

PRACTICAL REASONING AND TEACHER EDUCATION

by

CAROLINE MARY LA BAR

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Department of Curriculum & Instruction

The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

Date April 1985

Abstract

In this thesis it is argued that the constituents of practical reasoning are necessary for good teaching; as such, the study of practical reasoning would be a valuable addition to teacher education programs.

Practical reasoning is basically reasoning about what should be done. In Chapter II a conception of practical reasoning developed by Jerrold Coombs is outlined. This conception, which includes a variety of abilities, dispositions and sensitivities, as well as knowledge about a number of concepts and distinctions, is used throughout chapters III and IV to illustrate its value in typical teaching activities.

These typical teaching activities are divided into two categories, using a distinction conceived by Thomas Green. Green has described teaching as a "practical activity" which consists of perhaps hundreds of single different activities. He divides these activities into three categories: 1) logical acts (for example, explaining, concluding, inferring, giving reasons); 2) strategic acts (motivating, planning, evaluating, disciplining); and 3) institutional acts (taking attendance, keeping reports, consulting parents). Institutional acts, he says, are not necessary to the activity of teaching. However, both logical and strategic acts are "...indispensable to the conduct of

teaching wherever and whenever it is found (Green, 1975, p. 5). Furthermore, he argues that "Teaching can be improved by improving either kind of activity, but it cannot be excellent without attention to both (ibid., p. 8)."

In Chapter III, I have illustrated how practical reasoning would improve the logical acts of teaching and in Chapter IV I have argued that practical reasoning would improve the strategic acts.

Chapter V includes a summary of the major argument and concludes with some suggestions about how to develop teachers practical reasoning abilities and dispositions.

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CHAPTER I

As a society, we place a very high value on education. Indeed, it seems that we demand increasingly more from our educational institutions. Despite periodic attacks on all levels of our educational system, one of which is currently underway, it seems that almost no one seriously suggests that education is superfluous or unworthy of attention. Instead, most of the criticism takes the form of recommendations for a variety of 'reforms.' Our commitment to education and the institutions which advance it remains intact.

While the popular perception appears to equate schooling with education, the distinction must not be blurred by those who are concerned with furthering education. The 'reforms' in schooling suggested by the layperson may well be antithetical to genuinely educational aims. Proposals that schools should place more emphasis on giving students job skills training, for example, may, if implemented, seriously truncate the educational process. The time allocated to job skills training is likely to be time taken from study of those subjects meant to increase knowledge, understanding and appreciation of significant institutions, ideas, principles, and cultural achievements. Though the aims of education are not the subject of this paper, it is at least reasonable to assume that there is relatively widespread consensus that education should

prepare students to participate in the democratic society in which we live. Such appreciation includes, I assume, the above knowledge, understanding and appreciation. I further assume, then, that there is general agreement among professional educators, and at least some laypersons, that our society is committed both to education and to a democratic form of government.

Given this commitment, it would be difficult to deny the importance of teachers to the educational enterprise. Also, because society demands a great deal from schools and, thus, of course, from teachers, it seems obvious that the education of teachers is of utmost concern to all reflective citizens. Recommendations to 'reform' education are likely to be largely ineffective without addressing the issue of teacher education. This paper is an attempt to examine some fundamental aspects of teaching which are presently inadequately dealt with, if at all, in teacher education programs, with the aim of suggesting some changes in those programs.

The changes to existing teacher education programs which will be recommended in chapter five are grounded in a conception of practical reasoning developed by Jerrold Coombs. Practical reasoning, as he uses the term, is reasoning about what to do. Coombs acknowledges that there are philosophical disputes about the precise nature of practical reasoning but argues that the issue ". . . should

be decided by determining which conception of practical reasoning is most fruitful in understanding and improving practical reasoning, given what we know about how people actually do reason about what to do (1982, p. 117)." His conception, which is elaborated in some detail in chapter two, includes a number of attainments - abilities, sensitivities, dispositions and knowledge - which he believes are essential for rational practical judgment.

In chapters three and four, a number of these attainments will be discussed in relation to some characteristic teaching activities. These chapters basically comprise an examination of the fruitfulness of Coombs' conception of practical reasoning with respect to practical classroom concerns.

I use Thomas Green's analysis of the concept of teaching from his book, The Activities of Teaching, as a way to structure the discussion. Green describes teaching as a practical activity which consists of perhaps hundreds of instances of different types of activities. He divides these into three categories. The first category, the logical acts, includes those relating primarily to the element of reasoning or thinking in teaching. Examples of such acts include explaining, concluding, giving reasons, amassing evidence, and defining. The second category, the strategic acts, is concerned with the teacher's plan or strategy in teaching, the way material is organized and students are

directed. These activities include motivating, evaluating, encouraging, disciplining, and questioning. The third category, the institutional acts, consists of those aspects of the teacher's work which arise primarily because the school is an institution. In this category fall such activities as taking attendance, attending meetings, keeping reports, and so on. Green rightly points out that the categories, although not very precisely defined, are nonetheless useful in getting clearer about the activity of teaching.

The institutional acts, logically speaking, are unnecessary to the activity of teaching. Teaching can be carried out in other than institutional settings. The logical and strategic acts, on the other hand, are indispensable for any action or activity to count as teaching. While the logical and strategic acts differ from each other in important respects, both are crucial to teaching and, in fact, usually take place simultaneously. It is important to maintain the distinction between the two, however, for the purpose of advancing discussion on improving pedagogical practice. In Green's words, "Teaching can be improved by improving either kind of activity, but it cannot be excellent without attention to both (1971, p. 8)."

How then are the logical and strategic acts to be distinguished? The answer, according to Green, is primarily by the way the two are evaluated. The logical acts are

appraised on purely logical grounds.

. . . whether an explanation is good or adequate can be decided without considering whether anyone learns from it. In other words, it can be assessed independently of its consequences for learning. An explanation will be a good one if it accounts for what is to be explained. If it is well constructed and without logical fault, then it is a good explanation even when it is not understood by anyone except its author... (ibid., p. 7).

While the logical acts of teaching can be well done even if no one learns, this is not the case with respect to the strategic acts. The strategic acts are evaluated chiefly by their consequences for learning. As teaching typically is concerned with getting someone to learn something, it cannot be ranked highly unless learning occurs. Whereas the logical acts require a knowledge of the "laws of thought" the strategic acts require a knowledge of "the laws of learning and human growth." There are some situations which require a greater emphasis on logic than strategy, while there are others which require the reverse.

The distinction between the logical and strategic acts is summarized, then, by how they are evaluated - the strategic acts by their consequences for learning, the logical acts independently of their consequences. In practice, of course, both kinds of acts occur together.

Green states

This important difference between the logic of teaching and the strategy of teaching is usually obscured because, in practice, the logical acts of teaching never occur, or at least they seldom occur, except in the context of some teaching

strategy. Consequently, we almost never evaluate these different kinds of acts independently of one another (ibid., p. 7).

With respect to the discussion which follows in chapters three and four of this paper, the point about obscuration of the distinction is of note. While chapter three addresses the logical acts, it is not possible to completely avoid reference to the strategic acts. Similarly, while chapter four is concerned with the strategic acts, occasional reference to the logical acts is required.

The argument for the value of practical reasoning in improving pedagogical practice is repeated in summary form in chapter five. Following this summary, an attempt is made to set out some suggestions for including in teacher education programs studies which will develop persons' practical reasoning.

CHAPTER II

The account of practical reasoning employed in this paper was conceived by Jerrold Coombs.¹ Comprehensive and coherent educational programs to teach anything must be based on a sound conception of what is to be taught and defensible reasons for teaching it. Coombs' account provides both of the above. This work is elaborated in sufficient detail to make clear the constituent abilities, dispositions and knowledge required for rational practical reasoning as well as the interrelationships between the constituents. As such, it provides a foundation for developing materials and strategies for teaching purposes.

Practical reasoning is concerned with making decisions about what to do. Such reasoning occurs both at the individual level, in which one makes a judgment about what one personally should do, and at the social level, in which one makes a judgment about what one's society or social groups should do. At both levels, however, the reasoning follows the same basic form - the judgment or conclusion

¹ This work is part of a report submitted by J. Coombs, C. La Bar and I. Wright to the Correctional Service of Canada. The conception of practical reasoning was, however, developed solely by Coombs and will be cited as Coombs (1982) throughout this thesis. This chapter is based entirely on the conception included in the report.

about what should be done is reached using two distinct types of reasons: 1) motivating reasons, which take the form of value standards which the reasoner accepts, and 2) beliefs about what actions will fulfill the value standards.

Consider the following simple example. John, a mathematics teacher, must decide whether to spend his Tuesday evenings taking a French cooking course, something he has long wished to do, or taking a computer course, something which he believes would help him meet his obligation to help under-achieving students in problem solving. John believes that he will enjoy the cooking course immensely. He also believes that he will be better prepared to help his students if he takes the computer course. Accepting the value standard that teachers are obligated to facilitate individual student learning when possible, even at the expense of denying himself something long wished for, John decides that he should enrol in the computer course. His beliefs about the consequences of acting on each of the alternatives, combined with the value standard he accepts, provide the two kinds of reasons from which his judgment or conclusion can be deductively inferred. Written formally, John's argument reads:

Major premise: (Value standard)	I ought to do that which will help my students learn rather than that which will contribute to my personal enjoyment.
Minor premise: (Belief)	Taking a computer course will help my students learn.

Conclusion: (Practical judgment)	I ought to take a computer course rather than contribute to my personal enjoyment.
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Both premises, the value standard which he accepts, and his belief about the consequences of the proposed course of action must be defended if his judgment is to be sound. In addition, of course, the argument must be deductively valid, that is, the premises must logically lead to the conclusion.

