

## CHAPTER 6

### EDUCOLOGY AND SOME RELATED CONCEPTS: A DIALOGUE

James E. Christensen

\* \* \* \* \*

*TRANSITION:* Professor Maccia, in Chapter 2, pointed out that the way in which education is conceived determines the form of inquiry about education. This is also true of knowledge. That is, the way in which knowledge is conceived determines what categories of knowledge can be distinguished, and it determines which forms of inquiry are appropriate for those categories. (This is, of course, the issue that both Monshower and Steiner treat in Chapters 4 and 5, respectively.) For example, knowledge conceived as adequate representations of states of affairs permits things other than true statements to count as knowledge, e.g., paintings, pieces of sculpture, photographs. It also allows activities directed toward producing those adequate representations to count as inquiry, e.g., taking a photograph, making a sculpture, composing a piece of music. This conception of knowledge as adequate representations is the one that was followed in Chapter 5.

A second conception of knowledge is possible. It can be conceived as true statements about states of affairs. One consequent of this conception is that knowledge is located only in language, not in physical objects such as paintings, sculpture, or photographs. A second consequent is that it permits only the category of quantitative knowledge, and not those of qualitative and performative knowledge. A third is that it permits a sharp distinction between the concepts of knowledge and knowing. Whereas knowledge is located in language, knowing is located in persons. Knowledge is language which has a relationship of consistency with states of affairs. Knowing is a condition of a person having realized the ability to do something adequately. Knowing therefore relates closely to performing, and knowledge relates closely to declarative sentences. On the point that knowledge conceived as true statements permits only quantitative knowledge, this is so because language does not describe the unique. Concepts denote categories, and statements unavoidably quantify states of affairs. Thus, qualitative knowledge, or true statements about unique states of affairs -- states that can not be classified as a kind -- is ruled out. Moreover, performative knowledge, or true statements about performances, is not a distinct category from true statements about states of affairs, because performances is one category of states of affairs. Performances, objects, relations -- these are all implied by the concept of states of affairs.

In Chapter 6, the conception of knowledge as true statements is used to develop some of the implications of the concept of educology, or knowledge about education. The ideas in this chapter are therefore derivative of Professor Steiner's conception of educology as knowledge about education. However, they differ with respect to her conception of know-

## EDUCOLOGY AND SOME RELATED CONCEPTS

*ledge. In this chapter, 'knowledge' is used to mean and only mean 'true statements' -- not 'representations of states of affairs'.*

\*\*\*\*\*

Teacher: Suppose that I write these two words side by side:

sociology                      society

Do they mean the same thing to you?

Student: No, to me, the word 'society' means a group of people, and the word 'sociology' means knowledge about society.

T: What you say is true. The suffix '-logy' means knowledge, and thus words ending in '-logy' generally mean knowledge about something. Hydrology means knowledge about water. Biology means knowledge about living organisms. And sociology, of course, means knowledge about society. Let me show you something else. I'll write the word 'education' under the words 'sociology' and 'society'.

sociology                      society  
education                      education

What are the two senses of education that are implied here?

S: I don't see what you are getting at.

T: The term 'education' is sometimes used to mean 'the process of teaching and studying', and it sometimes is used to mean 'knowledge about the process of teaching and studying'. This second meaning is intended in expressions like 'Faculty of Education' and 'Masters Degree in Education'. Suppose that the word 'sociology' had not yet been invented, and that we used the term 'society' to mean 'groups of people' and also to mean 'knowledge about groups of people'.

~~sociology~~                      society  
society

What probably would be one of the results?

S: Confusion. People would not know whether you were talking about groups of people or knowledge about groups of people.

T: I am compelled to agree. Now look at the term 'education'. That word is being overworked. It can not effectively do the job that we want it to do, because it does not consistently distinguish between the concept of 'teaching and studying' and the concept of

## EDUCOLOGY AND SOME RELATED CONCEPTS

'knowledge about teaching and studying'. Suppose that we do with the word 'education' what we have done with the word 'society'. Suppose that we add '-logy' to the word 'education' in order to form the word 'educology'.<sup>1</sup>

sociology	society
<del>education</del>	education
educology	

What might be a result?

- S: When people saw the two words together, they could easily understand that 'educology' meant 'knowledge about education' and 'education' meant 'the teaching and studying process'.
- T: What is your major study now?
- S: Primary education . . . . Oh! I see! My major study is educology. I'm studying knowledge about teaching and studying in primary schools.
- T: Yes, the term 'educology' names the general body of knowledge about the educational process, and your specialization is the educology of teaching and studying in primary schools. The term 'primary education' names the object of knowledge.
- S: What is an object of knowledge?
- T: That is the set of events, or set of phenomena, or set of processes about which knowledge is formed.
- S: What you did with educology and primary education, does that work with other education studies?
- T: Well, let's try it. Suppose your major studies were secondary education. You would then be studying knowledge about the process of teaching and studying in secondary schools. The knowledge could be called the educology of teaching and studying in secondary schools. The term 'secondary education' names the object. The term 'educology' names the knowledge about the object.
- S: Why couldn't you simply say 'the educology of secondary education'?
- T: You could. The meaning would be the same.
- S: And what about shortening the term even further by saying 'secondary educology'? Would that make sense?
- T: Yes, it seems so. We use terms like 'urban sociology' to mean 'knowledge about urban society', so it would be sensible to say 'secondary educology' to mean 'knowledge about secondary education'.

## EDUCOLOGY AND SOME RELATED CONCEPTS

- S: Then, I could say that my major is primary educology.
- T: Right. Likewise, we could say 'higher educology' for 'knowledge about higher education', 'early childhood educology' for 'knowledge about early childhood education', 'science educology' for 'knowledge about science education', and so forth.
- S: How would you change foundations of education and comparative education? Would you say 'foundations of educology' and 'comparative educology'?
- T: Those are a bit more complicated cases. Let's work with those cases after we have considered some less complex examples. For instance, consider the term 'College of Education'. Is that term intended to mean 'College of Teaching and Studying' or 'College of Knowledge about Teaching and Studying'?
- S: The College of Knowledge about Teaching and Studying.
- T: Yes, it seems so. If that is true, then what single word could we substitute for the word 'education' in the term 'College of Education'?
- S: 'Educology'. The name of the College would be the College of Educology.
- T: It surely would. Do you see any advantages to that name?
- S: Well, for one thing, the name 'College of Educology' would make it clear that the College was committed to teaching, studying, and extending knowledge about teaching and studying. My history professor said the other day that the College of Education had no legitimate reason for being part of the faculty of the university because everyone in the university is engaged in education. It is apparent to me now that he was thinking of the College of Education in the sense of 'College of Teaching and Studying'. He certainly could not validly make the claim that everyone on campus was engaged in studying and extending knowledge about the teaching and studying process. And it would be clear to him that the College of Education was an institution which engaged in study of knowledge about teaching and studying, if the College were named the College of Educology.<sup>2</sup>
- T: That would seem to be so. Now consider the name of a professional society, such as the American Educational Studies Association. What term in the name of that society could be replaced by the term 'educology'?<sup>3</sup>
- S: The term 'educational studies' could. If that substitution were made, then the society could be called the American Educology Association. But what would be the advantage in that change? The term 'educational studies' already indicates what the association is about.

## EDUCOLOGY AND SOME RELATED CONCEPTS

- T: The advantage would be much like the advantage which is gained in using the term 'sociology' rather than 'social studies'. The concept of 'studies' relates to the activity of intending to acquire knowledge about something, and the concept of 'social studies' relates to undertaking activities to acquire knowledge about society. The term 'sociology' names a fund of knowledge that can be acquired through the activity of social studies. Sociology implies a specific fund of knowledge and certain sets of rules or standards for conducting inquiry to extend that fund of knowledge.
- S: But that's exactly my point. The concept of 'educational studies' implies a family of disciplines which are used to study about teaching and studying, so the term 'educational studies' is the appropriate one to use. Education is not a discipline on its own. It borrows from other disciplines.
- T: It is true enough to say that education is not a discipline, if we mean by the term 'education', the process of intentionally guiding and of intentionally undertaking to be guided in the process of learning something. Also education studies does not necessarily imply a discipline. The concept of 'education studies' functions much like the concept of 'social studies'. Education studies is the activity of intentionally undertaking to acquire knowledge about the process of education, either under the guidance of a teacher or independently, without guidance. The fund of knowledge about the process of education, as we have already established, can be named 'educology'. The concept of 'educology' necessarily does imply a discipline, and that is one of the advantages of using the term 'educology'.
- S: If the concept of 'educology' implies a discipline, then how does the discipline of educology differ from disciplines such as educational psychology, or the history of education, or educational sociology?
- T: We need to distinguish between discipline and fund of knowledge. A discipline is a set of rules or standards that are followed in making knowledge claims about something. A fund of knowledge is a set of statements which characterizes and relates some state of affairs (i.e., some set of phenomena or occurrences or processes). The successful use of discipline produces knowledge.
- S: But what about my question? How does the discipline of educology differ from disciplines such as sociology of education?
- T: The term 'sociology of education' names a fund of knowledge rather than a discipline. The term 'discipline of sociology' names a discipline. Sociology and educology as funds of knowledge differ with respect to the object of knowledge, but not with respect to the discipline (i.e., rules, standards) that are used to make knowledge claims. The discipline of sociology and educology are the same, along with anthropology and psychology.

## EDUCOLOGY AND SOME RELATED CONCEPTS

S: What do you mean?

T: A fund of knowledge can be distinguished with reference to its object. How is hydrology distinguished, for example? -- With reference to its object -- water. Likewise, the fund of knowledge about education can be distinguished with reference to its object -- the teaching and studying process. Educology names all of the fund of knowledge about education. Sociology names all of the fund of knowledge about society.

S: But don't the two, sociology and educology, imply different disciplines?

T: No. Analytic, empirical, and normative knowledge claims require the same standards for judging their truth value regardless of whether the knowledge is about education, society, mental processes, or culture. Claims which require the same standards require the same discipline, since the discipline is the set of standards.

S: Then, are you claiming that there is no difference between sociology and sociology of education?

