

## Asking the Right Kind of Question Promotes Learning During Discussion

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Suppose, in your Economics Principles course, you wish students to read and discuss the first three chapters of *An Inquiry into the Nature and Causes of the Wealth of Nations* (hereafter *Smith*). Here are three discussion questions you could ask.

Does Adam Smith take adequate account of the alienation of labor when he says that “the greatest improvement in the productive powers of labour...seem(s) to have been the effects of the division of labor”?

What is the difference between the pin production process in a small and in a large factory?

What, according to Adam Smith, is the connection between trade and the division of labour?

Is one of these questions better than the others? In this essay, I explain why the third question is the superior alternative. To properly consider my arguments, readers should have recently read or be very familiar with the first three chapters of *Smith*.<sup>2</sup>

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<sup>2</sup> *An Inquiry into the Nature and Causes of the Wealth of Nations* is available on line at <http://www.econlib.org/library/Smith/smWN.html>. I use a Book-Chapter-Paragraph format to reference passages in Smith. For example, I.1.2 refers to the second paragraph of the first chapter of the first book.

## **What is Discussion?**

What exactly does it mean to use discussion as a teaching strategy? Educators agree that discussion involves, at its core, the active participation of students in the development of course ideas. For example, Nilson (1998, p. 87) defines discussion as “...a productive exchange of viewpoints, a collaborative explanation of issues.” And Bergquist and Phillips (1989, p. 19) say that discussion is an “...opportunity for pooling of ideas, experience, and knowledge.”

Educators are also clear on the importance of organizing discussion well and targeting it to learning objectives. Nilson (1998, p. 87) emphasizes that the instructor must steer discussion toward appropriate objectives to keep it from degenerating “...into a free-association, free-for-all bull session.” McKeachie (2002, p. 32) lists “making progress ...toward course objectives” as an important problem that instructors must face when they teach by discussion. Frederick (1989, p. 10) says: “The primary goal in any discussion is to enhance the understanding of some common topic or ‘text’....” Lowman (1984, p. 120) emphasizes that discussions “... must be well planned in order to be effective.”

Educators also agree that successful discussions require certain instructor behaviors. Royse (2001, pp. 39-40) says that instructors must “...create a climate where the exchange of ideas is welcomed—where students get to speak, make comments, or ask questions frequently, not just in the last five minutes...” According to Royse (p. 40), instructors should explicitly state their expectation that students share ideas on the syllabus and at the first class meeting and follow through to encourage participation at each class session. Nilson (1998, p. 89-90) emphasizes the importance of learning student names, arranging chairs so that students can see one another, helping students to know one another, and using the right kind of body language

during discussion. Lowman (1984, pp. 120-1) says that “Leading an excellent discussion demands just as much stage presence, leadership, and energy as presenting a lecture—and considerably more interpersonal understanding and communication skill.” McKeachie (2002, p. 51) points out that “...discussion differs from lecturing because you never know what is going to happen.” It follows that discussion leaders must be able to adapt quickly to ever changing classroom conditions.

Educators are less clear on the proper format for discussion. Royse (2001, p. 70) describes discussion as an environment where “...students are encouraged to pose questions and interact with one another and the instructor.” Lowman says that “...a useful classroom discussion ...consists of student comments separated by frequent probes and clarifications by the teacher that facilitate involvement and development of thinking by the whole group” (p.119) and later observes that the “...most common type of discussion is the kind in which instructors ask in the midst of lectures for student comments on specific issues”(p.127). Cannon and Newble (2000, pp. 39-40) suggest that discussion is essentially a small-group strategy where all present participate. Bergquist and Phillips (1989) offer 13 different formats for discussion including buzz groups, panels, symposia, and debates.

I define discussion in a more formal way than is typical of educators. For me, discussion is inquiry into the meaning of a text that students and instructors have read and thought about earlier. In my model, the discussion leader has carefully prepared and distributed discussion questions in advance. In my model, the discussion leader serves as a facilitator rather than as a participant during discussion. Chapters 1-5 of Hansen and Salemi (2005) provide a detailed

explanation of the model of discussion that I use in my teaching.<sup>3</sup> The educator most closely associated with the discussion format that I use is Mortimer Adler. The next section presents my adaptation of Adler's ideas to the economics classroom.

