context of how objective knowledge relates to subjective knowledge is the amount of experience an individual has gained with a specific object or topic. This third notion comes close to Plato's concept of knowledge by direct experience, although it has rarely played a role as central as it does in Plato's theory of knowledge.

For each of these three distinct constructs, there are several measures available. The way objective knowledge is measured depends on the type of object that is known, whether for instance it is a specific product category or a more general area of knowledge, such as the weather or beneficial health behavior. For subjective knowledge as the individuals' perception of the amount of information they have stored in their memory, a measure was developed by Flynn and Goldsmith (1999). Experience—for example, in the field of consumer research—is usually operationalized as the ability to perform product-related tasks (Alba and Hutchinson 1987). Describing ways of measuring these concepts highlights a difference between these concepts and Plato's thinking. Plato was concerned with how the subject, the person who holds knowledge and opinions, can be able to tell the one from the other. The modern concepts of subjective and objective knowledge, in contrast, view the matter from the perspective of an outside observer.

Now, although what we think we know (subjective knowledge) and what we actually know (objective knowledge) are two different things, they are assumed to be related to each other. One way both constructs could be interconnected is to assume that what an individual believes he/she knows should be some function of what he/she actually does know (Radecki and Jaccard 1995). A meta-analysis of studies in the past three decades that Carlson and colleagues (2009) conducted in the field of consumer research, indeed demonstrated that overall a moderate positive relationship between subjective and objective knowledge was evident. However, studies in different fields have shown that people tend to overestimate their objective knowledge, that they are overconfident about themselves (Alba and Hutchinson 2000). Pieniak et al. (2010), who conducted a study on fish consumption, found that subjective knowledge was more strongly associated with behavior than actual (objective) knowledge. One way out of this maze is to trace back the strength of the correlation between objective and subjective knowledge to the type of knowledge involved. On a more general level, when objective knowledge referred to matters other than products such as medical services (Duhan et al. 1997) or health plans (Capraro et al. 2003), the correlation was rather weak.

On top of the problem of how strongly objective and subjective knowledge are correlated, another question arises: whether subjective knowledge has any effect on individuals' information-seeking behavior. The rationale for linking

subjective knowledge with information seeking is rather evident: the perception of the limitation of one's own knowledge should result in subsequent information-seeking behavior; the perceived knowledge is a motivating factor in the learning process (Park et al. 1988, 1994; Raju et al. 1995). Therefore, it is hypothesized that subjective knowledge will impinge on information-seeking behavior in the way that higher levels of perceived knowledge will lead to lower levels of information seeking (Radecki and Jaccard 1995).

4 Conceptual Framework of Underlying Factors of Health Behavior

Contrasting the two traditions, it appears that Plato's thinking on knowledge and opinion largely corresponds to the modern concepts of objective and subjective knowledge. Plato could have agreed to the idea that knowledge and opinions can be distinguished by different degrees of certainty. But there is another and more surprising similarity. The transition from opinion to knowledge is more complicated than the model of different degrees of certainty suggests. For as long as a person does not recognize that the opinion he/she holds is in fact just this, a poorly substantiated opinion, but assumes it is certain and error-free knowledge, he/she will have no motivation for orienting behavior on anything else but opinion. As obvious as the difference between knowledge and opinion might be in the perspective of an outside observer, it is less plausible when measured against the view of the insider, i.e., the person who holds opinions or knowledge. This is the problem that Socratian *elenchos* addresses. The dialogues in which Socrates confronts his partners with their lack of knowledge demonstrate how the partners' opinions in their putative certainty block the path to knowledge. To be able to walk this path, a new interpretation of one's own knowledge is required. Modern social science draws attention to a comparable matter when it finds a weak correlation between subjective and objective knowledge. Several studies suggest indeed that perceptions regarding how knowledgeable individuals are about a specific content domain are often but weakly correlated with the individuals' objective knowledge (Kruger and Dunning 1999; Radecki and Jaccard 1995; Jaccard et al. 2005).

In the following, we briefly outline a conceptual model that brings together the previously discussed concepts of subjective and objective knowledge and information-seeking behavior, putting them in the field of health behavior. Figure 1 presents the overall conceptual model that we propose for examining the relationships between the major determinants of health behavior. The concepts of subjective knowledge and information search have been discussed in the prior paragraph. With regard to objective knowledge, we propose that this is part of the overall and multidimensional concept of health literacy that includes three concepts, namely, (1) declarative knowledge, e.g., information about health and medicine; (2) procedural knowledge, i.e., rules guiding reasoned choice about the proper course of action; and finally judgment skills (Schulz and Nakamoto 2005, 2013). With the concept