T: No. There is a difference. The term 'sociology of education' functions ambiguously. Sometimes it is used to intend 'knowledge about the effects of education upon society'. At other times, it is used to intend 'knowledge about the effects of society upon education'. In the first sense, society is being conceived of as the dependent variable, and this sense of 'sociology of education' relates more closely to sociology than educology. Educology treats the phenomenon of education as the dependent variable, thus the second sense of 'sociology of education' relates more closely to educology than to sociology. A way to clear up this ambiguity is to rename this second sense of 'sociology of education' the 'educology of society' meaning 'knowledge about the effects of society upon education'. The educology of society is a subfund of the fund of knowledge about education, thus it is a subset of educology. This can be represented in a set of figures:

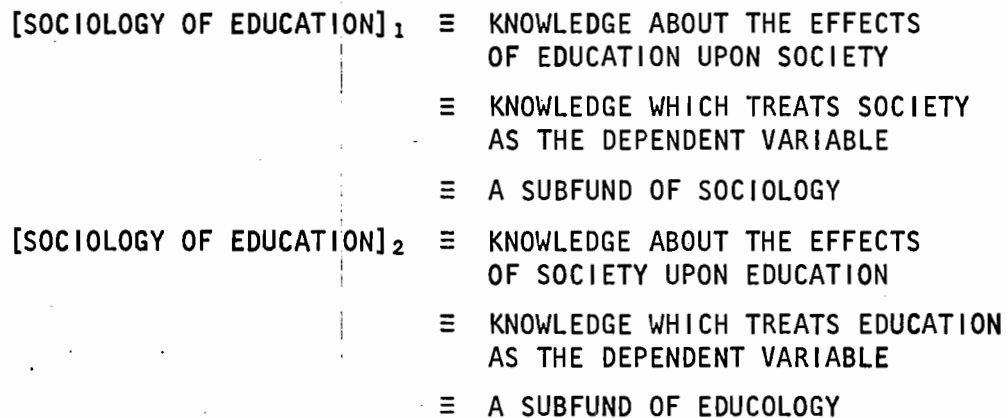


FIGURE 6.1

Two Senses of Sociology of Education

S: Is this true of educational psychology as well? Is it a subfund of educology?

## EDUCOLOGY AND SOME RELATED CONCEPTS

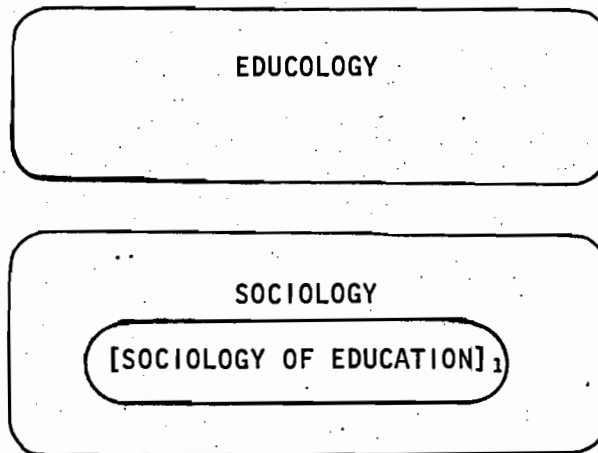


FIGURE 6.2

The Relationship of Educology, Sociology, and [Sociology of Education]<sub>1</sub>, Conceiving Society as the Dependent Variable

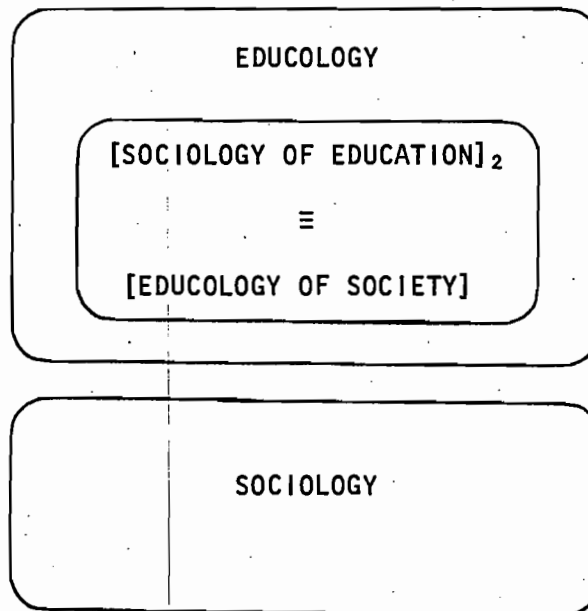


FIGURE 6.3

The Relationship of Educology, Sociology, and [Sociology of Education]<sub>2</sub>, Conceiving Education as the Dependent Variable

## EDUCOLOGY AND SOME RELATED CONCEPTS

T: Yes, it is. The argument is the same for educational psychology as for sociology of education. The term 'educational psychology' functions much like the term 'sociology of education'. It is ambiguous. It is used in at least two senses: (1) knowledge about the effects of education upon mind and mental processes, and (2) knowledge about the effects of mind and mental processes upon education. In the first sense, mind and mental processes are being conceived as the dependent variables. In the second sense, education is being conceived as the dependent variable. The second sense relates most closely to educology, and the first sense relates most closely to psychology. Again, the ambiguity can be resolved by renaming the second sense of educational psychology, 'the educology of mental processes'. The term 'educational psychology' in this second sense names part of the fund of knowledge about education, but it does not name the entire fund. The term 'educology' does that -- i.e., names the entire fund. The term 'educational psychology' in the first sense does not name part of the fund of knowledge about education at all. Rather, it names part of the fund of knowledge about mind and mental processes.

[PSYCHOLOGY OF EDUCATION] <sub>1</sub>	≡	KNOWLEDGE ABOUT THE EFFECTS OF EDUCATION UPON MENTAL PROCESSES
	≡	KNOWLEDGE WHICH TREATS MENTAL PROCESSES AS THE DEPENDENT VARIABLE
	≡	A SUBFUND OF PSYCHOLOGY
[PSYCHOLOGY OF EDUCATION] <sub>2</sub>	≡	KNOWLEDGE ABOUT THE EFFECTS OF MENTAL PROCESSES UPON EDUCATION
	≡	KNOWLEDGE WHICH TREATS EDUCATION AS THE DEPENDENT VARIABLE
	≡	A SUBFUND OF EDUCOLOGY

FIGURE 6.4

### Two Senses of Psychology of Education

- S: I think I see how psychology of education can be regarded as a sub-fund of educology, but I'm still troubled about what you said earlier.
- T: What was that?
- S: You said that sociology, psychology, and educology imply the same discipline. How can that be so?
- T: Look at it this way. Think of knowledge as true statements. A fund of knowledge is a set of true statements. Such sets can be sorted out with respect to what they are describing, characterizing, and/or explaining. This is the way that psychology, sociology, and educology are distinguishable -- with respect to their object.



## EDUCOLOGY AND SOME RELATED CONCEPTS

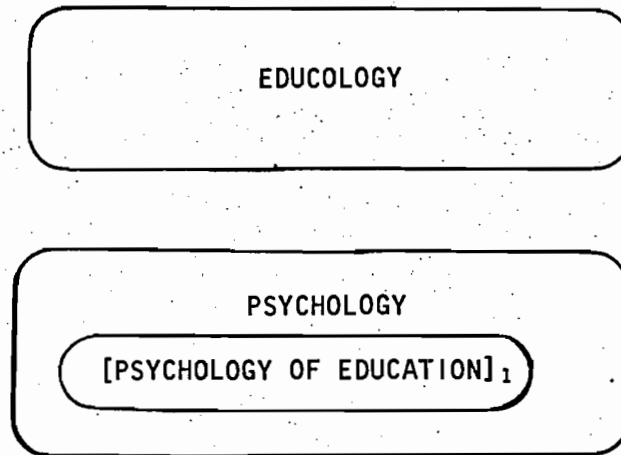


FIGURE 6.5

The Relationship of Educology, Psychology, and [Psychology of Education]<sub>1</sub>, Conceiving Mental Processes as the Dependent Variable

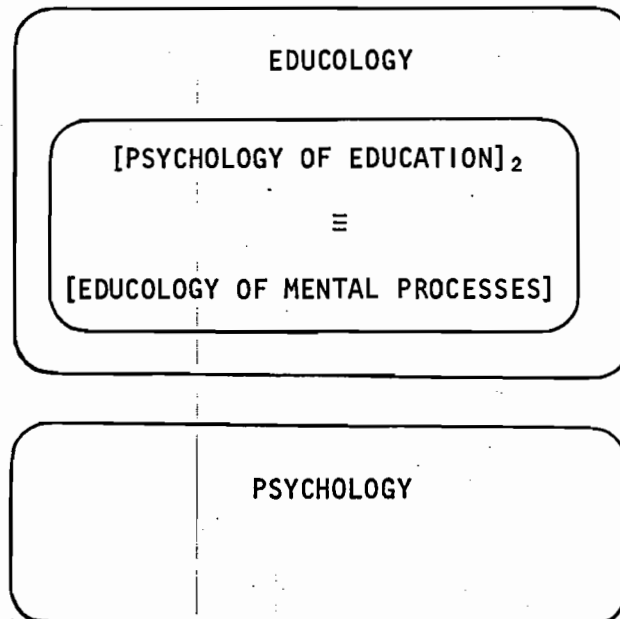


FIGURE 6.6

The Relationship of Educology, Psychology, and [Psychology of Education]<sub>2</sub>, Conceiving Education as the Dependent Variable

## EDUCOLOGY AND SOME RELATED CONCEPTS

OBJECTS OF KNOWLEDGE	SOCIETY	MENTAL PROCESSES	EDUCATION
FUNDS OF KNOWLEDGE	SOCIOLOGY	PSYCHOLOGY	EDUCOLOGY

FIGURE 6.7

Relationships Between Funds of Knowledge and Objects of Knowledge

- T: True statements can also be sorted with respect to the rules, or standards which we use in judging their truth value. These standards are our discipline. At least three sets of standards are distinguishable: (1) those for empirical statements; (2) those for analytic statements; and (3) those for normative statements. The standards for judging the truth value of an empirical statement, for example, are the same, regardless of whether the statement is about society (and thus, a sociological statement), or about mental processes (and thus a psychological statement), or about education (and thus an ed-ucological statement).