### **The Importance of Interpretive Questions in Discussion**

Mortimer Adler, one of the great philosophers and educators of the twentieth century, became interested in the "great thinkers" when he learned that John Stuart Mill read Plato as a child. After dropping out of school and reading the great thinkers on his own, Adler studied philosophy at Columbia University. He later co-founded "The Center for the Study of the Great Ideas" and helped publish "The Great Books of the Western World."

In *How to Read a Book: The Classic Guide to Intelligent Reading*, Adler recounts an experience he had while teaching theology.

I asked a student what St. Thomas had to say about the order of the passions. He quite correctly told me that love, according to St. Thomas, is the first of all the passions and that the other emotions, which he named accurately, follow in a certain order. Then I asked him what it meant to say this. He looked startled. Had he not answered my question correctly? I told him he had, but repeated my request for an explanation. He had told me what St. Thomas *said*. Now I wanted to know what St. Thomas *meant*. The student tried, but all he could do was to repeat, in slightly altered order, the same words he had used to answer my original question. (Adler and Van Doren, 1972, p. 36)

As the quote suggests, Adler's approach to literature rests on asking discussants what the author meant. That, too, is the approach I use in classroom discussion. But what kind of questions prompt students to investigate an author's meaning?

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<sup>3</sup>Whatever the definition of discussion, Becker and Watts (1998, p.5) make clear that few economics instructors use discussion in their classes. Instructors spend over 80 percent of the time lecturing in all sorts of economics classes at all sorts of academic institutions.

Hansen and Salemi (2005) argue that there are three types of discussion questions: factual, evaluative, and interpretive. Factual questions ask for facts. Evaluative questions ask for judgements. Interpretive questions ask what the author meant.

Here are examples of factual, evaluative, and interpretive questions based on the first three chapters of *Smith*. “What are the different jobs involved in the manufacture of a pin?” is a factual question. It can be answered by a recitation of Smith’s words in paragraph 3, chapter 1, book 1 (I.1.3).

Starting discussion with a factual question is a bad strategy, in part because discussion ends as soon as a student recites the proper words. Asking a battery of factual questions amounts to drilling students about their knowledge of the words in a text. Asking factual questions promotes neither an investigation of the meaning of the author’s words nor an exchange of ideas about those words.

“Is the propensity to ‘truck, barter, and exchange one thing for another’ (I.2.1) uniquely human?” is an evaluative question that asks whether discussants believe that only humans engage in trade. Discussants will answer the question not by offering evidence from *Smith* but by offering evidence from their own experience and background. A zoology major may cite scholarly articles about group behavior of lions. An avid hunter may offer stories about his dogs. The possibilities are endless.<sup>4</sup>

Starting discussion with an evaluative question encourages participation because most people have opinions about most issues. But starting a discussion with an evaluative question

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<sup>4</sup>“Does Smith believe that the propensity to truck, barter and exchange is uniquely human?” has the appearance of an interpretive question but, in fact, is a factual question because Smith’s words in I.2.2 make his view completely clear.

rarely leads to investigation of an author's meaning because it invites participants to answer from their own background and experience rather than from the text. It drives participants apart rather than bringing them together in a collective investigation of the author's meaning based on common information, the author's words.

“Why, according to Smith, is the division of labor limited by the extent of the market?” is an interpretive question. It asks discussants what Smith means by his words, in this case the title to Book I, Chapter 3. Asking an interpretive question is an excellent way to begin discussion because it invites discussants to explain how Smith connected these two ideas.

To appreciate the advantages of beginning discussion with an interpretive question, readers need only consider how students might answer. The instructor might first make sure that students agree on the meaning of “division of labor” and “extent of the market.” To interpret the former phrase, students might explain Smith's pin factory example (I.1.3) or the many other examples Smith provides in chapter one. As students provide their interpretations, the instructor can ask what the cited examples have in common and what the precise meaning of “division of labor” should be. The instructor might also ask why Smith says that division of labor is more likely in manufacturing than in agriculture (I.1.4).