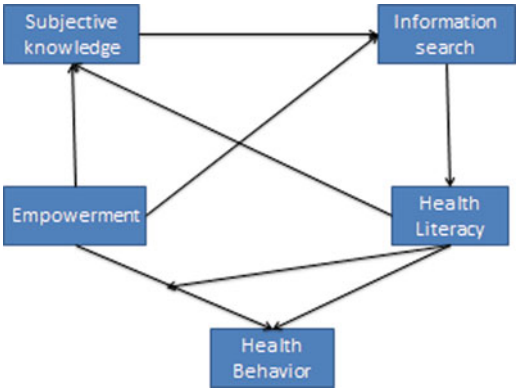

Fig. 1 Health empowerment and its effect

of empowerment, we refer to the individual taking increased responsibility for and a more active role in decision making regarding his or her health. In the literature, there are different emphases, and no proper theory of patient empowerment has so far been developed (Aujoulat et al. 2007).

First, we draw on the concept of psychological empowerment. This view highlights the subjective experience of empowerment. Spreitzer, in her measure of empowerment, identifies four constructs inherent in (organizational) empowerment—meaningfulness (or relevance), self-efficacy (or competence), self-determination (or choice), and impact (Spreitzer 1995). These four cognitions can be summarized in the following four propositions: "I feel that doing this is relevant for me," "I am able to do this," "I can choose between different ways," and "I can make a difference." Within our context, these four propositions reflect an individual's orientation in dealing with a specific health condition. We term these volitional components because they relate particularly to the motivation one feels to participate in health planning, decision making, and behavior.

Our framework, as it is shown in Fig. 1, maintains first that subjective knowledge influences subsequent information-seeking behavior in a specific health domain. Prior research has found evidence that subjective knowledge impinges on information-seeking behavior such that higher levels of perceived knowledge lead to lower levels of information search (Radecki and Jaccard 1995). The idea that individuals who consider themselves as knowledgeable in a specific domain of knowledge will be less willing to check for additional information on this topic is quite familiar to Plato.

Subjective knowledge is influenced by two variables, objective knowledge as a part of health literacy and empowerment. As to objective knowledge, common sense would suggest that what people actually know should impact on what they believe they know. And the other two concepts that are part of health literacy, procedural knowledge and judgment skills, should equally impact on the confidence in one's own knowledge. (However, previous studies have shown that the relationship between objective and subjective knowledge is moderate.) On the other side, what an individual believes he/she knows is also a function of other variables that are all

included in the construct of empowerment. One is meaningfulness, which addresses the personal relevance of the topic to the individual. As previous studies have shown, the meaningfulness of a topic influences attention and comprehension of information about the topic in question (Greenwald and Leavitt 1984). More generally, meaningfulness will influence self-assessments of knowledge. The direction of this influence, however, remains open. It might even lead to over confidence in one's own knowledge: The more meaningful the topic appears, the more the individual may overrate his confidence. Similarly, the other concepts of empowerment, namely, self-efficacy, self-determination, and impact, may impinge on subjective knowledge. Meaningfulness, in addition to its direct impact on subjective knowledge, may also directly influence the information search. The more relevant a certain topic appears to the individual, and the more the individual's subjective knowledge is considered to be low, the more it is expected that the individual will search for further information. In this sense, information-seeking behavior will be directly influenced by meaningfulness.

The next relationships we have briefly to describe are (1) the impact of information-seeking behavior on health literacy, (2) how health literacy will have an effect on health behavior, as well as (3) how empowerment is expected to impinge on health behavior. To the first one, information seeking and health literacy are considered to be positively correlated: the more people are seeking information on a specific health topic, the more they are expected to show a higher level of health literacy. Also, from several studies we know that health behavior is positively related to the level of health literacy. As described above, the construct of health empowerment focuses on the importance of autonomous action by the patient serving his or her own health interests (rather than on compliance with directives from healthcare professionals). This view of empowerment highlights the need for a person to have not only information but to be able to use that information in making judgments and decisions. We expect that an increase of health empowerment will on one side increase the information search of the individual: the more the individual is convinced that he or she can make a difference, the more he or she is likely to search for additional information on their own health condition. And the less the person considers herself as being able to change her own condition, the less she will try to look for more information. Additionally, health empowerment is supposed to impinge on health behavior. For this relationship we refer to all the literature that has given evidence for how a high level of self-efficacy will increase healthy behavior of the individual.

5 Conclusion

This chapter has briefly reviewed Plato's distinction between knowledge and opinions and the role that certainty plays in distinguishing them. It has then introduced two related concepts from modern social science, objective and subjective knowledge. Finally it has sketched how both can be employed to model the complex

relationships between information seeking, subjective health knowledge, health literacy, and empowerment to explain health behavior. The sketch shows that ancient philosophy can help understand and conceptualize contemporary variable-oriented modeling.

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