KNOWLEDGE	≡	TRUE STATEMENTS ABOUT SOMETHING
DISCIPLINE OF KNOWLEDGE	≡	STANDARDS REQUIRED FOR JUDGING THE TRUTH VALUE OF STATEMENTS

FIGURE 6.8

Knowledge and Discipline of Knowledge

KINDS OF TRUE STATEMENTS WITH RESPECT TO STANDARDS OF VERIFICATION [i.e., KINDS WITH RESPECT TO DISCIPLINE]	FUNDS OF TRUE STATEMENTS WITH RESPECT TO OBJECT OF KNOWLEDGE		
	SOCIOLOGY	PSYCHOLOGY	EDUCOLOGY
EMPIRICAL	EMPIRICAL SOCIOLOGICAL KNOWLEDGE	EMPIRICAL PSYCHOLOGICAL KNOWLEDGE	EMPIRICAL EDUCOLOGICAL KNOWLEDGE
ANALYTIC	ANALYTIC SOCIOLOGICAL KNOWLEDGE	ANALYTIC PSYCHOLOGICAL KNOWLEDGE	ANALYTIC EDUCOLOGICAL KNOWLEDGE
NORMATIVE	NORMATIVE SOCIOLOGICAL KNOWLEDGE	NORMATIVE PSYCHOLOGICAL KNOWLEDGE	NORMATIVE EDUCOLOGICAL KNOWLEDGE

FIGURE 6.9

Disciplines of Knowledge and Funds of Knowledge

## EDUCOLOGY AND SOME RELATED CONCEPTS

- S: But aren't sociology and psychology sciences?
- T: Many persons who claim to be producing sociology and psychology restrict themselves to producing scientific sociology and psychology. But the concept of sociology does not imply only scientific sociology. It implies all knowledge about society, and all means all possible kinds -- scientific and otherwise. The argument is the same for psychology.
- S: Then educology is a science, but more than a science?
- T: That is one way of saying it. Another way to say it is to say that the concept of educology implies any kind of knowledge about education, including scientific knowledge about education. It implies science, but it implies other kinds of knowledge besides scientific.
- S: What are some other kinds of knowledge about education besides scientific?
- T: The other kinds related to the categories I have just mentioned: -- the analytic, the normative, and the empirical.

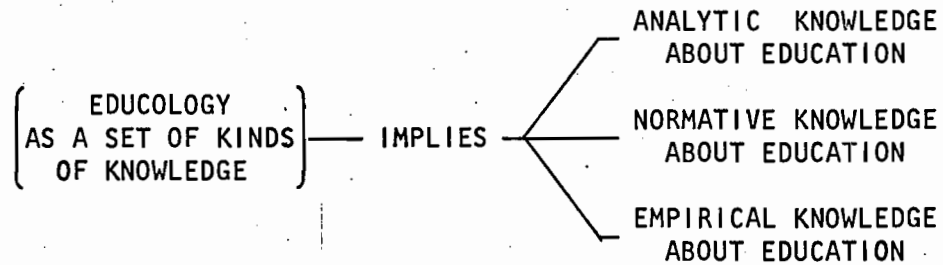


FIGURE 6.10

Kinds of Knowledge Implied by Educology

The category of analytic knowledge about education includes historical educology (or the history of education), analytic philosophical educology (or the analytic philosophy of education), and jurisprudential educology (or the jurisprudence of education). The category of normative knowledge about education implies normative philosophical educology (or the normative philosophy of education). And the category of empirical knowledge about education implies scientific educology (or the science of education) and praxiological educology (or the praxiology of education).

- S: What is the justification for making these distinctions?
- T: Well, as I have argued, knowledge, if conceived as true statements, can be categorized in at least three ways: -- (1) with respect to its object, (2) its standard of verification, and (3) its kind of evidence. The set of phenomena to which knowledge refers is the object of knowledge. We used the criterion of object of knowledge in

## EDUCOLOGY AND SOME RELATED CONCEPTS

distinguishing between sociology and educology, for example. Educology is knowledge about education. Sociology is knowledge about society. Society is the object of knowledge for sociology. Education is the object of knowledge for educology. Since education and society are different sets of phenomena, knowledge about the two sets can be categorized into two classes, and I called these classes 'funds of knowledge'.

- S: Yes, I follow that. Is the object of knowledge the criterion for distinguishing among analytic, normative, and empirical knowledge?
- T: No, those distinctions are possible with reference to the standards of verification and the kind of evidence for the knowledge.
- S: How do you use those criteria to distinguish categories of knowledge?
- T: Let's consider analytic knowledge first. It is verifiable by use of the standard of necessity reasoning. This means that statements which are asserted to be true analytically are claimed to be so because the statements are consistent with the evidence of the implications of language. History of education, for example, consists of knowledge about past educational events and behavior. The evidence for knowledge is the implication of the language of documents, such as diaries, memoirs, newspapers, legislative records, bills of sale, official reports, and the like.
- S: But isn't history of education a social science?
- T: I understand why you might believe that it is. It is true, of course, that you will find history often administratively grouped together with, for example, sociology and anthropology, and many people do call history a social science. While historical inquiry is about past social events of human beings, the evidence for its knowledge claims is the implication of language. Such evidence implies the use of the standard of necessity reasoning as the verification standard, and such evidence implies analytic knowledge claims. Scientific inquiry implies the assertion of empirical knowledge claims about what exists, based on actual observations. If time travel were a reality and a person could dart back and forth over the past to observe events, then history could be empirical knowledge. But historical inquiry relies upon the evidence of recollections, represented in language. Knowledge whose evidence is that of the implication of language is analytic, not empirical. Scientific knowledge is empirical.
- S: But, surely history of education is related to sociology of education, and sociology of education is a science!
- T: Recall the ambiguity of the term 'sociology of education'. And also recall the unnecessarily restricted sense of the term, 'sociology', that so many who claim to produce sociology use. The concept of sociology is like that of educology in that it implies all possible kinds of knowledge. Historical educology is one of those kinds. The

## EDUCOLOGY AND SOME RELATED CONCEPTS

way in which history of education, or historical educology, is related to sociology of education depends on what sense of sociology of education you mean. Which do you mean?

S: I hadn't thought about it at the time that I said it, but I suppose that I meant it in the sense of [sociology of education]<sub>2</sub>.

T: Then historical educology and [sociology of education]<sub>2</sub> or the educology of society are related in that the first is a kind of knowledge about education and the second is a subfund of knowledge about education. You could conceivably produce historical educology of society.

S: I think that I'm beginning to see. What did you say were some other examples of analytic knowledge about education besides historical educology?

T: At least two others can be distinguished. Analytic philosophical educology (or analytic philosophy of education) and jurisprudential educology (or jurisprudence of education).

S: What makes them analytic knowledge?

T: Both sets of knowledge require the use of the standard of necessity reasoning for verification. Both sets of knowledge imply the evidence of implication of language.

S: Can you give any examples that would clarify that?

T: Yes, of course. Let's take analytic philosophical educology. This relates to questions such as: What is meant by education? What is meant by learning? What is meant by curriculum? These questions are calling for definitions, and to answer them adequately requires the use of the standards of necessity reasoning. Verification of answers to these questions would require the supporting evidence of implications of language. Verified answers to these questions would become part of the fund of knowledge that is analytic philosophical educology. Analytic philosophical educology is like historical educology with respect to: (1) the standard of verification that is implied; (2) the kind of evidence that is required; (3) the kind of knowledge that is implied. But they differ with respect to the object of knowledge.

S: How do they differ?

T: With respect to their object of knowledge. Historical educology is knowledge about past events, practices, policies, and ideas in the educational process. Past educational events, etc., are the object of knowledge. Analytic philosophical educology is knowledge about the implications of concepts and propositions in the language of education. Educational language is the object of knowledge for analytic philosophical educology.

## EDUCOLOGY AND SOME RELATED CONCEPTS

- S: And what about jurisprudence of education? What is it and what makes it analytic knowledge?
- T: Jurisprudential educology is knowledge about the implications of legal language which guides and regulates the educational process. A question, for example, which relates to jurisprudence of education is: Do universities have the legal right to dismiss students on the grounds of misconduct without consultation with the student? To verify answers to such questions requires the use of the standard of necessity reasoning. The supporting evidence in the verification process is that of the implication of legal language. A verified answer to such a question would be an addition to the fund of knowledge which constitutes jurisprudential educology. Jurisprudence of education is like analytic philosophy of education and history of education with respect to: (1) the standard of verification that is implied; (2) the kind of evidence that is required; (3) the kind of knowledge that is implied. It differs from them with respect to the object of knowledge. That is to say that jurisprudential educology is knowledge about the implications of legal language which guides and regulates the educational process. That language is its object of knowledge.

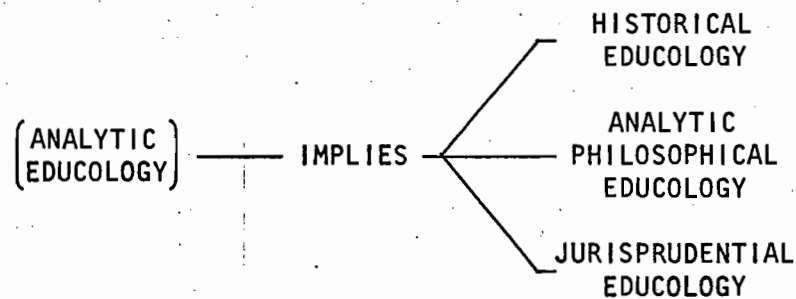


FIGURE 6.11

Three Subfunds of Analytic Educology

- S: Are there any other analytic subfunds of knowledge about education?
- T: There may be other subfunds of knowledge that are about education and that are verifiable by the principle of necessity reasoning. That is why I have said that analytic knowledge about education includes *at least* these three. They are, thus far, the ones which can be justified on the basis of the criteria that I have outlined for you. Others may be developed as the fund of knowledge about education is extended.
- S: You said earlier that analytic knowledge about education includes philosophy of education and normative knowledge also includes philosophy. Does this mean that an analytic subfund of educology can have more than one standard of verification?