John's dilemma is rather less complicated than many cases requiring practical reasoning. Often more than two alternatives present themselves, much more information relevant to describing and evaluating the consequences of alternative courses of action is required, and a number of value standards are involved and may conflict. Nonetheless, the basic form of the reasoning remains the same. The judgment about what ought to be done is based on a value standard accepted by the reasoner and beliefs about what actions will fulfill the value standard.

Criteria for Assessing the Minor Premise

If practical judgments are to be considered rational, certain criteria must be satisfied; specifically, assuming that the deduction is valid, both premises must be defensible. Coombs has identified three criteria by which to assess the minor premise, which is always an empirical or definitional claim. The first criterion of rationality he terms "factual accuracy"; clearly, reasoning based on false

empirical claims cannot be sound. In the example cited earlier, John's judgment that he ought to take the computer course would not be considered sound if it was found that his taking the course would not help his students learn. The second criterion is "evidential comprehensiveness" which requires the reasoner to take into account all the information relevant to assessing the desirability of the alternatives. Using John's case again, if he did not ascertain whether the computer course used hardware available at his school, his reasoning would not be sound. The third criterion is termed "reasonable alternative inclusiveness"; it charges the reasoner with considering all the alternative courses of action which might reasonably be taken in a particular circumstance. Once more, John might be chided for not considering, perhaps, a third alternative, one that might be even more helpful for his students - offering special tutorials on Tuesday evenings, for instance.

Criteria for Assessing the Major Premise

The criteria for assessing the major premise, a value standard or principle, are, in Coombs' words, "more complex and more controversial." In general, two standards are used to carry out such assessments; both must be used together for an assessment to be rationally defensible. The two, the standard of greatest benefit and the standard of morality,

operate somewhat differently in individual judgments than they do in social judgments. In the former, the standard of greatest benefit is satisfied if the reasoner concludes that the course of action chosen is the alternative that would contribute most to the realization of the whole complex of values which characterize his rationally preferred way of life. The rationally preferred way of life is an ideal, "never fully attainable." Although different persons have different conceptions of the good life, there are certain basic values which are necessary to anyone's conception because they are inherently desirable. According to Coombs

. . . the sorts of things generally taken to be basic goods include survival, security, health, pleasure and just treatment (Green, 1978). Rawls (1971) would add to this list rights, liberty, opportunities, power, wealth and a sense of one's own worth. These he regards as primary goods because they increase the likelihood of success in carrying out one's intentions and advancing one's ends whatever these ends might be (ibid., p. 8).

The standard of greatest benefit, then, is made concrete by these basic goods. Different persons' conceptions of the good life vary because they weigh the importance of these goods differently. In making an individual practical judgment, the reasoner must determine which alternative course of action realizes the greatest amount of basic goods, according to her conception of the good life.

As sketched above, the standard of greatest benefit is self-referring, whereas the standard of morality is other-referring, setting limits on the way one can treat other

persons. Basically it requires the reasoner to treat persons according to rules which she would be willing to have anyone adopt as a guide to the treatment of others. Two principles make up this standard:

- 1) It cannot be right for me to take a given action unless it is right for any person in the same sort of circumstances to perform that action;
- 2) If the consequences of everyone's doing action x in a given circumstance would be unacceptable, then it is not right for anyone to do x in that circumstance.

The standard of morality is made concrete by basic moral rules such as don't kill, don't cause pain, don't disable, don't deprive of pleasure, don't deprive of freedom, don't break promises, don't cheat, don't deceive, don't break the law. All rational persons, whatever their preferred way of life, will want to avoid, other things being equal, being killed, disabled or cheated by the actions of others.

Reasoners should use the basic moral rules, not as absolute guides to action, but as indicators to signify that proposed actions require assessment from the moral point of view. Circumstances may demand that one break a moral rule in order to avoid breaking another. Conflict among the basic rules must be resolved by applying the two principles which form the standard of morality.

The standards of greatest benefit and morality are, of

course, applied more interactively in social practical judgments than they are in individual judgments. Because the standard of greatest benefit must be applied to a number of persons, not just an individual, it is more difficult to interpret and apply. Coombs states that

Ideally it would be fulfilled to the highest degree by that program of action which most nearly realizes the rationally chosen way of life of every person in the society. But programs of action which realize basic goods for some may be destructive of basic goods for others because programs of action have differential effects and because the basic goods, while common to all rational people are . . . assigned different orders of importance by different persons. In making a social judgment we must decide whose goods are to be realized to what degree. (ibid., p. 10).

The decision about whose goods are to be realized to what degree is resolved not by applying the standard of greatest benefit, but by appealing to the standard of morality, especially "as it is embodied in the principle of justice or just distribution. This principle states that, other things being equal, benefits must be distributed equally (ibid., p. 10)." Coombs argues that the principle of equality must be given conditional priority over the standard of greatest benefit. This can only be applied by determining who is to benefit, a question to be settled by the standard of morality. The application of the standards of greatest benefit and morality in social judgments, he concludes,

. . . direct us to choose that alternative which realizes the greatest common benefits for persons. An alternative which provides greater total benefits but distributes them unequally may be chosen only if the judger could sincerely advocate

that alternative even if he were in the position of the person least advantaged by its being chosen. When a policy or practice resulting in an unequal distribution of goods is justified, the standard of morality requires that, insofar as possible, each person has an equal opportunity to secure the higher rewards (ibid., p. 12).

Coombs has analyzed the above conception of rational practical reasoning into a comprehensive list of abilities, dispositions and sensitivities persons need to acquire if they are to become proficient at practical reasoning. The following list presents the competencies.

1. Sensitivity to situations in which practical reasoning is required. Basically this is a sensitivity to decisions or actions which are likely to have consequences of such significance for oneself or others as to warrant serious reflection before acting. This sensitivity has two aspects:

- 1.1 Sensitivity to actions or decisions affecting one's long term best interests. This sensitivity is dependent upon several kinds of knowledge or awareness including:

- 1.1.1 Knowledge of what sorts of things are basic values for human beings in general.

- 1.1.2 Knowledge of what sorts of actions are generally considered dangerous, rash or imprudent.

- 1.1.3 Awareness of the nature of one's own long

term interests.

1.2 Sensitivity to morally hazardous actions, that is, actions which require assessment from the moral point of view. This sensitivity alerts persons to (1) actions that may have consequences for others which the actor could not accept if they were to befall him and (2) actions which may have unacceptable consequences were everyone to engage in them. Such sensitivity is composed of a variety of more specific attainments including the following:

1.2.1 Knowledge of basic moral rules such as: Don't kill. Don't deprive of pleasure. Don't cheat. Don't cause pain. Don't deprive of freedom. Don't deceive. Don't disable. Don't break promises.²

1.2.2 Knowledge of what generally harms human beings either physically or emotionally.

1.2.3 Possession of a wide range of moral concepts such as deceiving, demeaning, indoctrinating, belittling, etc.

2. Disposition to undertake practical reasoning when such is required. This disposition requires at least the

² This statement of moral rules is adapted from that found in Bernard Gert, The Moral Rules, (New York: Harper & Row, 1966).

following prerequisite abilities and knowledge:

- 2.1 Ability to delay immediate gratification in favour of securing one's long term interests.
- 2.2 Ability to suspend judgment until reflection has taken place.
- 2.3 Knowledge of the value of engaging in practical reasoning.
3. Ability and disposition to identify or conceive of reasonable alternatives to the proposed course of action. This ability likely depends in part on having:
 - 3.1 Knowledge of various means for realizing certain values.
 - 3.2 Knowledge of the importance of considering reasonable alternatives.
4. Ability and inclination to assemble, insofar as practically possible, all the information relevant to determining the relative worth of each course of action under consideration. Some of the constituents of this attainment include:
 - 4.1 The disposition to determine the consequences of the alternative actions for realizing each of the basic human concerns, i.e., economic, health, safety, recreational, aesthetic, intellectual and moral concerns.
 - 4.2 The ability to find sources of information in libraries, government agencies and the like.
5. Ability to assess the accuracy of the information

concerning the alternative courses of action. Most of the skills associated with critical thinking are constituents of this attainment. These include:

5.1 Ability to clarify the meaning of statements.

5.2 Ability to detect and avoid ambiguity in a line of reasoning.

5.3 Ability to assess the validity of deductive arguments.

5.4 Ability to frame one's findings in language that is clear and precise.

5.5 Ability to assess the reliability of observation statements.

5.6 Ability to judge whether an inductive conclusion is warranted. This includes the ability to detect informal fallacies in the reasoning of others and avoid them in one's own reasoning.

5.7 Ability to detect hidden assumptions underlying an argument.

5.8 Ability to detect and avoid inadequate definitions.

5.9 Ability to assess the acceptability of a statement by an alleged authority.

6. Disposition to determine the accuracy of information about the alternative courses of action. Subcomponents of this disposition include:

6.1 Disposition to exercise the abilities listed in (5) above.

6.2 Disposition to be open-minded and intellectually honest, accepting conclusions based on adequate reasons or evidence and withholding judgment when the evidence is insufficient to warrant the conclusion.

6.3 Disposition to demand as much precision as the subject matter permits.

6.4 Disposition to deal with the parts of a complex situation in an orderly fashion.

7. Ability and disposition to assess the moral acceptability of the alternative courses of action. Constituents of this attainment include:

7.1 Knowing that moral assessment is guided by two principles:

(a) It cannot be right for me to do X unless it is right for any person in the same sort of circumstances to do X.

(b) If the consequences of everyone's doing X in a given circumstance would be unacceptable, then it is not right for anyone to do X in that circumstance.

7.2 Ability and inclination to imagine for each alternative the consequences that would ensue if everyone in your circumstance were to engage in the action, and to reject the action as wrong if the imagined consequences are unacceptable.