To interpret “extent of the market,” students can cite a variety of evidence. Some will refer to what Smith calls the human “...propensity to truck, barter, and exchange” (I.2.1). Others will point out that Smith thinks that humans are the only animals that cooperate in meeting their objectives (I.2.2). Others may refer to Smith's explanation of why a porter can be fully employed only in a city and not in a village or town (I.3.2). Still others may link “extent of the market” to Smith's explanation of the importance of water ways to economic development

(I.3.3-7). Because Smith speaks broadly about the “extent of the market” students can learn a lot by explaining how his various examples and passages fit together.

Once students have clarified their understanding of “division of labor” and “extent of the market,” they are ready to connect the two ideas by explaining why division of labor is limited by the extent of the market. Again, Smith provides a lot of evidence. One student may contrast Smith’s description of economic life in the Scottish Highlands (I.3.2) where scattered farmers must each function as butchers, bakers, and brewers with the specialization that occurs in a large city (I.2.2). Another may conclude that rivers were important to economic development precisely because they allowed, through cheap transport of goods, division of labor and the resulting improvement in human productivity. Still others may point out that Smith explains that the rivers in Holland provide more practical transport than the rivers in Africa (except the Nile) and concludes that Holland developed more rapidly because better transport made division of labor more practicable.

Let’s take stock for a moment. Beginning discussion with a factual question leads to a dead end—the recitation of the wanted fact. Beginning discussion with an evaluative question leads to lots of participation but invites participants to leave the text and cite their own experiences. Beginning discussion with an interpretive question leads to what most of us want—an investigation of what Adam Smith meant when he said that division of labor is limited by the extent of the market.

Hansen and Salemi (2005) explain that factual and evaluative questions play important but subordinate roles in discussion. They recommend that discussion be organized around a “basic” interpretive question that gets at a set of ideas that the instructor wishes students to

explore. They suggest that factual questions should be used to call attention to key facts that student interpretations should respect and that evaluative questions can be used to bring closure to a line of inquiry. Hansen and Salemi further suggest that instructors prepare clusters of questions and distribute them to students prior to discussion.

Suppose you, as instructor, want students to investigate the connection between the division of labor and the extent of the market. What sort of question cluster might you prepare and what would be the role of factual and evaluative questions in their question cluster? Table 1 provides some possibilities.

| <b>Table 1<br/>Cluster of Questions for Chapters 1-3 of Smith</b> |  |
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| Learning Objective  | Students should be able to explain Smith’s argument that the division of labor is limited by the extent of the market  |
| Basic Question  | Why, according to Adam Smith, is the division of labor limited by the extent of the market?  |
| Supporting Questions  | What does Smith mean by the “division of labor”? By the “extent of the market”?  |
|   | How, according to Smith, does a comparison of a farmer in the Scottish Highlands and a porter in London, illustrate that division of labor is limited by the extent of the market? |
|   | How, according to Smith, are the Rhine and the Ganges different from the rivers of southern Africa and Siberia?  |
|   | What, according to Smith, is the connection between the development of water transportation and the extent of markets?   |
| Concluding Questions  | What examples of modern economic life best illustrate that the extent of the market limits the division of labor?  |
|   | What is the practical importance of Smith’s principle that division of labor is limited by the extent of the market?   |

As Hansen and Salemi recommend, the basic question is an interpretive question. Supporting

questions help discussants break the basic question into more manageable chunks and make sure that they address all aspects of the question that the instructor thinks they should. In the example, the first, second and fourth supporting questions are interpretive. The third supporting question is factual since Smith provides a clear answer to the question in I.3.6 and I.3.8. The concluding question helps the instructor draw closure to discussion of the basic question without resorting to lecture. In Table 1, the first concluding question asks for student opinion about modern examples of Smith's important principle while the second asks students whether they believe that Smith's principle is important.

Factual and Evaluative questions have their place in discussion but their role is subordinate to the role of interpretive questions. The discussion leader asks interpretive questions so that students better understand the economic arguments of the author. The leader asks factual questions to make sure that student comments respect the facts present in the reading. The leader may ask an evaluative question so that students transfer their understanding of the author's arguments to a new context. Or the leader may simply wish to "reward" discussion participants for skillful interpretation by asking their opinion.