## EDUCOLOGY AND SOME RELATED CONCEPTS

T: The fund of knowledge that is educology does have more than one principle of verification, and subfunds of knowledge about education can have more than one standard of verification, and by implication, then, more than one discipline. But in the case of philosophy, I have been careful to use two terms. One was 'analytic philosophy of education', and this term means the same as 'analytic philosophical educology'. The other term was 'normative philosophy of education', and this means the same as 'normative philosophical educology'. The term 'philosophy of education' has often been used in discourse about education without distinguishing between analytic and normative philosophical knowledge. This usage confounds two different kinds of knowledge that should be distinguished. Analytic philosophy of education, or analytic philosophical educology, requires the use of the standard of necessity reasoning for verification of descriptions and explanations of the implications of words and sentences in the language of education. Normative philosophy of education, or normative philosophical educology, requires the use of the standard of evaluative reasoning to make and justify value judgements about the worth of aims, practices, policies, and the like in the educational process.

S: What is an example of a normative philosophical problem?

T: Take the example that I gave you a few moments ago about the jurisprudence question. Change it from whether it is legal to whether it is good that a student be dismissed from a university on the grounds of misconduct without consultation with the student. Whenever you ask whether something in education is good, you are posing a problem that relates to normative philosophical educology, or normative philosophy of education.

S: I think that I have the idea. Is this a normative philosophical question: Is inquiry method a better teaching strategy than lecture?

T: That is an ambiguous example. There are at least two possible meanings for that question. One is the question of whether inquiry method is intrinsically better than lecture. The other is whether inquiry method is extrinsically better, that is, whether inquiry method is more effective in getting what we want, presumably, in causing the learning that we want, than other practices. If your question is about intrinsic goodness, then it is normative philosophical. If it is about extrinsic goodness, then it is praxiological.

S: You have lost me there. I don't see the difference between asking whether inquiry as a teaching method is good and whether it is effective. Isn't being effective the same as being good? How can those two questions be different?

T: The difference hinges on the distinction between extrinsic and intrinsic goodness. The ordinary fellow loves money because it is a way of getting things that he wants. Money is a means to an end.

## EDUCOLOGY AND SOME RELATED CONCEPTS

It has extrinsic worth. The miser, on the other hand, loves money for itself. Money is an end. It has intrinsic worth. Questions about effectiveness are asking about how to get something done. They are questions about extrinsic worth. Questions about intrinsic worth are asking about whether something is worthwhile achieving in the first place. In the educational process, for example, the question of whether reading comprehension can be increased by use of tachistoscopes is a praxiological one. It is inquiring about effective means to an end. Whether increased reading comprehension is a worthwhile state of affairs to achieve is a normative philosophical question. It is asking about a worthwhile goal, in contrast to a means of achieving a goal.

S: I think that I understand. Normative philosophy of education is knowledge about things that are inherently good in education, and praxiology is knowledge about things that are effective. But this gets us back to my original question.

T: Which one is that?

S: Isn't everything that is effective good?

T: No. For example, the administration of electrical shocks might test out to be effective in reducing the number of mistakes that students make as they develop their typing skills, but there are serious objections to the use of electrical shocks in the teaching of typing on the grounds of cruelty. It is effective, but not good.

S: Oh! I see! You are talking about moral goodness.

T: That's right. Moral goodness and ethical goodness relate to intrinsic goodness. Normative philosophical educology is knowledge about intrinsically good states of affairs in education. Effectiveness relates to instrumental goodness, or means relative to ends. Praxiological education is knowledge about what works to get you what you want in education. You need praxiological educology to know how to get what you want. You need normative philosophical educology to know whether what you want is good and whether the way that you have chosen to get it is moral.

S: I see. You said that normative philosophical educology implies the standard of evaluative reasoning. What does that mean?

T: The standard of evaluative reasoning relates to the kind of evidence that is required in the verification of normative philosophical knowledge. Basically, this kind of knowledge is supported with the evidence of reasons.

S: Is that all? I don't understand.

T: Reasons are expressed in the form of language, and so the evidence for normative philosophical knowledge is, quite literally, language



## EDUCOLOGY AND SOME RELATED CONCEPTS

-- words and sentences. This language functions essentially in two ways: It describes a set of standards to which you would find it commendable for people to commit themselves. And it demonstrates through necessary implication that a particular normative knowledge claim is or is not coherent with the established set of commendable standards. Whenever you offer good reasons as supporting evidence for a claim that something is moral, ethical, or intrinsically good you are making use of the standard of evaluative reasoning.

S: How does the standard of evaluative reasoning differ from necessary reasoning?

T: Some examples would possibly help you develop an appreciation of the distinction. In William Frankena's *Three Historical Philosophies of Education*,<sup>4</sup> an explication is given of how three persons (Aristotle, Immanuel Kant, and John Dewey) answer the question of what are worthwhile aims for education. The claims that these three make are examples of normative knowledge claims, and the reasons that they give in support of their claims are examples of evaluative language as evidence for normative knowledge claims. Something else that might help you in achieving a clearer understanding of what constitutes normative philosophical knowledge and evidence for that knowledge is Paul Taylor's *Normative Discourse*.<sup>5</sup> The point of any normative philosophical inquiry is to justify value judgements. Taylor explains how value justification relates to the processes of value verification, value validation, value vindication, and value choice by rational means. These four processes constitute the major techniques of gathering up supporting evidence for a normative philosophical knowledge claim. To use these techniques is to do normative philosophy. The product of using these techniques successfully in inquiry about education is normative philosophical educology. That is, the product is true statements, or knowledge, about intrinsically good states of affairs in education.

S: You have used the term 'praxiology' several times. I have never heard that word before.

T: Yes, it is not a commonly used term, but it is legitimate enough. It derives from the term 'praxis', meaning effective practice, or skill, and the suffix '-logy', meaning knowledge of, or knowledge about. Putting the two together, you get praxiology. I use the term because it forms an important conceptual link between science, technology, and normative philosophy of education.<sup>6</sup>

S: I know that you have talked about it in relation to normative philosophy of education, or normative philosophical educology, but how is praxiology connected with science and technology?

T: Praxiology, science, and technology are empirical funds of knowledge. This means that all three require the use of the same discipline, i.e., the same standard of verification. All three require the standard of observation for verification. So that is the connection. All

## EDUCOLOGY AND SOME RELATED CONCEPTS

three funds are empirical.

S: Are you saying that they are the same? That there is no difference among them?

T: No, not at all. They do differ. They can be distinguished with respect to their object of knowledge. Science of education, or scientific educology, is knowledge about extant states of affairs in the educational process. Praxiology of education, or praxiological educology is knowledge about effective practices in the educational process. Examples include knowledge about making films for effective educational use, using discovery-learning teaching methods effectively, delivering lectures in such a manner that they cause intended learning, arranging games for someone to play in such a way that by playing the game intended learning is achieved. If we pay attention to the derivation of the term 'technology', we see that it relates to *techne*, or technique, which means effective practices or performances. But common usage has fuzzed the meaning of 'technology' so that a lot of people mean hardware when they say technology, and they mean physical things like televisions sets or tape recorders or film projectors when they say 'educational technology' or 'technology of education'. To get away from the concept of physical things and to place the focus clearly on true statements (-logy) about effective action (*praxis*), I use the terms 'praxiology' and 'praxiological educology': *knowledge about effective practice and knowledge about effective practices in the educational process*.

S: So technology of education and praxiology of education mean the same thing?

T: In one sense of technology of education, they mean the same. In another sense, their meanings are quite different. In that other sense, the term 'technology of education' is used to name the physical objects that are used to assist in teaching and studying. A better term for naming these objects is the term 'educational aids': e.g., the films, books, charts, equipment. Thus, the term 'educational technology' functions ambiguously. This is why the term 'praxiological educology' is the preferable one. It dissolves the conflation of physical objects with effective practices.

S: Could you give an example that might illustrate the differences between praxiological educology and scientific educology?

T: Surely. An example of scientific educology is knowledge about forms of learning that occur in the educational process. An example of praxiological educology is knowledge about how to suit instruction to the different forms of learning so that the instruction could effectively cause the learning of some intended skill, principle, or concept. The question of what factors affect the process whereby young children learn to read implies the knowledge of science of education, or scientific educology. In contrast, the question of what

## EDUCOLOGY AND SOME RELATED CONCEPTS

ought teachers say and do in order to get young children to develop their reading abilities implies the knowledge of praxiology of education, or praxiological educology.

S: Your examples sound very much like questions from an educational psychology course that I'm taking.

T: Yes, they do sound that way. When you read a textbook in educational psychology, it usually treats questions of what occurs in education and also questions of what should be done in order to make something happen in education. This second kind of question is often called 'applied problems of educational psychology'. The literature which is currently named 'psychology of education' in fact contains scientific, praxiological, and even normative philosophical knowledge claims. This literature goes far beyond the bounds of what is implied by the term 'psychology of education' in either of its two senses: the effects of education upon mental processes or the effects of mental processes upon education. The literature is simply misnamed. Much of what is named 'educational psychology' is educology. It is normative and analytic and empirical (including scientific and praxiological) knowledge about education.

S: Are you saying, then, that educational psychology is educology?

T: No, not at all. I'm asserting that the term 'educational psychology' has been misused as a name for educology. This is a mistaken use because the concept of educational psychology implies two senses. One sense means knowledge about the effects of education upon mental processes, and thus it is a subfund of psychology. A second sense means knowledge about the effects of mental processes upon education, and thus it is a subfund of educology. It is the educology of mental processes. But people have not thought carefully enough about their use of the term 'educational psychology', and their careless use makes it malfunction in language. It conflates different meanings. It is used to name that which it should not, and it is not used to name that which it should.

S: So, much of the literature that is published under the name of educational psychology is educology, and the literature is misnamed?

T: That's right.

S: And the difference between scientific educology and praxiological educology is the difference between (1) describing what happens in education and (2) acting effectively to cause someone to learn something?

T: No. That's not the difference, but what you say is related to the difference.

S: Then I don't get it. What is the difference?

## EDUCOLOGY AND SOME RELATED CONCEPTS

T: Look at it this way. Is there a difference between a declarative sentence and the set of phenomena to which the sentence refers?

S: Of course. One is a set of symbols, and the other is actual existence.

T: And declarative sentences form statements which, in principle, we can judge true or false. Is this not so?

S: Yes, that's true, but where is this taking us?

T: We're working on the difference between science and praxiology. Both are knowledge, and knowledge is true statements. But true statements about something are not the exact same thing as the something. A true statement about students is not the same thing as the students, for example. Do you agree?