7.3 Ability and inclination to put oneself

imaginatively into the circumstances of another person to appreciate the consequences each alternative course of action has for that person, and to reject the action as wrong if the imagined consequences are unacceptable.

7.4 Ability and disposition to consider the views of others concerning the moral acceptability of the alternative courses of action.

7.5 Knowledge of how, if at all, one differs from people in general with respect to the things that he or she regards as harmful.

8. Ability and disposition to organize information concerning the alternative courses of action in such a way as to be able to rank them with regard to the degree to which they realize one's rationally preferred pattern of values.

9. Knowledge of the importance of conducting practical reasoning in accordance with the standards of morality and the standard of greatest benefit. This includes:

9.1 Understanding why a system of public morality is necessary if we are to have the sort of social order in which one can lead a fulfilling life.

9.2 Understanding the desirability of assessing one's action in relation to one's total pattern of values rather than merely in terms of one's immediate or short term desires.

10. Disposition to act on the conclusions reached as the

result of rational practical reasoning rather than on one's immediate desires.

Summary

Jerrold Coombs' conception of practical reasoning, which will be referred to throughout this paper, has been summarized in this chapter. This conception has been explicated in sufficient detail to provide a framework for developing materials and strategies to teach the abilities, dispositions and knowledge requisite for rational practical reasoning. In the following two chapters, I will argue that the constituents of practical reasoning identified by Coombs are required for both logical and strategic teaching acts.

CHAPTER III

The purpose of this chapter is to provide support for the claim that the logical acts of teaching would be improved if teachers were to develop the abilities, dispositions and sensitivities required for rational practical reasoning. To this end, specific examples will be chosen from three British Columbia secondary curriculum guides and examined to show how practical reasoning would facilitate fulfillment of these objectives. The examples used are taken from Social Studies, Consumer Education, and English. Although B.C. curriculum guides have been used, each example has been chosen to reflect fairly general concerns and thus would be likely to be found in curriculum guides used in other Canadian jurisdictions.

Social Studies 11

The example from the Social Studies chosen for discussion here is taken from the draft Social Studies Curriculum (May 20, 1982). As it is anticipated that this curriculum will be implemented in the near future, it seems most sensible to use it rather than the 1968 Guide currently being used by teachers.

Before launching into an examination of a specific example, it is necessary to outline the general organization of the curriculum. There are four overall goals which state

in general terms what students should know and understand on completion of the basic program. These four goals are meant to guide the selection of each grade's goals, which are subdivided into content, understandings, skills and inquiries. It is stated that content, understandings, skills and inquiries are ". . . to be taught as part of a process. Every effort should be made to integrate these factors and not teach them in isolation (Draft S.S. Curriculum, 1982, p. 7)."

There are two significant points, with respect to present purposes, to be made about the introductory general remarks made in the Curriculum Guide. First, each of the four overall goals states that student knowledge and understanding should be developed ". . . through the exercise of critical thinking and problem solving skills." A 'Skills' Appendix at the back of the guide breaks down problem solving into its component parts. Although there is no section titled 'critical thinking,' there are sections on 'decision making' and 'evaluating information.' All three of these sections overlap substantially with the account of practical reasoning presented in Chapter II.

The second notable point to be made is that the expected learning outcomes, in terms of knowledge, understandings and skills, are all meant to be applied to a variety of "significant inquiries." Presumably, then, the inquiries section is seen to be of some importance, a focal

point to which learning is to be directed. The Guide states:

The inquiries section includes sample questions. These questions will require students to apply and extend their knowledge, skills and understandings. The questions range from those which have a solution based on the available evidence to those which are issues. An issue may be defined as a matter of interest about which there is significant disagreement. The disagreement can involve matters of fact, matters of meaning or matters of value (ibid., p. 5).

In addition to the fact that learning content, skills and understandings is to be directed towards investigation of inquiries, the final statement in the above quotation is of some import in this thesis. It is precisely "matters of fact, matters of meaning or matters of value" with which practical reasoning is concerned. The example chosen for examination is taken from the inquiries column of Grade XI.³

The focus of Grade XI Social Studies is entitled

³ The example was chosen arbitrarily. There are many other 'inquiries' which could have been used for discussion, even at the elementary level. The following 'inquiries' would have served equally well.

- Should a community be changed to provide new systems? (Grade II)
- Should good agricultural land be used for purposes other than food production? (Grade III)
- To what extent did native people make wise use of their environment? (Grade IV)
- Should immigrants to Canada be assimilated? (Grade V)
- How should people manage the use of natural resources? (Grade VII)
- Of what value is bilingualism and biculturalism to Canada? (Grade VIII)
- Is all scientific research beneficial? (Grade IX)
- Was the use of force against the Metis in 1885 justified? (Grade X)

"People and World Issues." The Curriculum Guide states that "Students are expected to touch upon significant developments to identify the factors involved and to trace their consequences now and in the future. Critical thinking and problem solving should be given prominence in these activities." The specific inquiry to be discussed is "Can or should governments protect industries and workers affected by technological change?" Content related to this inquiry is "the impact of technological change and the expansion of knowledge on individuals and societies." Related understandings to be fostered are:

Technological change can affect a nation's ability to compete in world markets.

Technological change can make traditional skills and products obsolete with serious consequences for individual workers and industries who fail or are unable to adjust.

Technological change and increased knowledge may markedly influence a nation's physical environment, culture, economy and government.

The concept of the rights and responsibilities of the state and the citizens change over time and with circumstances.

A large number of skills, including problem-solving, decision-making, locating, acquiring and evaluating information are to be developed.

To teach the objectives stated above requires that teachers make decisions with respect to materials and methods. Although these types of decisions fit, strictly

speaking, in Green's category of 'strategic acts'⁴ and thus are not directly relevant to this discussion, it is impossible to talk in any meaningful fashion about teaching without at least brief mention of them.

It is quite conceivable that students could come to know the content and 'understandings' listed above by several means which would not involve any reasoning on their part whatsoever. However, inquiries according to the Curriculum Guide, require that attention be paid to many of the components of Coombs' account of practical reasoning. For example, students could come to realize the impact of technological change on individuals in societies in various ways. Teachers could deliver lectures on the topic, have students copy out notes and memorize the content, have students read various materials or show films. But if students are to engage in an 'inquiry,' none of the above will suffice. In any case, the Curriculum Guide seems to be clear that students are to do more than recall specific facts about a variety of topics.

If teachers are to have students undertake the 'inquiry' chosen for discussion here (and many others in the Guide), then they must realize that decisions about

⁴ Strategic acts of teaching will be discussed in greater depth in Chapter IV.

materials and methods are to be made in the light of that objective. It is logically impossible for students to arrive at an answer to the questions utilizing only a lecture method. Information relevant to the inquiry can be provided by lecture but, because this inquiry is an "issue" - according to the Guide, a matter about which there is "significant disagreement" - students must know how to evaluate the information. Similarly, it is unlikely that students could answer the questions if they have access to only one viewpoint. The nature of the inquiry precludes exclusive use of expository methods of teaching and reliance on a single textbook.

Although somewhat dated by now, the conclusions reached by the National History Project in 1968 are probably still pertinent.

Despite all evidence to the contrary, the great majority of the Canadian studies lessons we observed were trapped within the pages of a single textbook. Seventy-five per cent of the classes in our Survey were struggling with one or other of the two most universally condemned teaching methods. In some cases, the students were "bench-bound listeners," lined up in rows, sitting passively, while a "talking textbook" rhymed off material that they could have read and digested for themselves. More frequently, they were going through the mechanical, question-answer routine based on the discrete, factual recall of a few assigned pages in the textbook. Even if the deficiencies in subject matter were corrected through the development of new programs, very little would be accomplished unless we also overhauled the teaching methods now being used in most of the Canadian studies classrooms (Hodgetts, 1968, p. 116).

The nature of the inquiry type of question, then, suggests that decisions with respect to materials and methods must be congruent with inquiry methods, where this phrase is used to describe at least the following steps: feeling of perplexity, confusion or doubt; intellectualizing the difficulty or perplexity into a problem to be solved; using hypothesis(es) to initiate and guide observation and other operations in collecting facts; stating a reasoned hypothesis; testing the hypothesis⁵ (Dewey, 1933, p. 107). In the same vein, materials must be chosen to reflect a variety of viewpoints on a given issue. The traditional textbook, unfortunately, does not provide the type of information appropriate for discussing issues or undertaking inquiries.

David Pratt (1975) is most instructive in this regard. In an article entitled "The Social Role of School Textbooks in Canada" he argues that the textbook can be a powerful influence in shaping students' attitudes towards social issues. In reviewing several studies of textbooks, he notes that there is

⁵ Dewey's account of reflective thinking has been used here because much of the educational literature on inquiry and problem-solving has used it as a starting point. Although this literature often provides more elaborate accounts, Dewey's includes the major logical components of inquiry.

. . . clear evidence of the tendency of textbooks to ignore important aspects of the history of non-white racial groups as well as their contemporary situation, and to minimize interracial conflict except where the non-white race could be unequivocally cast in the role of aggressor (ibid., p. 105).

With respect to religious issues, a Christian viewpoint is normally adopted; to class, a middle class stereotype is predominant. In general, school textbooks ". . . support a consensus, non-controversial, conventional view of society (ibid., p. 120)." Although there has been some change in recent years in that collections of readings for high school students have appeared, Pratt concludes that

In the long run, these changes may have little effect on students' attitudes, partly because it is easier to change texts and programmes than to change teachers, and partly because students' social beliefs are largely determined in the elementary school, where little change in textbooks and programmes is evident (ibid., p. 122).

If Pratt's and Hodgetts' conclusions are correct, then teachers attempting to develop in students the necessary abilities for undertaking inquiries about significant social issues will need education of a different sort than they are presently receiving.

