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Critical Thinking: The Art of Socratic Questioning By Richard Paul and Linda Elder

Socratic questioning is disciplined questioning that can be used to pursue thought in many directions and for many purposes: to explore complex ideas, to get to the truth of things, to open up issues and problems, to uncover assumptions, to analyze concepts, to distinguish what is known from what is not known, and to follow out logical implications of thought. The key to distinguishing it from other types of questioning is that Socratic questioning is *systematic*, *disciplined*, and *deep* and usually focuses on foundational concepts, principles, theories, issues, or problems.

Teachers, students, or indeed anyone interested in probing thinking at a deep level can and should construct Socratic questions and engage in Socratic dialogue. The purpose of using Socratic questioning in teaching may be to probe student thinking; to determine the extent of their knowledge on a given topic, issue, or subject; to model Socratic questioning for them; or to help them analyze a concept or line of reasoning. In the final analysis, students should learn the *discipline* of Socratic questioning, so that they begin to use it in reasoning through complex issues, in understanding and assessing the thinking of others, and in determining the implications of what they and others think.

In teaching, Socratic questioning can be used for at least two purposes:

- To deeply probe student thinking and help students begin to distinguish what they know or understand from what they do not know or understand (and thereby help them develop intellectual humility) and
- To foster students' abilities to ask Socratic questions and help students acquire the powerful tools of Socratic dialogue so that they can use these tools in everyday life (in questioning themselves and others), To this end, it is important to model the questioning strategies mentors want students to emulate and employ. Moreover, students need direct instruction regarding how to construct and ask deep questions.

Socratic questioning teaches the importance of questioning in learning (indeed Socrates himself thought that questioning was the only defensible form of teaching). It teaches the difference between systematic and fragmented thinking. It promotes digging beneath the surface of ideas and valuing the development of questioning minds to cultivate deep learning.

The art of Socratic questioning is intimately connected with critical thinking because the art of questioning is important to excellence of thought. What the word "Socratic"

adds to the art of questioning is systematicity, depth, and an abiding interest in assessing the truth or plausibility of ideas.

Both critical thinking and Socratic questioning share a common end.

Critical thinking provides the conceptual tools for understanding how the mind functions (in its pursuit of meaning and truth); Socratic questioning employs those tools in framing questions essential to the pursuit of meaning and truth. The goal of critical thinking is to establish an additional level of thinking, a powerful inner voice of reason. Socratic discussion cultivates that inner voice through an explicit focus on self-directed, disciplined questioning.

In this and the next few columns, we focus on some of the mechanics of Socratic dialogue, the conceptual tools that critical thinking brings to Socratic dialogue, and the importance of questioning in cultivating the disciplined mind. Through a critical thinking perspective, we offer a substantive, explicit, and rich understanding of Socratic questioning.

A Taxonomy of Socratic Questions Based on Critical Thinking Concepts

To formulate questions that probe thinking in a disciplined and productive way, one must understand thinking, how it works, and how it should be assessed. Critical thinking provides the tools for analyzing and assessing reasoning. This is why understanding critical thinking is essential to effective Socratic dialogue. This column will focus on the analysis of reasoning.

Questions that Target the Parts of Thinking

Using analytic questions in Socratic dialogue is foundational to comprehension and to probing reasoning. To analyze, thinkers break a whole into parts because problems in a "whole" are often a function of problems in one or more of its parts. Success in thinking depends on the ability to identify the components of thinking why asking questions focused on those components. One powerful way to discipline questions, then, is to focus on the components of reasoning, or parts of thinking

When formulating questions, consider the following guidelines and sample questions:

1. *Goals and purposes.* All thought reflects an agenda or purpose and cannot be fully understood prior to understanding the agenda behind it.

Some of the many questions that focus on purpose in thinking include:

- What is the intended purpose right now?
- What was the purpose when that comment was made?
- Who is the audience and in what *vffay* will they be persuaded?
- What is the purpose of this assignment?
- What does the task attempt to accomplish here?
- What is the central aim or task in this line of thought?
- What is the purpose of this chapter, relationship, policy, law?
- What is the central agenda? What other goals need to be considered?

2. *Questions.* All thought is responsive to a question. Assume that no thought is fully understood until one understands the question that gives rise to it. Questions that focus on questions in thinking include:

- Exactly what question being raised is unclear? Please explain.

- What are the main questions that guide personal behavior in this or that situation?
- Is this question the best one to focus on at this point, or is there a more pressing question to address?
- The question in my mind is this... Do you agree or do you see another question at issue?
- Should the question (problem, issue) be put this way... or that...?
- From a conservative viewpoint the question is...; from a liberal viewpoint it is... Which is the most insightful way to put it?
- What questions might not be included which should be asked?

3. *Information, data, and experience.* All thoughts presuppose an information base. Assume that no thought is fully understood until the background information (facts, data, experiences) that supports or informs it is clear. Questions that focus on information in thinking include:

- What information provides the basis for comment?
- On what experience is this conviction based? Could it be distorted?
- Is there any proof that this information is accurate? Can it be verified?
- Is there any information or data that has not been considered?

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- What are these data based on? How were they developed? Is the conclusion based on hard facts or soft data?

4. *Inferences and conclusions.* All thought requires the making of inferences, the drawing of conclusions, the creation of meaning. Assume that no thought is fully understood until one understands the inferences that have shaped it. Questions that focus on inferences in thinking include:

- How was the conclusion reached?
- Can the reasoning used be explained?
- Is there an alternative plausible conclusion?
- Given all the facts, what is the best possible conclusion?

5. *Concepts and ideas.* All thought involves the application of concepts.

Assume that no thought can be fully understood until one understands the concepts that define and shape it. Questions that focus on concepts in thinking include:

- What is the main idea used in this reasoning? Can the idea be explained?
- Is the appropriate concept focused upon, or should the problem be reconceptualized?
- Are more facts or rethinking about how the facts are labeled necessary?
- Is the question a legal, a theological, or an ethical one?

6. *Assumptions.* All thought rests upon assumptions. Assume that no thought can be fully understood until one understands what it takes for granted. Questions that focus on assumptions in thinking include:

- What exactly is taken for granted here?
- Why is that assumption made? Shouldn't one rather assume that...?

« What assumptions underlie the central point of view? What alternative assumptions might be made?

7. *Implications and consequences.* All thought is headed in a direction.

It not only begins somewhere (in assumptions), it also goes somewhere (has implications). Assume that no thought can be fully understood unless one knows the

most important implications and consequences that follow from it. Questions that focus on implications in thinking include:

- What is implied when one says...?
- If one does this, what is likely to happen as a result?
- Are the implications that...?

- Have the implications of this policy (or practice) been considered?

8. *Viewpoints and perspectives.* All thought takes place within a point of view or frame of reference, Assume that no thought can be fully understood until one understands the point of view that places it on an intellectual map. Questions that focus on point of view in thinking include:

- What point of view is assumed?
- Is there another point of view that should be considered?
- Which of the possible viewpoints makes the most sense in the situation?

Conclusion

In the next few columns we will introduce additional foundational concepts in critical thinking and exemplify questions that are implied by understanding and using those foundations. When teachers routinely use the tools of critical thinking in Socratic dialogue, discussions become more disciplined and fruitful, and students learn the importance of questioning in learning, They are then better able to formulate and pursue deep and significant questions in their other classes and in the numerous domains of their lives.

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