S: Yes, I see that.

T: Scientific educology is true statements about actual events as they happen in the process of education. The true statements accurately describe the events, but the statements are not the same as the events. The statements are only symbols. Does this make sense to you?

S: Yes, I think so.

T: Praxiological educology is true statements about effective practices, that is, practices which make things happen the way that persons in the educational process want them to happen. The true statements are not the same thing as the praxis, but they accurately describe the praxis. For example, the statement,

'Having students practice their spelling words by having them write the words several times is effective in getting them to spell the words correctly',

is only a set of symbols in a declarative sentence. The statement is not the actual behavior of someone. Does that make sense?

S: Yes, it does.

T: Then, what is wrong with saying that scientific educology is describing and praxiological educology is acting effectively so that someone learns something?

S: Well, I'm not sure. Describing is an activity. So is acting effectively. Science and praxiology are true statements . . . Oh! I get it! It's a category mistake! Activities are not statements! Is that it?

T: Exactly. Scientific educology is true statements about what people

## EDUCOLOGY AND SOME RELATED CONCEPTS

do in education. Praxiological educology is true statements about what procedures are effective in achieving intended outcomes in education. But statements are not doings. Statements are sets of words. They appear, for example, in books and articles. These statements can be about activity, but they are not the activity itself. This is what is wrong in saying that scientific educology is describing. Describing is an activity. Scientific educology is statements. And clearly statements are not activity.

S: So neither science nor praxiology is an activity?

T: That's right. They are sets of true statements, and nothing more, nor less, than that.

S: And they differ only with respect to the set of objects to which they refer? Scientific educology is descriptions of the educational process, and praxiological educology is descriptions of effective procedures in the educational process.

T: That's it, if you mean by 'descriptions', true statements'. Does that make sense?

S: It seems to, but I feel uneasy about restricting the term 'knowledge' to mean only 'true statements'. Does this mean that there is no knowledge in photographs or diagrams, for example?

T: It is important to be careful with your language so that it doesn't fool you. Many people are careless with their language, and they don't distinguish between knowledge and knowing. I make a careful distinction in my language between 'knowledge' and 'knowing' because I find that it separates ideas that need separation. I reserve the term 'knowledge' to name true statements, and I use the term 'know' to name an inner condition of a person. This usage makes it possible to locate knowledge in language and knowing in people. Being strict in my use of terms, I would not name photographs and diagrams 'knowledge'. There could be knowledge, that is, true statements about them, but they in and of themselves are not knowledge because they are not true statements. I came to this usage because I found that the only thing that I consistently called true was statements. I could make judgements about the truth value of statements, whereas I could not make them about physical things. Since knowledge is something that is true, and statements are the only things that can be judged true, this places knowledge in the logical category of statements.

S: Would you explain more about what you mean by saying that knowledge is in language and knowing is in people?

T: Let me give you some examples in relation to educology. Educology is true statements about the educational process. Those true statements are located in systems of language about education -- in books, articles, research reports, and the like. But educology is not the

## EDUCOLOGY AND SOME RELATED CONCEPTS

the same as knowing about education. A book does not know. Knowing about education implies the ability to do something adequately in relation to education. This doing can take many shapes, for example, accurately describing education, or, effectively engaging as an expert practitioner (teacher, counselor, student) in education. Knowing is located in persons -- it is the realization of their ability to perform something adequately and intelligently.

S: Then knowing about education is the same as performing in relation to education?

T: We have to be careful here, if we are to be accurate in our characterization of knowing. I said that knowing is the realization of an ability. I have an ability to speak Russian, although I have not developed that ability -- I have not made it real. The potential remains, but because I have not realized the potential, I can not speak Russian as yet. Likewise, I can hide my knowing. I can have realized the ability to solve calculus problems, but not ever give visible evidence of that realized ability. I said earlier that knowing about education is the realized ability to perform adequately and intelligently in relation to education. In this context, the term 'perform' names a wide range of doings -- doings with language, as in speaking or thinking; doings with emotion as in feeling sad or happy in association with sets of circumstances; doings with body, as in running or swimming. As long as you and I agree to use 'perform' to name this wide range of doings, then it is accurate to characterize knowing as the realized ability to perform something adequately and intelligently. But it is inaccurate and too simple to say that knowing is the same thing as performing.

S: I think that I see the distinction. Educology is true statements about education, but it is not knowing about education. But a person could increase his knowing about education through study of educology, couldn't he?

T: Yes, of course.

S: And, if successful, would the study result in increased praxiological knowing, for example?

T: No. It might increase his realized ability to perform adequately and intelligently as a student, for example, but this performance is not properly named 'praxiological'. 'Praxiological' names true statements, not performances.

S: What would you name a person's increase in his ability to perform adequately as a student, if not 'praxiological knowing'?

T: 'Educational praxis' is an adequate and accurate name. A person who develops the effectiveness of his performance as a student into an even more effective performance is increasing his educational praxis. Study of praxiological educology, if successful and appropriate, could

## EDUCOLOGY AND SOME RELATED CONCEPTS

result in improved educational praxis

- S: What about the person who can adequately describe what a teacher, for example, should do to get students to understand something, but can never perform effectively as a teacher themselves?
- T: Their knowing is incomplete. That's all. Describing adequately a state of affairs is one sort of knowing, or realized ability to perform. Acting effectively so that others come to understand what you intend them to understand is another sort of knowing, another realized ability to perform.

EDUCATIONAL KNOWLEDGE (EDUCOLOGY)	EDUCATIONAL KNOWING
≡	≡
KNOWLEDGE ABOUT EDUCATION	KNOWING ABOUT EDUCATION
≡	≡
TRUE STATEMENTS ABOUT EDUCATION	REALIZED ABILITY TO PERFORM ADEQUATELY AND INTELLIGENTLY IN RELATION TO EDUCATION
≡	≡
e.g., BOOKS, ARTICLES, RESEARCH REPORTS	e.g., DESCRIBING, PREDICTING, JUSTIFYING, INTERVENING

FIGURE 6.12

*Knowledge* about Education vs. *Knowing* about Education

- S: It seems that we are getting pretty far afield from our original discussion of the distinction between education and educology.
- T: Not really. Once the distinction is made between (i) education as a process and (ii) knowledge about that process, then the questions of what is knowledge, what is knowing, and what is education all become important ones to investigate.
- S: That reminds me. When we were talking about the educology of secondary education, and the educology of primary education, and other term substitutions, you never did answer my questions about the foundations of education and comparative education. Can the terms

## EDUCOLOGY AND SOME RELATED CONCEPTS

'foundations of educology' and 'comparative educology' be substituted for them?

T: A successful substitution is one in which one term means the same as another term. In the case of the term 'foundations of education', the substitution can not be made. In the case of the term 'comparative education', the term 'comparative educology' can be substituted, but it is a redundancy.

S: Why is that so?

T: The term 'foundations of education' has conventionally been used to mean 'history, philosophy, and sociology of education and comparative education'.<sup>7</sup> Sometimes the term has been intended to include psychology of education as well, and in recent years, the anthropology of education. The expression denotes an historical assortment of subfunds of educology, in one sense, and in a second sense, the term 'foundations of education' does not name knowledge about education, but rather, funds of knowledge about the effects of education upon other sets of phenomena. Remember the two senses of the terms 'sociology of education', 'psychology of education', 'anthropology of education'? Those double meanings make the term 'foundations of education' malfunction. In one sense, [foundations of education]<sub>1</sub>, it means subfunds of funds of knowledge that are not about education. In a second sense, [foundations of education]<sub>2</sub>, it means subfunds of educology.

[FOUNDATIONS OF EDUCATION] <sub>1</sub>	[FOUNDATIONS OF EDUCATION] <sub>2</sub>
≡	≡
KNOWLEDGE ABOUT THE EFFECTS OF EDUCATION UPON, e.g., SOCIETY, MENTAL PROCESSES, CULTURE	KNOWLEDGE ABOUT THE EFFECTS OF, e.g., SOCIETY, MENTAL PROCESSES, CULTURE, UPON EDUCATION
≡	≡
KNOWLEDGE THAT TREATS EDUCATION AS AN INDEPENDENT VARIABLE	KNOWLEDGE THAT TREATS EDUCATION AS A DEPENDENT VARIABLE
≡	≡
SUBFUNDS OF KNOWLEDGE THAT ARE OTHER THAN EDUCOLOGY, e.g., SUBFUNDS OF SOCIOLOGY, PSYCHOLOGY, ANTHROPOLOGY	SUBFUND OF EDUCOLOGY

FIGURE 6.13

Two Senses of the Term, 'Foundations of Education'