This brief digression into the strategic acts of teaching must be terminated in order to return to the main topic of this chapter - the logical acts. The question under discussion here is "Can or should governments protect industries and workers affected by technological change?" Teachers, in order to help students answer this question,

must first of all recognize that it consists of two separate questions - 'can governments protect industries and workers' is an empirical question, whereas 'should governments protect industries and workers' is a normative question. The answers to each will require use of different types of justificatory reasons. Let us deal first with the empirical question.

A serious consideration of the question 'can governments protect industries and workers affected by technological change' entails the abilities and dispositions required for critical thinking (attainments 5 and 6 of Coombs' account of practical reasoning). Additionally, number 4.2 - the ability to find sources of information in libraries, government agencies, and the like, is also necessary. It is once the information is found that one must apply critical thinking skills. To illustrate this point, take, for example, attainment 5.1 - the ability to clarify the meaning of statements. It would seem, on the surface, that our question is a relatively straightforward one. However, if one looks at the word 'protect' one sees that it can mean more than one thing. Webster's New Collegiate Dictionary (1975) gives three separate meanings: 1) to cover or shield from injury or destruction; 2) to save from contingent financial loss; and 3) to shield or foster by a protective tariff. Any of these three meanings makes sense in the context of our question. But it is necessary, for

clarity's sake, to specify which meaning is being used. Depending on the time available, one could specify all three, two or just one. The important point is that different reasons will be needed for each interpretation.

In the example here, it is likely that a dictionary will be sufficient to clarify the meaning of the statement. In other situations, though, a more comprehensive analysis of concepts will be needed. Particularly with value-laden terms - such as democracy, communism or freedom, all frequently used in the Social Studies - it is of substantial importance to be clear about meanings. It is of little pedagogical value to hold a discussion on the merits and demerits of communism if it is not entirely clear to all participants what is meant by the term. In addition, being clear about meanings helps avoid the use of some informal fallacies in one's own reasoning and to detect them in the reasoning of others (attainment 5.6).

To further illustrate the importance of critical thinking in answering our question, let us examine one other constituent ability of critical thinking - 5.9, the ability to assess the acceptability of a statement by an alleged authority. Most of the evidence students can collect to support or refute any claim about whether or not governments can protect industries and workers affected by technological change will be from sources such as textbooks, magazines, newspapers, books, government reports, and so on. To

evaluate the information contained within these sources, students must be able to decide to what extent these authoritative sources are reliable. Ennis (1969, p. 393) suggests the following criteria for a reliable authority:

- 1) he has a good reputation
- 2) the statement is in his field
- 3) he was disinterested - that is, he did not knowingly stand to profit by the results of his statements (except that he may have stood to have his reputation affected)
- 4) his reputation could be affected by his statement and he was aware of this fact when he made his statement
- 5) he studied the matter
- 6) he followed the accepted procedures in coming to his conclusion (although there are legitimate exceptions to this requirement)
- 7) he was in full possession of his faculties.

These criteria are meant to be jointly applied in order to assess the reliability of an alleged authority. To compare conflicting authorities necessitates consideration of all the criteria combined with consideration of the specific context under concern. There is not, unfortunately, a simple, mechanical procedure to apply; rather, good judgment must be exercised. Lack of time and expertise requires both teachers and students to rely on authorities for all sorts of information. And to assess this information, it seems apparent that knowledge of the criteria for a reliable authority is essential.

The discussion of two constituents of critical thinking - the ability to clarify the meaning of statements and the ability to assess the acceptability of a statement by an alleged authority - is meant to illustrate the complexity of evaluating information. In examining only these two, however, the intent has not been to convey the impression that these two constituents are the most crucial critical thinking abilities nor that they would suffice in evaluating any communication for accuracy. Just as there are standards for assessing the acceptability of a statement made by an alleged authority, there are also standards by which to assess the other constituents. To judge whether an inductive conclusion is warranted (attainment 5.6) requires knowledge of, in part, the criteria for making acceptable generalizations. To assess the reliability of an observation statement (5.5) requires knowledge of the criteria by which to evaluate the observer, the observation conditions, and the observation statement itself (Norris, 1979). Neither students nor teachers are likely to become aware of these standards unless they are explicitly taught.

The dispositional constituents of practical reasoning will require much more time to develop than the abilities. A teacher may be able to teach students the criteria by which to evaluate statements made by authorities in a single lesson. However, to develop in students the disposition to exercise this ability is a much more complicated task.

Dispositions of the sort outlined by Coombs include certain tendencies, as well as knowledge and abilities.

Gilbert Ryle (1949) describes dispositions as the words commonly used to describe and explain human behaviour. Dispositional concepts include both abilities and inclinations. However, to possess either an ability or an inclination does not imply that we actually either use the ability or act as we are inclined to act. To say of someone that she is a skillful snooker player is to attribute to her the ability to play snooker, but it does not imply that she is now playing snooker. Similarly, to say of someone that she is lazy is to attribute to her the inclination to avoid work, but it does not imply that she is now avoiding work. Thus, Ryle distinguishes between episodic concepts, which refer to things now happening, and dispositional concepts, which point out abilities or inclinations, but which do not refer to particular episodes. Playing snooker and avoiding doing one's work are episodes; being a skillful player or being lazy are dispositions.

To analyze any dispositional concept requires the use of hypothetical statements - statements of the form 'if x, then y.' To say that someone is lazy is to say, roughly, 'if she is presented with the opportunity for effort, then she avoids that effort.' In Ryle's words:

To possess a dispositional property is not to be in a particular state, or to undergo a particular change; it is to be bound or liable to be in a

particular state, or to undergo a particular change, when a particular condition is realized (ibid., 1949, p. 43).

Dispositions, then, are enduring character traits. To develop enduring traits in people we must do much more than present them with information. We face, at the very least, the need to shift the pattern of their habit structures and must, if nothing else, involve them in repeated exercises of the abilities or repeated circumstances in which to substantiate the inclinations we believe they should have.

Some dispositions, such as being a skillful snooker player, are fairly specific. The abilities and tendencies involved in being a snooker player are quite determinate compared to the dispositions in Coombs' account of practical reasoning. Look, for example, at attainment 6.

Disposition to determine the accuracy of information about the alternative courses of action. Subcomponents of this disposition include:

- 6.1 Disposition to exercise the abilities listed in (5) above. (the critical thinking abilities)
- 6.2 Disposition to be open-minded and intellectually honest, accepting conclusions based on adequate reasons or evidence and withholding judgment when the evidence is insufficient to warrant the conclusion.
- 6.3 Disposition to demand as much precision as the subject matter permits.
- 6.4 Disposition to deal with the parts of a complex situation in an orderly fashion.

But subsumed under these dispositions there is probably a variety of other sorts of abilities and knowledge required.

Dispositions such as these are, according to Ryle, not determinate, but "determinable dispositional words" which "signify abilities, tendencies or pronenesses to do, not things of one unique kind, but things of lots of different kinds (ibid., p. 118)."

It would seem that to develop the dispositional attainments of practical reasoning would mean maintaining a classroom atmosphere which was at all times conducive to what Harvey Siegel calls the "critical spirit." Siegel describes the critical spirit as follows:

One who possesses the critical spirit has a certain character as well as critical skills; a character which is inclined to seek reasons; which rejects partiality and arbitrariness; and which is committed to the objective evaluation of relevant evidence. A critical attitude demands not simply an ability to seek reasons, but a commitment to seek reasons; not simply an ability to judge impartially, but a willingness to so judge, even when impartial judgment is not in one's self-interest (Siegel, 1980, pp. 5-6).

There are numerous implications with respect to teaching methodology in a classroom where the "critical spirit" prevails. But it is only by means of a concerted, and probably long-term educational effort can one expect that students will be disposed to exercise critical thinking abilities, to be open-minded and intellectually honest.

The normative question, 'should governments protect industries and workers affected by technological change?', is much more complex than its empirical counterpart. In

addition to the critical thinking abilities, most of the other attainments in Coombs' account of practical reasoning play a part in answering this question. However, to examine each of the ten attainments with respect to our question would require more space than is available here. Instead, this section will deal with a selected sample to illustrate the point.

Consider, for example, attainment 1:

Sensitivity to situations in which practical reasoning is required. Basically this is a sensitivity to decisions or actions which are likely to have consequences of such significance for oneself or others as to warrant serious reflection before acting.

This attainment has two aspects - the self-regarding and the other-regarding. It is the latter which is most relevant here. It reads:

Sensitivity to morally hazardous actions, that is, actions which require assessment from the moral point of view. This sensitivity alerts persons to (1) actions that may have consequences for others which the actor could not accept if they were to befall him and (2) actions which may have unacceptable consequences were everyone to engage in them.

Subsumed under this attainment are:

Knowledge of basic moral rules such as: Don't kill. Don't deprive of pleasure. Don't cheat. Don't cause pain. Don't deprive of freedom. Don't disable. Don't break promises.

Knowledge of what generally harms human beings either physically or emotionally.

The question 'should governments protect industries and workers affected by technological change' is unarguably one that requires practical reasoning. Indeed, it would seem

that it has been posed because, to answer it, one must take into account the consequences that would befall either the general population as taxpayers, if the question is answered affirmatively, or the general population as workers, if the question is answered in the negative. Note that the question would have to be broken down into at least two parts. In many instances, the interests of workers and those of industries will likely be quite different.