### **Not All Interpretive Questions Are Suitable for Discussion**

Asking an interpretive question is necessary but not a sufficient for valuable classroom discussion. Questions that lead to fruitful discussion satisfy four criteria. First, the question should truly ask for an interpretation of the author's meaning and not simply a recitation of the author's words. "How, according to Smith, does a pin factory illustrate the benefits of division of labor?" has the appearance of an interpretive question. But a careful reading will show that

Smith's words in I.1.3 settle the issue. "Why is the division of labor limited by the extent of the market?" is an interpretive question because there is an abundance of evidence in the first three chapters that can be brought to bear on the question and because Smith himself never provides a succinct and definitive answer. Thus, students will learn far more economics by trying to answer the second question than they will trying to answer the first.

A good interpretive question should be answerable with evidence present in the assigned reading. A mistake that instructors frequently make is to ask questions that reach beyond the assigned reading. When they do, they create a situation where few if any students can answer the question and where the instructor faces a strong temptation to fill in the missing gaps via lecture. Discussion is more beneficial to students when it focuses on questions that all may answer from their common information—the assigned reading and information that they have learned earlier in the course. A good discussion question creates a level playing field.

"Does Adam Smith take adequate account of the alienation of labor when he says that 'the greatest improvement in the productive powers of labour...seem(s) to have been the effects of the division of labor'?" is an example of a discussion question that fails the second test. While we may want our students to think critically about the workplace that Smith envisions once division of labor has occurred, reading Smith alone does not permit students to undertake a critical appraisal. In fact, students are unlikely to know what it means for labor to be "alienated." If student have also read Marx on the alienation of labor, using this question makes a lot more sense. "Why, according to Adam Smith, is the division of labor limited by the extent of the market?" is a question that students can answer based on Smith alone

A third criterion satisfied by a good interpretive question is that the question is

interesting. Discussion requires a lot of scarce classroom time. For the benefits of discussion to outweigh the costs requires that students participate energetically in the search for answers. One of the best ways to promote participation is to ask questions that stimulate curiosity. If the instructor is curious, it is likely that students will be curious, interested, and engaged.

The energy created by student curiosity is another important reason to begin discussion with a well crafted interpretive question. It is not difficult to imagine how dull the classroom would be if an instructor asked students to recite the rivers named by Smith. It is likewise not difficult to imagine that students may be excited by an invitation to connect the two most important ideas in the first three chapters of Smith. Sometimes prompting is necessary. To raise interest the instructor might preface discussion by saying: “Those who favor free trade often cite Adam Smith to support their position. Today, we have an opportunity to investigate what Smith has to say about the benefits of trade. Doing so should help us better know our own minds the next time we read about an anti-trade demonstration.”

Finally, a good discussion question should be sufficiently rich that it, at first, appears ambiguous. Discussion provides students with the opportunity to form answers using their own language, to compare their answers to those offered by other students, and to revise their answers in light information gathered in the course of discussion. For these potential benefits to be realized requires that students participate. The first cogent answer offered should be a beginning rather than an end to a line of investigation. Put another way, students should believe that there is room for their own interpretation after someone has offered theirs. For this kind of dynamic to develop in a classroom, the instructor must ask questions that can be answered in different ways.

Is the basic question in Table 1 sufficiently rich? Consider how students might answer.

One student may explain that the workers in a pin factory could never use all the pins they produce and conclude that the factory can only be viable in a situation where the factory supplies pins to many individuals and other firms. A second could contrast Smith's example of a London porter and a Scottish Highlands farmer. In London, the porter can specialize because there are many individuals who can use his services. In the Scottish Highlands, households are so far apart that it is too costly for one to make beer or bread for another. A third student could point out Smith's argument that economies developed more rapidly when they were located along rivers that made transportation of goods less costly. In short, the reading and the question invite a variety of interpretations.

### **Summing Up**

Why is the third question offered in the introduction superior? The first question, which asks whether Smith takes adequate account of the alienation of labor, is not appropriate for discussion of Chapters 1-3 because it cannot be answered by evidence available in those chapters. It does not ask for an interpretation of Smith but for a judgement, and in some contexts a judgement that students would be ill equipped to provide. Nor is the second question, which asks about the difference between pin production in a large and small factory, appropriate. The question is simply not rich enough. Once students have cited Smith's words from paragraph I.1.3 discussion must end. The third question, which asks how Smith connects trade and the division of labor is suitable for discussion. The question is truly interpretive, can be answered with evidence in Chapters 1-3, supports a variety of interpretations, and is interesting.

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