## EDUCOLOGY AND SOME RELATED CONCEPTS

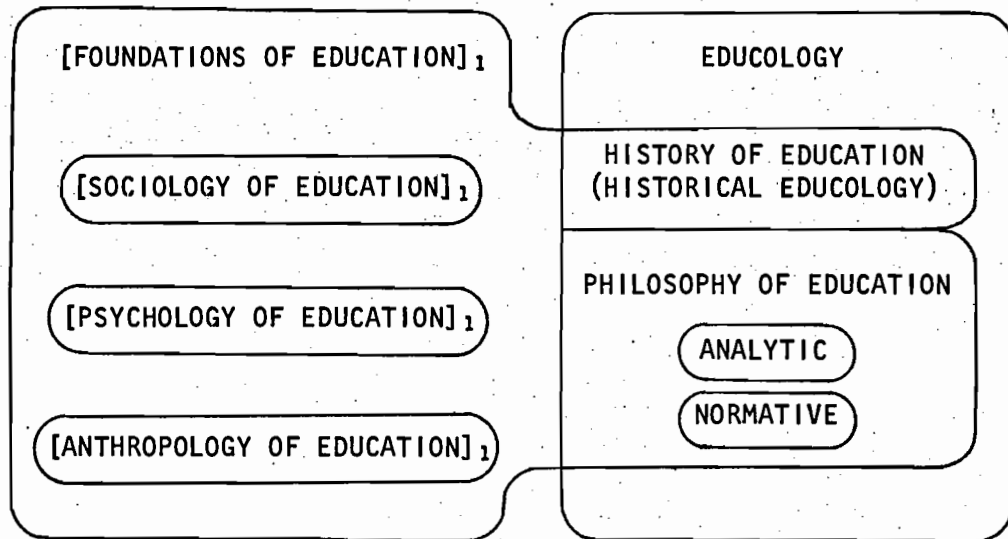


FIGURE 6.14

The Relationship of Educology and [Foundations of Education]<sub>1</sub>

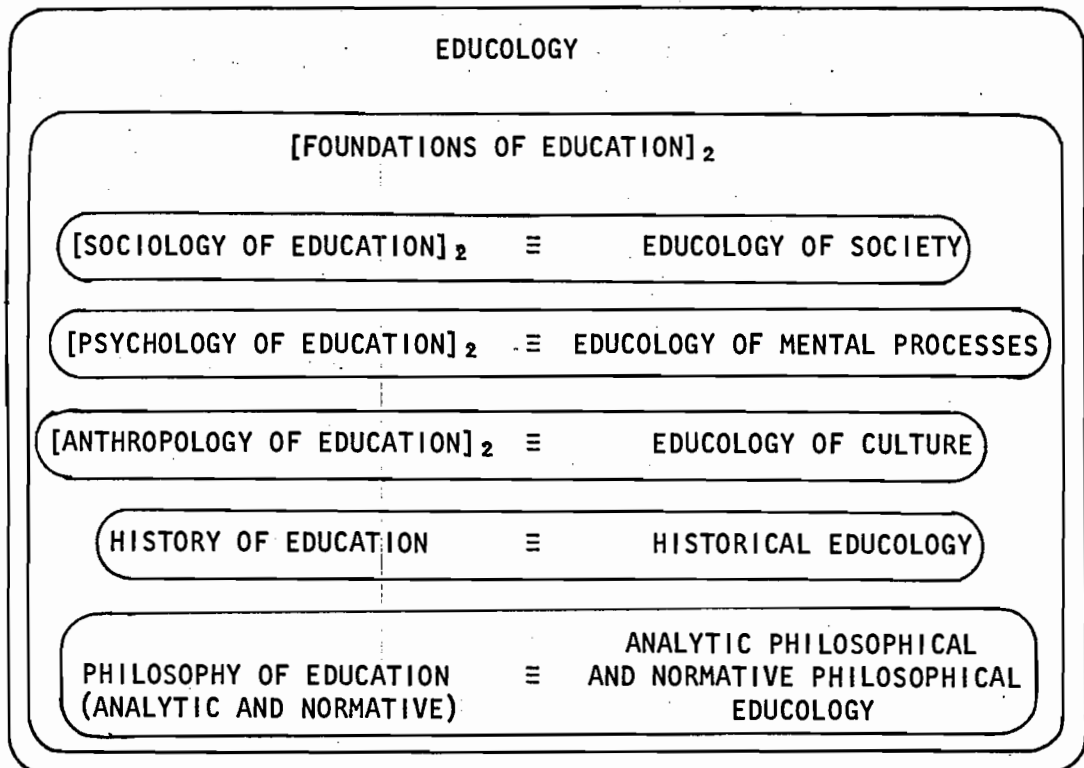


FIGURE 6.15

The Relationship of Educology and [Foundations of Education]<sub>2</sub>

## EDUCOLOGY AND SOME RELATED CONCEPTS

- S: Why isn't history of education and philosophy of education counted as subfunds of history and philosophy? You have said nothing about history of education having two senses.
- T: History names a kind of knowledge rather than a fund of knowledge. So does analytic philosophy and normative philosophy. You see, there can be historical sociology, and this would be the history of society. There can be analytic philosophical sociology, or the analytic philosophy of society, and likewise, normative philosophical sociology, which is the same as the normative philosophy of society.
- S: Then, are they subfunds of knowledge about society, that is, are they subfunds of sociology?
- T: No, it is better to think of them as kinds of knowledge about society, rather than subfunds of knowledge about society.
- S: I don't understand.
- T: Remember that we have distinguished kinds of knowledge with respect to standards of verification. And we distinguished three kinds -- analytic, empirical, and normative. Well, it is possible to distinguish analytic, empirical, and normative sociology, just as it is possible to distinguish analytic, empirical, and normative educology.

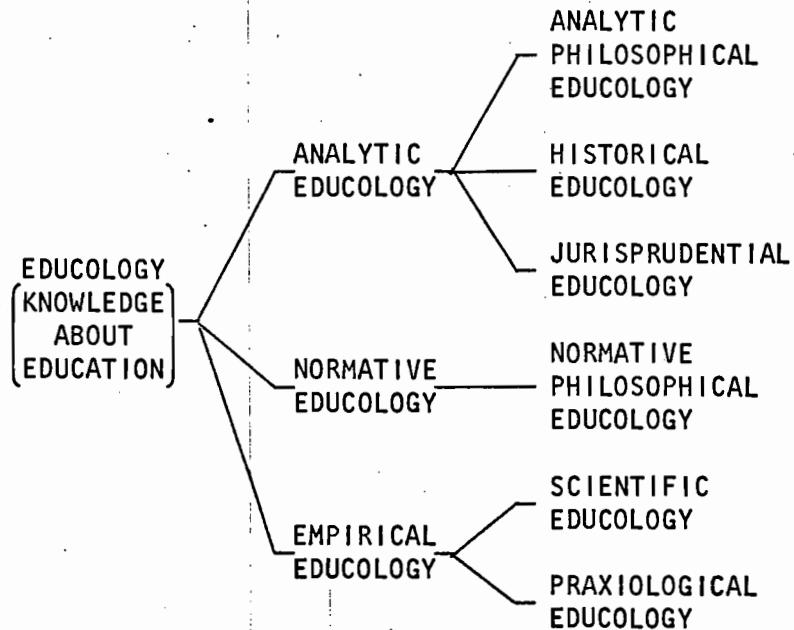


FIGURE 6.16  
Kinds of Knowledge Implied by Educology

## EDUCOLOGY AND SOME RELATED CONCEPTS

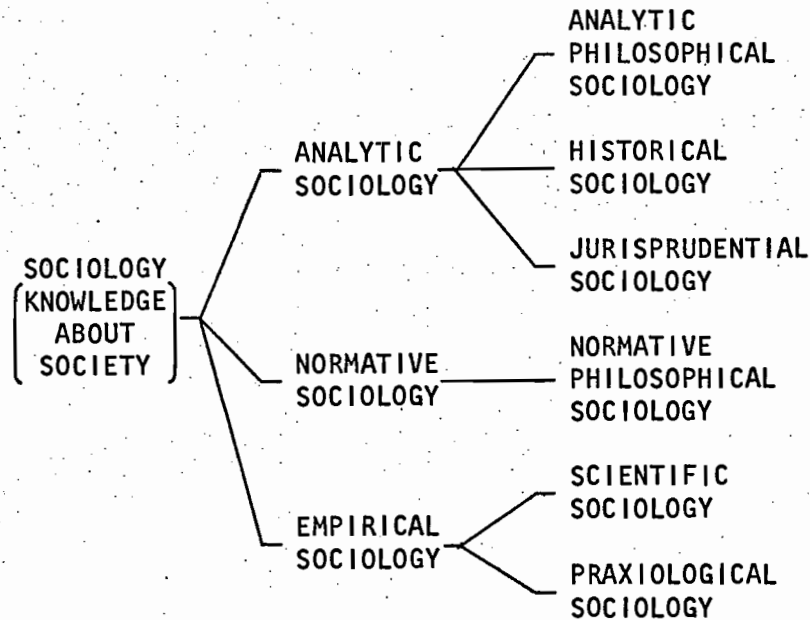


FIGURE 6.17

Kinds of Knowledge Implied by Sociology

- S: How do these three kinds of knowledge relate to something like the psychology of education or the anthropology of education?
- T: Let's take the case of psychology of education. First, in what sense do you mean psychology of education -- [psychology of education]<sub>1</sub> or [psychology of education]<sub>2</sub>?
- S: In its second sense.
- T: In its second sense, it means the same as the educology of mental processes, and the three kinds of knowledge can be distinguished. That is, there can be analytic, normative, and empirical educology of mental processes. [See Figure 6.18.]
- S: And this is true of history of education, also? It implies three kinds of knowledge?
- T: No, history of education, or historical educology, is only analytic. It implies only the use of the standard of necessity reasoning for verification of its knowledge claims. Sociology of education in the sense of [sociology of education]<sub>2</sub>, or the educology of society, implies one subfund of knowledge about education, and three kinds of knowledge about education. History of education, or historical educology, is only a kind of knowledge, rather than a subfund of knowledge, about education. Historical educology, as a fund of knowledge, is implied by analytic educology. [See Figure 6.19.]

## EDUCOLOGY AND SOME RELATED CONCEPTS

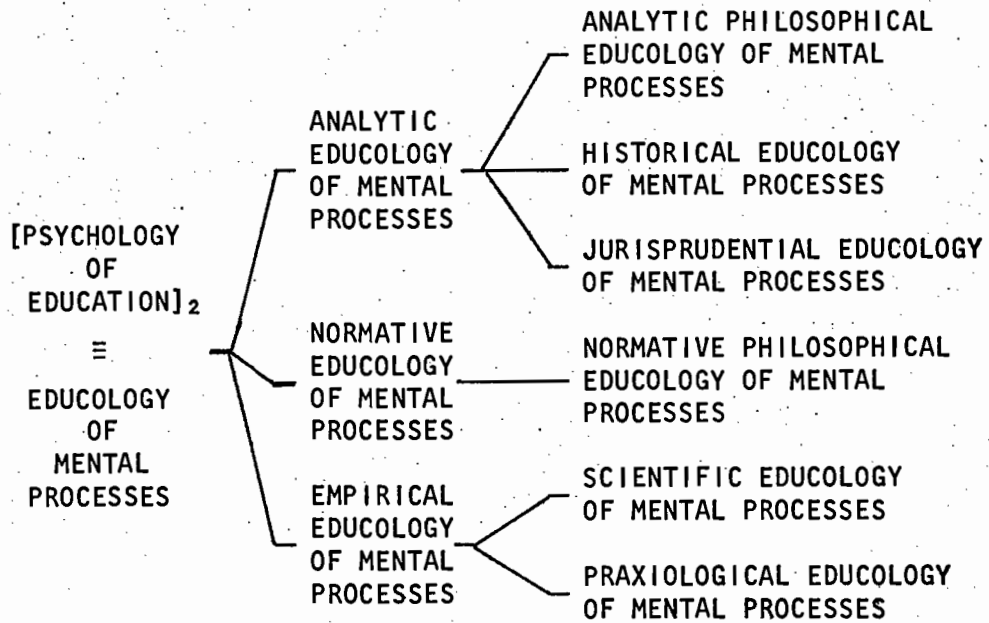


FIGURE 6.18

Kinds of Knowledge Implied by [Psychology of Education]<sub>2</sub>, i.e., by Educology of Mental Processes