Looking at the attainment requiring knowledge of basic moral rules, it is likely that serious reflection on the normative question might involve consideration of several moral rules, specifically, "don't deprive of pleasure," "don't cause pain," and "don't disable." Of these any sane government must be cognizant in making a decision to act, where the decision has potential serious impact on its citizens. Similarly, knowledge of what generally harms human beings either physically or emotionally is of great importance in attempting to answer the question. Protecting workers affected by technological change may involve installation of, for example, safety equipment to prevent physical harm; protecting industries affected by technological change may mean providing outright grants or tax incentives to prevent the emotional (not to mention economic) harm caused by, for instance, being forced to go out of business.

Having touched only the surface of this complex

question, it seems appropriate at this point to mention attainment 2, the disposition to undertake practical reasoning when such is required. Two constituents of this attainment are particularly relevant here: the ability to suspend judgment until reflection has taken place and knowledge of the value of engaging in practical reasoning. If teachers are concerned with developing in students the ability to deal with the complexities inherent in the inquiry questions listed in the Curriculum Guide, they must attempt to help students acquire both of these.

It is clear that the question under discussion involves a large amount of information. It is in this regard that teachers have a wide range of methods available to help students acquire or locate the necessary facts. (Here again, the critical thinking abilities and dispositions mentioned earlier come into play). But our question will not likely have a simple 'yes' or 'no' answer. Much of the information brought to bear on the question will be decisive in formulating a course of action vis a vis governments' part in protecting industries and workers affected by technological change. For example, students may decide that governments should protect industries and workers and from this, an obvious question emerges - how? In answering this question, students will need attainment 3, the ability and disposition to identify or conceive of reasonable alternatives to the proposed course of action. Subcomponents

include: knowledge of various means for realizing certain values; and knowledge of the importance of considering reasonable alternatives. Suppose that students decide that governments should protect, in the sense of 'saving from contingent financial loss,' workers affected by technological change. This judgment is made from the point of view of economic, and probably moral, values. Perhaps other human concerns should also be taken into account (health and safety, for instance). Furthermore, suppose that students suggest that this should be done by governments giving workers some financial compensation when they lose jobs because their skills are obsolete. Upon further investigation (or guidance by teachers), students may discover that this proposed solution is unworkable for any number of reasons. Or they may realize that financial compensation would be best viewed as assistance in retraining workers for other employment.

As was the case in discussion of the empirical question, it is not intended that the above remarks suggest that those attainments particularized are the only ones or the most salient for the purpose of answering the question. Instead, they are meant to exemplify the point that the teaching of certain types of objectives would be improved if teachers were to gain some expertise in practical reasoning.

If students are meant to deal with inquiries such as the one examined here, then they must come to learn certain

things. As it is expected that teachers will help them to learn certain facts, as well as decision making and critical thinking skills, then teachers need to know these facts and skills first. In addition, teachers must know the importance of reasoning in relation to the general goals of education in our society. Without such knowledge, teachers are unlikely to be able to fulfill curricular aims.

Consumer Education 9/10

Consumer Education 9/10 (1982) is a prescribed course for all secondary school students in British Columbia. The Curriculum Guide is organized very differently from the Social Studies Curriculum Guide considered in the previous section. The discussion that follows here will reflect this difference.

The Guide begins with a statement of the 'Philosophy' of Consumer Education:

Consumer education is a life long process, a process which develops the skills of critical observation, intelligent inquiry and effective decision-making so that individuals learn to become informed, competent and engaged members of the community they live in. Such individuals will be able to develop personal goals with a sense of self-direction, adjust to meet changing conditions, and accept responsibility for their actions, their community and its environment.

Consumer education, therefore, offers students a framework for making sound, reasoned decisions and provides them with a rich and full understanding of the world in which they live, study and work. Consumer Education is more than acquiring information; it is also learning to use a problem-

solving process that involves analyzing, synthesizing and evaluating information in order to make sound decisions. As students go through the course content, they should be taught to recognize problems, to solve these problems by stating them clearly and simply, to identify the various issues involved, to gather information related to the problems and to interpret the information with regard to alternatives and solutions (p.7).

The 'Philosophy' of Consumer Education 9/10 has been quoted at length because it appears to reflect general aims very similar to some of those in Coombs' account of practical reasoning. But, if one examines the goals and learning outcomes of the curriculum, it is readily apparent that the emphasis is on gaining knowledge about such things as consumer legislation, personal record keeping, banking, credit, contracts and debt management. Although such information is indispensable in making wise consumer decisions, the emphasis on learning consumer 'facts' is incongruent with the stated philosophy. However important this discrepancy, though, it is not apposite here to discuss it in detail. Rather, the focus will be on another significant problem with Consumer Education 9/10, one that is more relevant to the major argument of this thesis. In some respects, this problem is similar to that posed in the preceding discussion on teaching the B.C. Social Studies curriculum - that is, the curriculum guide requires teachers to teach for a variety of outcomes for which they are provided little direction.

In this case teachers are advised throughout to have

students use a decision-making model which is insufficiently described and only simplistically exemplified. Although it is recognized that one must take into account the capacities of students in curriculum design, and these capacities may differ from one locale to another, this does not appear to be the explanation for the apparent deficiencies of this curriculum. Neither the curriculum guide nor the bulky accompanying resource manual offer more than rudimentary guidance to teachers on how to teach students what is involved in each step of the decision making process. The factors affecting consumer decisions, outlined in schematic form in the guide, are given equally short shrift in the resource materials. The cursory treatment given these important fundamentals seriously weakens the entire fabric of the curriculum.

The decision-making process of Consumer Education 9/10 involves the following steps: identify a reason for a decision; recognize the personal values that may affect a decision; gather information and discover the choices/alternatives; list alternatives; set criteria to evaluate alternatives and the consequences of the alternatives; select one alternative; determine the best procedure to implement the decision; implement the decision; re-evaluate the decision, the procedure and the result (Consumer Education 9/10 Teacher Resource Manual, Vol. 1, 1982, p. 8).

It is significant to note that none of the above steps is described in sufficient detail to enable teachers to help students learn to come to grips with the complexity of making serious decisions. At the level of making decisions about which orange juice to buy (an example from the curriculum), the superficial process may be adequate to make a choice. But, if Consumer Education 9/10 is to help students ". . . become well-informed consumers who can make wise and satisfying decisions about the management of personal and community resources" and come to terms ". . . with larger issues such as economic disparity and environmental protection from a national and global perspective" (ibid., p. 6), then much more is required.

It may be useful at this point to examine one of the steps in the decision-making process in order to illustrate some of the difficulties that might be encountered in using this oversimplified approach. Step five of the decision-making process above states "set criteria to evaluate alternatives and the consequences of the alternatives." In the orange juice example mentioned earlier, this step is probably quite straightforward. Students likely will be able to quickly set forth the criteria by which to compare Brand X with Brand Y, and even Brand Z. As for evaluating the consequences of buying Brand X over Brand Y or Z, it seems reasonable to assume that most students will be able to handle this task with equal proficiency. Other similar

suggested decision-making situations in the curriculum are: "you have just won \$500 in a contest. You must decide what you are going to do with the money" (ibid., p. 21); "Have students use the decision-making process to decide whether to purchase an item with cash or credit which they or their families are considering buying (ibid., p. 97)." The above-mentioned activities are similar to the orange juice example to the extent that they provide students with practice in applying the decision-making process to situations which are relatively free from the complexities inherent in many circumstances where a choice has to be made. These situations differ from the orange juice example only in that they require slightly more reflection and a little more information. The consequences of making a decision to purchase with credit rather than cash, for example, may be more serious than those of purchasing the 'wrong' brand of orange juice. Thus the model appears to suffice for decisions of this magnitude and nature, as long as relevant information is collected and assessed.

But the model is also intended to suffice for decisions of greater magnitude and of a very different nature. Consider, for instance, the following activity in Topic 7: The Price System and Additional External Costs of Products. "Use the decision-making process to solve the problem posed in question 19 on page 34 of the prescribed text (ibid., p. 130)." Question 19 reads: "You are shopping in a local store

with two friends. You see one of them stuff a T-shirt inside his jacket and leave the store. What should you do? Why? (Wood, 1982). Again, as with the example from the Social Studies discussed earlier, it would seem that the question presents us with a paradigm case requiring practical reasoning. But does the curriculum guide or the teacher resource manual or the textbook provide teachers or students with the necessary and appropriate knowledge and abilities to make a rational decision? It would seem not.

First, the question posed for students is clearly a moral one. But what sort of guidance does the curriculum offer to enable teachers to help students learn to deal with such thorny problems as whether loyalty to friends overrides allowing someone to get away with stealing? ⁶ Step five, "set criteria to evaluate alternatives and the consequences of the alternatives" takes on a different complexion in the context of this decision-making situation. How are these criteria to be set by students or how are teachers to help students in setting these criteria?

At this point it is necessary to look back at step two

⁶ Perhaps the fact that the question is included in a section titled "The Price System and Additional External Costs of Products" helps to explain the difficulty; that is, the point of view is economic whereas the question is clearly moral.

of the model. It states that, after identifying a reason for a decision, one must "recognize the personal values that may affect a decision." This step, although trivial in the orange juice situation, is of substantial import in the current example. How, then, does the curriculum deal with the subject of values? The curriculum guide contains no discussion of values; it merely acknowledges, in schematic form, that values and goals are among the personal factors affecting consumer decisions. The Teacher Resource Manual, Volume 1, goes slightly further in that it defines values in a note at the bottom of a student activity page. It says "Your values are beliefs that you think are important to you. Your values will help you determine your goals (ibid., p. 21)." The student textbook, Looking at the Consumer, provides the longest discussion of values. It defines values as "the beliefs and ideas one has (p. 8)." It goes on to state that values are learned by watching and imitating those people with whom one interacts. The author, John Wood, continues:

As you mature, you will compare, judge, select, and reject the values of those with whom you come into contact, and you will begin to form your own values. At every stage you will be trying out what you think is the acceptable value to yourself and society. In time you will find that certain actions are treated as right and desirable by society as a whole. These actions will tend to become the basis of your value system. (1982, p. 9).