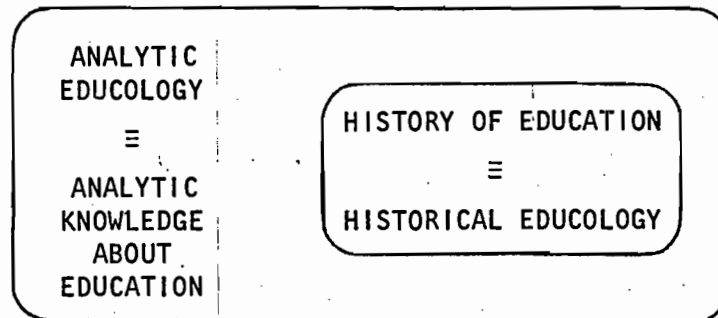


FIGURE 6.19

The Relationship of Historical Educology and Analytic Educology

- S: Oh, I get it. And this argument relates to analytic philosophical educology and normative philosophical educology as well?
- T: That's right. Analytic philosophical educology and historical educology are kinds of knowledge about education that are implied by analytic educology. Normative philosophical educology is a kind of knowledge about education that is implied by normative educology.
- S: So one concept of 'foundations of education' implies kinds of know-

## EDUCOLOGY AND SOME RELATED CONCEPTS

ledge about education and subfunds of knowledge about things other than education. And a second concept of the same term implies kinds of knowledge about education and subfunds of knowledge about education.

T: Yes, and you can understand that the two conceptions of the term 'foundations of education' can cause a tremendous amount of confusion because they conflate subfunds of educology with subfunds of knowledge that are other than educology, e.g., sociology and psychology.

S: The two concepts also conflate subfunds of educology with kinds of educology.

T: That, too.

S: But what of comparative education? You haven't said much about that. How does it fit in with subfunds and kinds of educology?

T: If you read the literature named 'comparative education', you will find basically two conceptions of the term. In one sense, [comparative education]<sub>1</sub>, it is used to mean knowledge about education in different societies and cultures. In a second sense, [comparative education]<sub>2</sub>, it is used to mean knowledge that makes a comparison of two or more entities in the educational process. In its first sense, it is close in meaning to the educology of societies or the educology of cultures. As such, the concept implies a subfund of educology. In its second sense, it is close in meaning to educology.

S: Do you mean that [comparative education]<sub>2</sub> is the same as educology?

T: Look at it this way. Comparison implies examination of two or more entities for the purpose of establishing similarities and differences among those entities. Generalization about a class of objects requires comparison of members of that class. Knowledge about entities in the educational process is true statements about those entities. Where the knowledge is about a class of entities, that knowledge is a generalization. A primary function of inquiry about the educational process is the formation of true generalizations about the process. True generalizations about education are educology, and such generalizations imply comparison. The term 'comparative educology' in the sense of 'true generalizations about two or more entities in the educational process' is a redundant term. Educology means no less than true generalizations about education, so the short answer to your question is, "Yes." [Comparative education]<sub>2</sub> does mean the same as educology.

S: Well, this is a further conflation that is inherent in the two concepts of 'foundations of education'.

T: True, it is. And this gives you some indication of the power of

## EDUCOLOGY AND SOME RELATED CONCEPTS

the term 'educology' for sorting out the confluences in discourse about education. Unfortunately, there are a lot of terms which malfunction just as badly as 'foundations of education'.

S: What are some examples?

T: In the statement, 'Mr. Ross is an educator', the term 'educator' malfunctions. It implies at least four concepts simultaneously.

S: You mean that it's a kind of pun?

T: Exactly, except in this case, it is unintentional, so instead of causing laughter, it causes confusion, even though no one may feel confused.

S: So what can be done about it?

T: One move is to identify the several meanings. 'Educator' in the context of the statement about Mr. Ross means

1. a teacher of any sort of knowledge,
2. a teacher of educology,
3. a researcher who produces educology (an educologist),
4. a school administrator.

A second move that is possible is to mark the different meanings in some way. One technique that could be used is to assign numerical subscripts so that

- 'educator<sub>1</sub>' only meant a teacher of any knowledge,
- 'educator<sub>2</sub>' only meant a teacher of educology,
- 'educator<sub>3</sub>' only meant an educologist,
- 'educator<sub>4</sub>' only meant a school administrator.

S: That's rather awkward. Couldn't you use the term 'educology' to resolve the ambiguity?

T: Yes, that might be simpler. Use

- 'educator' to mean 'educator<sub>1</sub>',
- 'teacher of educology' to mean 'educator<sub>2</sub>',
- 'educologist' for 'educator<sub>3</sub>', and
- 'school administrator' for 'educator<sub>4</sub>'.

S: What is another example of malfunction in language about education?

T: The term 'teacher education'; it has at least three concepts:

1. the process of teaching and studying any sort of knowledge to qualify as a professional teacher;
2. the process of teaching and studying educology;
3. knowledge about education, i.e., educology.

## EDUCOLOGY AND SOME RELATED CONCEPTS

S: Where did you get these three concepts?

T: They arise from the way that people commonly use the term 'teacher education' in talking and writing about education. For example, in the statement,

[Teacher education] is one common function of universities, the first sense of 'teacher education' is implied. In the following statement,

It's in [teacher education] that student teachers are expected to develop their skills in different teaching methods, the second sense of 'teacher education' is implied. And in this next statement,

Student teachers should take fewer [teacher education] courses and more courses in history, art, music, natural science, mathematics, and social science,

the third sense of 'teacher education' is implied.

S: So how can you sort out this conflation?

T: You have to pay attention to your use of language and make some judicious term substitutions. The first statement is all right as it stands. The second can be clarified by making this substitution:

It's in [the guided study of educology] that student teachers are intended to develop their skills in different teaching methods.

And the third can be clarified by this substitution:

Student teachers should take fewer [educology] courses and more courses in history, art, music, natural science, mathematics, and social science.

S: I've noticed that you have been using 'teaching and studying' to mean 'education'. Why haven't you said 'teaching and learning' instead? That is more common.

T: That's an important question. I'm reserving the term 'education' for this conception: 'the process of intentionally guiding and intentionally undertaking to be guided in the learning of something in some setting'. An existing expression that comes close to this conception is 'teaching and studying'.

S: Is 'teaching and learning' any different in meaning?

T: Yes, it is. First, learning implies an achievement. Second, learn-

## EDUCOLOGY AND SOME RELATED CONCEPTS

ing can take place intentionally, but without guidance. And third, it can occur unintentionally and without guidance. I want to be able to distinguish between effective and ineffective education, and I also want to reserve the name 'education' for intentional activity.

S: Then how does the use of 'teaching and studying' help you make those distinctions better than the term 'teaching and learning'?

T: To use the expression 'teaching and learning' in place of the term 'education' implies that any process which qualifies for the name 'education' must have learning taking place in it. I want to give credit for the trying to learn -- the unsuccessful as well as the successful attempts. 'Teaching and learning' doesn't allow me to do this, but 'teaching and studying' does. Actually, 'teaching and studenting' is a better expression because 'studying' functions ambiguously. It can mean the sort of study that a student does under the guidance of, for example, a professor of geology. 'Study' can also mean the sort of study that the professor of geology does without the guidance of anyone. So, there is study<sub>1</sub> (trying to learn under guidance) and study<sub>2</sub> (research without guidance).<sup>8</sup>

S: And which sense of study relates to education?

T: Study<sub>1</sub>, and a better name for this concept is 'studenting': undertaking to intentionally learn something under guidance.<sup>9</sup>

S: Why do you insist that education implies teaching and studying, or teaching and studenting? Isn't simply learning something education?

T: If we choose to be careless and loose with our use of terms, then 'education' might be used in that sense. But there are unfortunate consequences in this careless usage. Learning becomes conflated with education. Education becomes conflated with socialization, enculturation, indoctrination, and conditioning. And from this conflation, confusion abounds.

S: Well, suppose that I accept your invitation to use 'education' in the sense of 'teaching and studenting'. What would be some of the consequences?

T: Imagine a father and son camped near a trout stream, and the father is showing the son how to cast a line. Further imagine that a hiker passes by, unbeknown to the father and son, and he stops to watch them. The father and son are engaged in education as long as both have intentionality -- that is, as long as the father intentionally guides his son in developing the skill of flycasting and as long as the son intentionally seeks guidance. If the son tires of the activity and no longer tries to learn, even though the father persists in instruction, then the state of affairs fails to qualify for the name 'education'. Teaching continues, but studenting stops. Education is the combination of teaching and studenting. If the passerby -- the hiker -- learns something about flycasting from his observa-



## EDUCOLOGY AND SOME RELATED CONCEPTS

tions of the father and son, his learning does not count as education, because any process that qualifies for the name of 'education' must have both a student -- someone intentionally trying to learn -- and a teacher -- someone intentionally trying to help someone to learn. Even if the son does not realize the ability to flycast adequately, his interaction with his father still merits the name of 'education' because there are attempts being made to guide and to be guided in learning. Attempting and not succeeding count as ineffective education, while successful attempts at teaching and studenting count as effective education. If this process takes place within institutions such as schools, academies, institutes, or universities, it is formal education. If it occurs over the dinner table, at a party, in a casual conversation, it is informal education. If what is being taught and being undertaken to learn is worthwhile, it is good education. If the curriculum is worthless, unethical, or immoral, then it is bad education. Education can thus be effective and bad. The paradigm case is from Charles Dickens' novel, *Oliver Twist*, in which the character, Fagin, most effectively taught and his street-urchin students successfully studented the curriculum of thievery and deception.

S: And is this the conception of 'education' that you intended in relation to educology?

T: How do you mean?

S: When you said that educology is knowledge about education, did you mean that it is knowledge about the process of teaching and studenting?

T: Yes, exactly.

S: And this conception of education permits distinctions to be made between socialization and enculturation and education, you said?

T: Yes, it does. You see, if you choose to use the term 'education' in this way, then regardless of whether the state of affairs that you are naming 'education' is formal or informal, effective or ineffective, good or bad, it has a characteristic structure. That is, education has a characteristic structure. There is someone who intentionally plays the role of student. This person could be anyone: a mother, a bricklayer, a truck driver, a farmer, or a school pupil. There is a second person who intentionally plays the role of teacher. She or he could be, at times, a shop clerk, a policeman, a secretary, a university professor, or a professional school teacher. There is something which is taught and studented. It could be how to tie shoelaces, how to lay and finish concrete, the contributing causes of the Bolshevik Revolution of 1918, or the ethics of playing duplicate bridge. There is a location or place. At times, it could be a classroom, a street corner, a taxi, an office, a factory, or a dining room. And there is always a setting. That

## EDUCOLOGY AND SOME RELATED CONCEPTS

is, education always occurs in relation to a society and the culture of that society. The culture includes the institutions, politics, economics, religion, customs, beliefs, attitudes, and mores of the society. Possible categories of settings for education that can be distinguished include administrative settings, cultural settings, economic settings, political settings, religious settings, institutional settings, and legal settings. The concept of setting for education implies the consistent and persistent standards of conduct and belief that any distinguishable group of people, or society, manifest. Education functions in relation to these standards. For example, a legal setting is the system of legal language (laws, rules, regulations, court decisions) which guides, regulates, and sanctions a society's speech, behavior, and belief. This legal setting affects the educational process. Education always has some kind of setting in relation to which it functions.

S: So, teacher, student, curriculum, location, setting -- these are basic components of the process which we are naming 'education'?

T: Yes, and when these components are functioning in characteristic ways, education is taking place. It is this characteristic functioning that makes it possible to distinguish education from other processes such as learning, enculturation, and socialization.

S: Would you explain more about that? I have great difficulty in separating learning from education, for example, or socialization from learning. They seem the same to me.

T: Education is of course related to teaching, learning, enculturation, and socialization, and yet it is different from them. Teaching is acting deliberately in ways that are intended to bring about learning in someone. Thus, teaching is part of education. Without teaching, education is not possible, but there can be teaching and no education. Teaching is a necessary condition for education, but not a sufficient condition. Learning is coming to know something, and coming to know something is realizing the ability to perform something adequately. Learning can be intentional and unintentional. It can be guided and unguided, as well. Guided intentional learning is what occurs in effective education. The intentional attempt to learn under guidance is what occurs in education. Should the attempt fail, the process is still properly named 'education', albeit ineffective education. Thus, there are at least three categories of learning which occur outside of the process of education. Unguided unintentional learning arises from accidents and general experience. Intentional unguided learning arises, for example, from trial and error, or systematic inquiry, or haphazard guessing. Unintentional guided learning is what occurs from operant and classical conditioning.

S: I see that the distinction between education and learning is possible, but it would take a lot of discipline on my part to stop using 'education' in place of 'learning'. And what about socialization and

## EDUCOLOGY AND SOME RELATED CONCEPTS

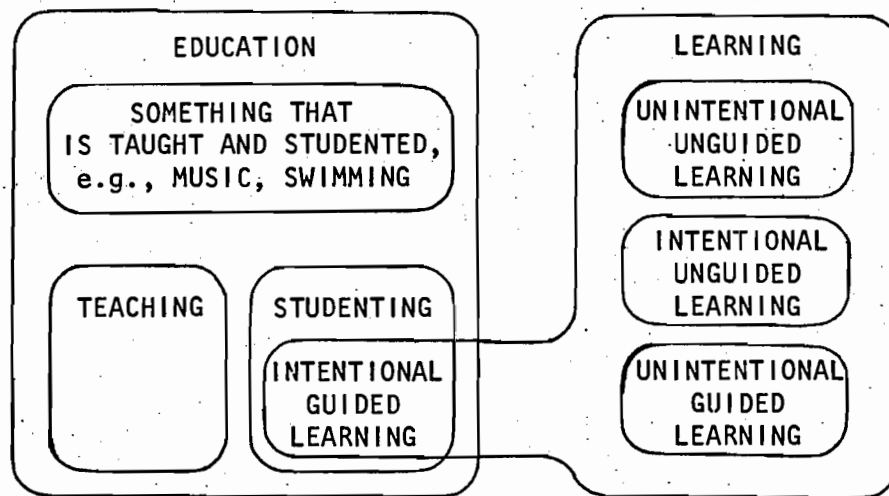


FIGURE 6.20

The Relationships of Education, Teaching, Studenting, and Learning

and enculturation?

T: One way to conceive of 'socialization' is to think of it in the sense of 'the process of coming to arrange oneself into groups in relation to a society'. And 'enculturation' can be conceived to mean the same as 'the process of coming to adhere to the standards of conduct or mores or beliefs that are pragmatically implied by the behavior and language of a society'. Both of the processes include intentionality and unintentionality, so in this respect, they differ from education. Education implies only intentional activity. This conception of socialization relates most closely to arranging. And this conception of enculturation relates most closely to adhering to custom. Education relates most closely to intentionally coming to know something under guidance. A person can perhaps arrange himself more effectively if he knows how, and he may be able to adhere more consistently to custom if he knows the standards of conduct. But knowing social arrangements and customary behavior and beliefs is not identical with arranging and conforming. Thus, if we conceive 'socialization', 'enculturation', and 'education' in these ways, then the processes that we name with these terms are different.

SOCIALIZATION ≡ THE PROCESS OF ARRANGING ONESELF IN RELATION TO GROUPS

ENCULTURATION ≡ THE PROCESS OF CONFORMING TO CUSTOM

EDUCATION ≡ THE PROCESS OF INTENTIONALLY COMING TO KNOW SOMETHING UNDER GUIDANCE

S: What you have said here gives me a lot to think about, but there is

## EDUCOLOGY AND SOME RELATED CONCEPTS

something that I have been worried about from the beginning of our conversation.

T: What is that?

S: With all of those "-ologies" and made-up words like "studenting" it looks to me like you have invented a lot of new words for a field that is already overburdened with technical terms and jargon. Aren't you afraid that additional terms will only confuse us more?

T: Of course we should all be cautious about creating new terms without reason or necessity. But you have already seen how the term 'educology' can be used to dispel confusion by removing the ambiguity that arises from the use of terms such as 'education', 'teacher education', and 'educator'. The concept of educology has considerable power in relating different kinds of knowledge about education and in relating concepts such as 'foundations of education' and 'comparative education' to those of 'curriculum studies', 'secondary education', and 'history of education'. It is the power of the concept of 'educology' to dissolve ambiguity and to classify knowledge about the teaching and studenting process that justifies its use. Where old terms fail us, either because they do not name new concepts which we need, or because they conflate different concepts which require distinction, then it is time to seek new terms that will assist in our communication and discourse. In careful, disciplined discourse about education, we have an urgent need to dispel the conflation and confusion that have traditionally characterized discussions about education.

## EDUCOLOGY AND SOME RELATED CONCEPTS

### FOOTNOTES

1. The term 'educology' was first coined by Lowry W. Harding in *Anthology in Educology*, Dubuque, Iowa: Wm. C. Brown, Co., 1951. The conception of educology that is followed in this chapter is that of Elizabeth Steiner who coined the term 'educology' independently of Harding in 1964 at the annual meeting of the Philosophy of Education Society (U.S.A.). She originally used the term 'educatology', but changed it to 'educology'.
2. In 1974, Dr. James E. Fisher and I presented a paper to the annual meeting of the American Educational Studies Association in which we argued that a more adequate name for a College of Education was 'College of Educology'. The title of the paper was "The Logical Structure of Educational Studies (Educology) as an Organization for Curriculum and Administration in Colleges of Education."
3. In 1975, Dr. James E. Fisher organized a symposium at the annual meeting of the American Educational Studies Association which treated the question of whether the A.E.S.A. should change its name to the American Educology Association. The remarks that I made at the symposium in the paper, "A Conversation about Education and Comparative Education as Educology," laid the conceptual basis for this chapter.
4. William F. Frankena, *Three Historical Philosophies of Education: Aristotle, Kant, Dewey*, Glenview, Illinois: Scott, Foresman and Company, 1965.
5. Paul W. Taylor, *Normative Discourse*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961.
6. The term 'praxiology' appeared in dictionaries as early as 1934 (e.g., the Meriam-Webster *New International Dictionary*, 2nd edition, 1934). Spellings differ with dictionaries. The two variants are 'praxeology' and 'praxiology'. The classic work on praxiology was written by the Polish scholar, Tadeusz Kotarbinski. His book of 1955, *Traktat o dobrej robocie*, was translated into English by Olgierd Wojtasiewicz and published by Pergamon Press in 1965: *Praxiology: An Introduction to the Sciences of Efficient Action*. Elizabeth Steiner extended the concept of praxiology and related it to education, and she coined the term 'praxiology of education'. See, for example, Elizabeth Steiner [Maccia], "The Non-Identity of Philosophy and Theory of Education," in *Readings in Philosophy of Education*, 2nd edition, John Martin Rich, Editor, Belmont, California: Wadsworth Publishing Co., 1972, pp. 360-371.
7. Cf. the A.E.S.A. Task Force on Academic Standards, "Standards for Academics and Professional Instruction in Foundations of Education, Educational Studies and Educational Policy Studies," *Educational Studies (A Journal in the Foundations of Education)*, Vol. 8, No. 4 (1978), pp. 329-342.

## EDUCOLOGY AND SOME RELATED CONCEPTS

8. An interesting and clear explication of the distinction between these two senses of study was made by Jerome A. Popp in a paper presented to the annual meeting of the American Educational Studies Association in 1975: "Considerations for Naming a Professional Association." Professor Popp at that time held an appointment in the College of Education at Southern Illinois University, Edwardsville.
9. I first used the term 'studenting' in one of my classes in late 1977. In 1978, I found that Elizabeth Steiner was also using the term, and that she was using it for the same reason as I: to distinguish playing the role of student from the process of learning and also to dissolve the ambiguity implied by the term 'study'.