Value conflict is viewed as a personal problem which ". . . may be due to a conflict between your family's culture, its

ethnic background, and its position on the economic ladder and what you perceive as a preferred way of living (ibid., p. 9)." Later in the text, the discussion of conflict continues as Wood examines setting goals, which he says "are based on the values you think are important." An inner conflict may develop if "the goals of your peer group . . . conflict with your personal goals." The advice given to those with such a conflict is "You must make your own decisions and live with the consequences (ibid., p. 90)."

Wood's account of values and value conflict in the prescribed text for Consumer Education is so naive as to be virtually useless for helping students make decisions. He apparently is not cognizant of any philosophical or educational literature discussing this complex subject. Yet it is logically impossible to teach decision-making, or to make decisions, without serious attention to values. How are teachers to help students to "compare, judge, select and reject" values without knowledge of what different kinds of values there are or without knowledge of what kinds of standards one might use to reject some and keep others? How are teachers to help students to "set criteria to evaluate alternatives and the consequences of the alternatives" without recourse to some rational examination of values? If teachers and students are not aware that value claims are made from various points of view (prudential, moral, economic, aesthetic, and so on), how are they to know what

kinds of reasons can be employed in justifying them?

Consider, briefly, Paul Taylor's important account of values. He argues that the word 'values' refers to three sorts of things:

The value judgments and prescriptions accepted by the person as being justified (whether or not he has ever in fact tried to justify them); the standards and rules which the person would appeal to if he were asked to justify his value judgments and prescriptions; and all other standards and rules which constitute the value systems the person has adopted, consciously or unconsciously (Taylor, 1969, p. 297).

He continues:

Thus a person's values include all the standards and rules which together make up his way of life. They define his ideals and life goals (to fulfill the standards; to follow the rules). They are the standards and rules according to which he evaluates things and prescribes acts, as well as the standards and rules he tries to live by, whether or not he is aware of them (pp. 297-298).

Taylor classifies values into eight basic points of view, corresponding to the major social institutions and activities; they are basic in the sense that they are present in all civilized cultures to carry on its civilization. They are the moral, the aesthetic, the intellectual, the religious, the economic, the political, the legal, and the point of view of custom or etiquette. To justify a value judgment from any point of view is to offer reasons in support of the judgment; and, of course, the reasons must be good reasons. Taylor distinguishes the two kinds of rules which together comprise the canons of reasoning for the justification of value judgments. He

states,

Rules of relevance provide the criteria by which we determine whether a reason offered by someone is justifying a given value judgement is relevant. Rules of valid inference provide the criteria which determine whether a reason we have already found to be relevant is good (warranted, legitimate, valid, logically sound, intellectually acceptable). (ibid., p. 109)."

To take a certain point of view, then, is to adopt certain canons of reasoning - rules of relevance and rules of valid inference - to justify our value judgments.

It is this sort of understanding about values which students, and thus teachers, need in order to set criteria to evaluate alternatives. If students decided that it is right to say nothing when they see a friend stealing from a store because 'the store owner can probably afford it' they should be made aware that they are offering an economic reason for a moral judgment. Such a reason may be relevant, but it is not the most important feature of the situation. Without some understanding of how one goes about justifying a value judgment, the incoherence of such an argument will probably pass unnoticed.

Wood assumes that a student's value system will come to be based on actions which society treats as "right and desirable." How this comes about is unclear. A further problem with this oversimplified account is that it cannot help teachers or students examine the immoral actions of their own society. Even if an action or policy is treated as right and desirable, can it be shown to be so by any

rational means? Wood's concern with the informational aspects of consumer education has blinded him to the salient role of values in consumer decision-making, leaving the emphasis on consumer facts . His text reflects the same discrepancy between overall philosophy and specific objectives as does the curriculum of Consumer 9/10.

Having strayed from our example at some length, we will return to it to see how Coombs' account of practical reasoning would serve better as a model for teaching decision-making than the rather primitive account advocated by the Curriculum guide, the Teacher Resource Book and the student textbook. As in the previous section on the Social Studies, we will examine only a few of the attainments of practical reasoning in order to illustrate its efficacy.

Consider again the previously cited student question: "You are shopping in a local store with two friends. You see one of them stuff a T-shirt inside his jacket and leave the store. What should you do? Why?" Suppose students have identified the alternative courses of action and are now faced with setting criteria to evaluate them and the consequences of them (step five). Teachers will likely have difficulty here as the prescribed text, the resource book and the Curriculum Guide offer no guidance. Attainment 4 of Coombs' account provides at least the basis for establishing criteria by which to evaluate the consequences of alternatives. It reads:

Ability and inclination to assemble, insofar as practically possible, all the information relevant to determining the relative worth of each course of action under consideration.

This attainment includes:

the disposition to determine the consequences of the alternative actions for realizing each of the basic human concerns, i.e., economic, health, safety, recreational, aesthetic, intellectual and moral concerns.

This attainment supplies both teachers and students with a framework for compiling standards by which to judge what should be done. In the example here there are probably only two basic human concerns, the economic and the moral, which are of relevance and the moral clearly overrides the economic.

Attainment 7 is even more pertinent in helping students to make a decision in this case.

Ability and disposition to assess the moral acceptability of the alternative courses of action. Constituents of this attainment include:

7.1 Knowing that moral assessment is guided by two principles:

- a) it cannot be right for me to do x unless it is right for any person in the same sort of circumstances to do x.
- b) if the consequences of everyone's doing x in a given circumstance would be unacceptable, then it is not right for anyone to do x in that circumstance.

7.2 Ability and inclination to imagine for each alternative the consequences that would ensue if everyone in your circumstance were to engage in the action, and to reject the action as wrong if the imagined consequences are unacceptable.

7.3 Ability and inclination to put oneself imaginatively into the circumstances of

another person to appreciate the consequences each alternative course of action has for that person, and to reject the action as wrong if the imagined consequences are unacceptable.

7.4 Ability and disposition to consider the views of others concerning the moral acceptability of the alternative courses of action.

Attainment 7 explicitly sets out the rules by which to assess the moral acceptability of alternative courses of action. Suppose that students believe that one alternative is to talk to the shoplifter and convince her/him that stealing the T-shirt was wrong. Undoubtedly the shoplifter was aware of this when she/he stole the T-shirt. Now students are faced with the task of attempting to give reasons to the shoplifter to convince her/him that, if the act was wrong, then it should not have been done. An appeal to the shoplifter's self-interest (he might be caught and punished) is logically irrelevant in discussing the moral acceptability of a given action. The two principles in attainment 7.1, on the other hand, are relevant.

These two principles derive from a conception of morality which holds that a moral principle is acceptable if, and only if, all the judgments which logically derive from it are also acceptable (Singer, 1963). They encompass the principles of justice, impartiality and equality and thus rule out favouritism for any individual. In this particular case, one can use the role exchange test (attainment 7.3) to see if the shoplifter would find his/her action right if he/she was in the position of the store

owner. If the shoplifter, by putting him/herself into the circumstances of the store owner, came to appreciate the consequences of the theft for the store owner, he/she might come to view shoplifting as morally unacceptable, and refrain from doing it in future. In judging shoplifting as unacceptable in this circumstance, one must, to be consistent, also judge shoplifting as unacceptable in all similar circumstances. Attainment 7.2, which involves applying the universal consequences test, could also be useful in influencing the shoplifter to consider the moral acceptability of his/her action. Here one imagines what consequences could ensue if everyone in a particular circumstance engaged in a particular action. If the imagined consequences are unacceptable, then the action must be judged unacceptable.

The above discussion is not meant to imply that a single occurrence of appealing to the above-mentioned principles will be sufficient to educate a person to have the ability and disposition to assess the moral acceptability of alternative courses of action in all situations requiring it. But educating a person in whatever field, scientific, mathematical or moral, rarely happens overnight.

The shoplifting decision-making exercise is not typical of the activities suggested in Consumer Education 9/10, although there are others which require similar

competencies. It was chosen for examination here because it is the type of question which, unlike many others, is consistent with the philosophy of the curriculum. As such, teachers would not likely be able to help students resolve it (and, as stated in the 'Philosophy,' "accept responsibility for their actions") without developing at least some of the attainments of rational practical reasoning.

English 10

The goals and learning outcomes in the secondary English curriculum are the same for grades eight through twelve. Degree of emphasis and expected levels of achievement differentiate one grade from another. The grade ten course will be discussed in this section.

The English 10 resource book for teachers (1978) divides the curriculum into six sections: listening and speaking, language, reading, writing, communications media, and literature. Each section includes objectives classified into learning experiences, knowledge and skills, and attitudes. Many of the objectives listed under knowledge and skills and learning experiences in several of the six sections are encompassed, in general terms, in attainment five (critical thinking abilities) of Coombs' account of practical reasoning. Discussion here will focus on one such objective. Like the previous two sections in this chapter,

the concern is with demonstrating that, if students are to acquire certain knowledge, abilities or skills, then teachers must have the knowledge, abilities or skills first.

The objective to be analyzed is subsumed under Goal four - "develop in students a range of reading and study skills." It reads "the students should understand what the writer may have implied (at the inferential level of comprehension)(English 10: A Resource Book for Teachers, 1978, p. 69)." The teacher's resource book includes two suggested activities under this objective. One is a short reading from one prescribed textbook which deals with the difference between the denotative and the connotative use of words; inferences are not mentioned at all. The second is

Read and discuss Chapter 1 "Criteria for Critics" in order to show the importance of examining the communication-situation and making distinctions between reports, inferences, and judgments. "The Way it Seems" (pp. 11-12) deals with the making of inferences. The "Applications" (pp. 14, 16-17) give practice in making inferences. (ibid., p. 69).

"Criteria for Critics" is meant to give students the standards by which they can learn "to discriminate fact from opinion and truth from fiction in all messages" (Glatthorn, et al., 1971, p. 1) which they receive. An abbreviated account of how one evaluates the speaker (is he qualified in the field? has he a reliable past record? does he have any strong biases that could influence his opinions or

statements?)⁷ is provided. The next step, we are told, is to determine the speaker's purpose in sending a particular message - to inform, persuade, amuse, incite to action, and so on - (Glatthorn, et al., p. 3). The above two steps, combined with assessing the occasion and the medium of communication (television, newspapers) together make up the "communication situation."

The "communication form" is then discussed. The book classifies communications into three kinds of statements: reports, inferences and judgments. We are warned, however, that the classification system is not perfect.

First, it is not complete; many statements will not fit exactly into any of these three categories. Second, this classification is not airtight; many statements can be placed in two or three of the categories at the same time. Finally, it is arbitrary; it is simply one way of classifying things (*ibid.*, p. 17).

The paragraph then concludes:

Despite these limitations, however, the recognition of report, inference and judgment is useful to us in becoming better receivers.

It is difficult to understand why the authors of this textbook would advocate use of a classification system with the above recognized limitations. If their system is only one way, we might wonder why they did not choose a classification system with fewer problems. Their purpose,

⁷ Compare these standards with those of Ennis, outlined earlier in this chapter.

after all, is to provide students with a classification system which would facilitate the search for 'truth.' To this end, they have attempted to supply standards to assess reports, inferences and judgments. As the classification system is inadequate and the standards provided incomplete, the use of this chapter to teach students to recognize inferences is pedagogically indefensible. Furthermore, the authors' account of reports, inferences and judgments is also open to criticism.

Glatthorn, et al.. (1971) define an inference as an "informed guess," a "tentative explanation," and "a conclusion made about the unknown on the basis of the known (ibid., pp. 12-14)." These definitions may suffice in many circumstances. In order to test inferences, the authors suggest that we recognize their tentative nature by using qualifying terms such as 'probably', 'maybe,' or 'perhaps.' Again, in many circumstances, this may be good advice. In the case of deductive inferences, however, we are assured that our inference is correct if the premises are true and the argument valid. As there are no examples of deductive inferences in the textbook, perhaps one can speculate that the authors are unaware that such inferences exist. A further problem with this account of inferences is that it does not acknowledge that inferences are often judgments. Most likely, this problem arises because the authors' notion of 'judgment' is both circumscribed and confused.

A judgment, according to Glatthorn, et al., is "an expression of an opinion; a label placed upon a person or thing that reveals our feelings of liking and disliking." Because they are "individual and subjective" they are dangerous if accepted as reported, if they become "self-fulfilling prophecies" and because they "have a tendency to become final (ibid., p. 15)." A judgment should not be responded to as a report by trying to

. . . verify its contents. And initially you don't debate it as some arguable issue. Instead you begin by simply accepting it as an expression of feeling . . . Once you have accepted the feeling, you can then ask yourself whether the judgment is defensible (ibid., p. 16).

Glatthorn, et al. have confounded feelings, opinions and emotive language with judgments. Only the last phrase of the above quote indicates that they are aware that judgments are subject to assessment. They suggest three questions which can be used to assess judgments: "Is it supported by solid facts? How knowledgeable is the person making the judgment? Is he impartial, with nothing personal to gain from the judgment?" Only the first of these questions is unarguably always appropriate in assessing judgments. Because Glatthorn, et al. have only included judgments of personal tastes in their textbook, the latter two, focussing on appeals to authorities, are seen as suitable. Their examples are all of two sorts: those that state things like "all rock music is terrible" and "Scrape is the best blade on the market;" or descriptive statements like "she snarled back at

him" and "the lovely old lady smiled sweetly..." Presumably they are unaware that there are criteria, other than reliance on authorities, by which one can judge whether or not rock music is terrible or razor blades are good. Furthermore, the criteria for assessing these two judgments are quite different.

What is perhaps most problematic with this account of judgment and the accompanying illustrative examples is the fact that it trivializes the whole enterprise of making judgments. Apparently, Glatthorn, et al. are not cognizant of any other sense of judgment than the one they describe in their textbook. But, by focussing on largely insignificant types of judgments such as those above, they have distorted by omission a more important sense of judgment. Moral judgments about what actions are right or wrong or what should be done in a particular circumstance are based on more than "feelings of liking and disliking." Although it is quite reasonable for someone to 'feel' that a certain action is wrong, this is likely because the person has, in fact, reasons for thinking the action wrong. Perhaps she cannot immediately give the reasons, but, upon reflection, she will likely be able to do so. Past experience and past reasoning about actions of the kind in question will probably surface during the course of reflection. Assessing reliability of authorities may play a part in arriving at a judgment but students should be aware that reliance on the views of

others, even authorities in a field, is often more suitable for assessing empirical claims and not moral judgments. Paul Taylor succinctly makes this point. He states:

To call an assertion a judgment is . . . to indicate that it is made as a result of a process of weighing the reasons for and against whatever it is that is being asserted . . . When we begin such a process, we enter upon a course of reasoning for the purpose of coming to a decision about the value of something. We do this when there has been some doubt in our own mind or some dispute with others about the matter. The process of evaluation is thus aimed at deciding an issue, settling a question, or resolving a doubt (loc.cit., pp. 49-50)

To make and assess judgments is to do more than simply to have a feeling of liking or disliking. Although it is legitimate to teach students to recognize evaluative language when they see or hear it, it is educationally at least questionable to teach students that judgments are only feelings and that they can be defended by appealing to authorities.

Thomas Green suggests a plausible explanation for this mistaken notion of judgment. Because judgments are made in the absence of complete knowledge, we can never be certain that they are correct. He states:

. . . the grounds of judgment are never conclusive, and therefore it is perfectly possible for different men to give different judgments on the same matter and even in relation to the same grounds; and it may also be the case that such different judgments are equally reasonable. This point is immensely important in education. The fact that reasonable men may differ in matters of judgment is certain often construed by teachers as evidence that kinds of judgments are subjective or that, as opposed to judgments of fact, they are

merely expressions of opinion (ibid., p. 178)
Apparently this view is held by the authors of the textbook discussed above.

The Glatthorn, et al. textbook has been discussed at length in order to demonstrate that teachers who must rely on such a source for information to teach students how to identify and assess inferences is to mislead both teachers and students. If teachers were somewhat proficient at the kinds of abilities outlined in Coombs' account of critical thinking (attainment five) they would realize that this textbook was completely unsuitable for teaching the objective discussed above.

This same chapter is recommended as a preparation for analyzing bias in newspaper reporting. The teachers' resource book advises

Note particularly the selection of details, the use of loaded language, and the intrusion of value judgments (1978, p. 100).

Again value judgments are confused with opinions or assertions of feelings that are not subject to adequate justification. This approach may be adequate for teaching students to be cautious in accepting advertising claims but it is deficient for teaching students to analyze bias in newspaper reporting. Yet the intent of the curriculum appears to be that students learn to analyze social issues seriously. The teachers' resource book includes many suggestions for students to give speeches, debate, argue and

write position papers on such controversial topics as violence in sports, environmental issues, as well as on democracy, war and so on. In effect, many of these suggested activities are paradigm cases requiring practical reasoning. To debate topics such as "scientists must be allowed to experiment on humans" (ibid., p. 46) or "the hunting or polar bears should be banned" (ibid., p. 47) requires many of the attainments outlined in Coombs' account of practical reasoning. Minimally, debates such as these would demand the following:

1. Sensitivity to situations in which practical reasoning is required. Basically this is a sensitivity to decisions or actions which are likely to have consequences of such significance to oneself or others as to warrant serious reflection before acting.
3. Ability and disposition to identify or conceive of reasonable alternatives to the proposed course of action.
4. Ability and inclination to assemble, insofar as practically possible, all the information relevant to determining the relative worth of each course of action under consideration.
5. Ability to assess the accuracy of the information concerning the alternative courses of action.
7. Ability and disposition to assess the moral acceptability of the alternative courses of action.

To hold a debate without attention to the justification of arguments for and against the position is to reduce it to the level of expressions of or assertions about feelings.

Throughout the teacher resource book there are numerous

suggestions for activities to teach skills of critical analysis. None of the language textbooks prescribed, singly or in concert, nor the two non-fiction books that are meant to be used to teach these skills provide adequate coverage of the standards by which one assesses communications. Unless teachers are aware of the complexities and criteria involved in the evaluation of arguments, empirical, conceptual or value, they will be unable to fulfill the objectives of the English curriculum. The components of practical reasoning encompass the necessary complexity and criteria. If teachers acquired these attainments, the teaching of English would be substantially improved.

SUMMARY

This chapter has examined three secondary curriculum guides used in British Columbia - Social Studies 11, Consumer Education 9/10 and English 10. Discussion has focussed on some of the components of Coombs' account of practical reasoning in order to illustrate its value in the teaching of these three subjects. In fact, it has been claimed that teachers who have not learned specific components will be unable to teach these curricula with the prescribed resources. Although these three subjects were chosen for discussion, this does not mean that these are the only school subjects that require practical reasoning. Rather, the intent was to use them as examples of how

teaching could be improved if teachers were to become proficient at practical reasoning. Thus, the claim is that all subjects in school would be better taught should teachers become proficient at practical reasoning. Furthermore, this contention is also meant to encompass elementary school teachers, even though the focus has been on secondary school curricula.

The elementary social studies curriculum in British Columbia, for example, is similar to the secondary in that it has as one of its goals that students should learn to deal with issues. An issue is defined "as a matter of interest about which there is significant disagreement. The disagreement can involve matters of fact, matters of meaning or matters of value (1983, p. 7)." The 'Skills' appendix of the curriculum outlines decision-making skills to be taught, many of which are similar to some of the attainments of practical reasoning.

identify problem or issue; identify possible alternative solutions or objectives; gather, analyze and interpret information regarding the alternatives; evaluate the alternatives and establish which should be accorded higher priority in light of the information gathered and/or value preferences; test the priorities and analyze the consequence of each; plan a course of action; establish a group decision; take some action on the group's decision; evaluate the group's decision (ibid., p. 46).

Although the levels of achievement to be expected from elementary school students are obviously lower than what can be expected from secondary students, the abilities involved

in practical reasoning are required for fulfillment of curricular objectives at both levels.

CHAPTER IV

Strategic Acts and Practical Reasoning: Respect for Persons and Classroom Rules

According to Green, there is an inconsistency in the idea that teaching could go on without both the strategic and logical acts. Furthermore, he maintains that teaching "cannot be excellent without attention to both." (Green, 1971, p. 8)." In chapter three discussion focussed on improving the logical acts; in chapter four discussion will centre on the strategic acts. More specifically, it will be argued that strategic acts related to interpersonal relations in the classroom must logically be improved if teachers were to gain some expertise in practical reasoning.

As pointed out in Chapter one, Green believes that the logical and strategic acts of teaching can be distinguished primarily by how they are evaluated. The logical acts, he says, can be assessed independently of their consequences for learning. In his words:

An explanation will be a good one if it accounts for what is to be explained. If it is well constructed and without logical fault, then it is a good explanation even when it is not understood by anyone except its author . . . whether reasons are good or adequate to support a certain belief depend upon the logical properties of the relation between the belief and its reasons, and not on the psychological fact that someone happens to accept the reasons (ibid, p. 7).

Strategic acts, on the other hand, are evaluated mainly by their consequences for learning. As teaching is an

intentional activity, in which the aim is to get someone to learn something, then at least part of 'successful' teaching must include whether or not students have learned what the teacher aims to teach. In attempting to meet the aim, that is teaching someone something, a variety of strategic acts is employed.

Different kinds of abilities and knowledge are required for the strategic acts than for the logical acts of teaching. Green states that the former require "considerable knowledge of human behavior and motivation" and "an acquaintance with the laws of learning and human growth" while the latter require "a knowledge of the laws of thought (ibid., p. 8)." The logical acts can be displayed in a rather short period of time, perhaps a lesson, whereas the strategic acts will likely be demonstrated, and can thus be evaluated, only over a longer period.

Brief mention was made in chapter three of the strategic acts of choosing teaching methodologies and curriculum materials. Just as it was found that it was impossible to discuss the logical acts without some reference to strategic acts, it will be impossible also to discuss strategic acts without occasional reference to logical acts. They are logically intertwined.

One further point remains to be made with respect to the approach taken in this chapter. Some of the components

of Coombs' account of practical reasoning will be discussed in relation to respect for persons and classroom rules in order to illustrate the value of practical reasoning. The intention is to explain how rational practical reasoning would contribute to improved pedagogical practice. In effect, the major concern is with facilitation of student learning in a morally acceptable fashion.

Green's account of the requirements for improving strategic acts is limited to teachers acquiring knowledge of human behaviour and motivation as well as acquaintance with "laws of learning and human growth." As these requirements are phrased in only the most general terminology, there is little room to advance my central argument. Although several of Coombs' components are likely encompassed in Green's requirements, it will be more productive to examine interpersonal relations in the classroom by addressing first, the principle of respect for persons and, second, the making of rules.

It should be pointed out that Green does not include in his account of strategic acts any category of activities called 'interpersonal relations.' However, if one examines the list of examples of strategic acts he provides,⁸ one can

⁸ Green's list of strategic acts includes: motivating, counselling, evaluating, planning, encouraging, disciplining and questioning

distinguish two rather different types. First, there are those acts which are quite directly related to instructional aims. An example of this type might be the selection of questions appropriate for student abilities. A second type are those acts which are less directly related to instructional activities but which have important consequences for learning. Motivating and encouraging students are examples of this second type. It is this second type of activities which I have termed interpersonal relations.

Respect for Persons and the Critical Spirit

In chapter three, brief reference was made to maintaining a classroom atmosphere which was conducive to developing what Siegel (1980) describes as the "critical spirit" in order that students would develop the disposition to exercise critical thinking abilities, to be open-minded and intellectually honest. Siegel is concerned also with the critical spirit as it relates to ethical considerations arising in educational contexts. The manner of teaching, the "critical manner," reinforces the critical spirit. According to Siegel, the critical manner

. . . means, first that the teacher always recognizes the right of the student to question and demand reasons; and consequently recognizes an obligation to provide reasons whenever demanded. The critical manner thus demands of a teacher a willingness to subject all beliefs and practices to scrutiny, and so to allow students the genuine opportunity to understand the role reasons play in

justifying thought and action. The critical manner also demands honesty of a teacher; reasons presented by a teacher must be genuine reasons, and a teacher must honestly appraise the power of those reasons. In addition, the teacher must submit his or her reasons to the independent evaluation of the student (loc. cit., p 11).

Clearly, the critical manner as described above is closely tied to the logical acts of teaching. However, there are significant implications for the strategic acts. Siegel maintains that teaching ought to accord with the critical manner because, in his words, ". . . it would be immoral to teach in any other way (ibid., p. 13)." He justifies this claim by using the Kantian notion of respect for persons. As teaching involves interaction between persons, it must conform to the general requirements binding all interpersonal interactions. He states

. . . we must, if we are to conduct our interpersonal affairs morally, recognize and respect the fact that we are dealing with other persons who as such deserve respect - that is, we must show respect for persons. This includes the recognition that other persons are of equal moral worth, which entails that we treat other persons in such a way that their moral worth is respected. This in turn requires that we recognize other persons' needs, desires, and legitimate interests to be as worthy as our own (ibid., pp. 13-14).

The above remarks are concerned with the general principle of respect for persons. Siegel then applies this general principle to the teacher-student interaction.

What does it mean for a teacher to recognize the equal moral worth of students and to treat students with respect? Among other things, it means recognizing the student's right to question, to challenge, and to demand reasons and justifications for what is being taught. The teacher who fails to recognize these rights of the

student fails to treat the student with respect, for treating the student with respect involves recognizing the student's right to exercise his or her independent judgment and powers of evaluation (ibid., p. 14).

Before continuing, it may be useful to look at another influential account of personhood, one that, in essence, agrees with Siegel's. Richard Peters' view is that persons are "centres of valuation, decision, and choice (1966, p. 211)." Individuals will learn to think of themselves as persons only if they learn to think of themselves as autonomous bearers of rights with individual points of view. He says:

The concept of being a person . . . is derivative from the valuation placed in a society upon the determining role of individual points of view. Individuals will only [sic] tend to assert their rights as individuals, to take pride in their achievements, to deliberate carefully and choose 'for themselves' what they ought to do, and to develop their own individual style of emotional reaction - in other words they will only [sic] tend to manifest all the various properties which we associate with being 'persons' - if they are encouraged to do so (ibid., p. 211).

To ascertain the degree to which teacher-student interactions are guided by this view of respect for persons would require substantial empirical research. It seems reasonably likely, however, that lack of respect for students as persons, in the moral sense of the term, does characterize at least some classroom interactions. Buxton and Prichard (1973), in a study conducted in the U.S. found that, of the 815 students in their sample, ten per cent

answered "frequently" to the question "Have you ever been degraded or treated with disrespect by a teacher?" while another forty-five per cent answered "sometimes." Additionally, students perceived that their most violated right was teacher respect for their opinions. Because the sample was fairly small, it would not be appropriate to generalize the results found by Buxton and Prichard. However, it seems reasonable to assume that the "critical manner" of teaching is not found in many classrooms. Schools have been frequently criticized in recent years for stifling genuine inquiry, for their concern with the one right answer. John Goodlad's massive study of schooling is indicative in this regard. Summarizing some of his findings in an article entitled "What Some Schools and Classrooms Teach," Goodlad (1983) states that, in the schools he and his colleagues studied, independent thinking was not highly regarded. Students were required to memorize information from the textbook or given to them by the teacher at the expense of understanding the implications of that information. "Seeking 'right' answers, conforming and reproducing the known" are viewed as appropriate classroom behaviours. Goodlad also comments that his data suggested little possibility of students "developing productive and satisfying relations with others based on respect . . . (ibid., p. 17)." Of particular interest here, though, is his view of what might be a partial explanation for the nature of today's classrooms.

And why should we expect teachers to teach otherwise? This is the way they were taught in school and college (ibid., p. 15).

Unless teachers were to develop the abilities and dispositions outlined in Coombs' account of practical reasoning, the situation described by Goodlad and by Buxton and Prichard could not be improved. The principle of respect for persons includes many of the components of practical reasoning. To ask the question 'how should persons be treated?' is tantamount to asking the basic question of practical reasoning, 'what should be done?' In asking the question seriously, one is committed to choosing the best alternative course of action open to oneself, on the basis of good reasons. And, as pointed out in chapter three, the canons of reasoning for the justification of value judgments are rules of relevance and rules of valid inference.

Rules of valid inference are covered by component five of Coombs' account and include those abilities required to assess the accuracy of information (critical thinking abilities). Although assessment of the facts of any particular situation is crucial to rational practical reasoning, it is the rules of relevance which will be discussed here. Given that respect for persons is a moral principle, it seems appropriate to concentrate on those components which specifically relate to moral reasoning. It is, in fact, not too much to say that moral reasoning is essentially reasoning about how persons are to be treated.

In order to understand and apply the principle of respect for persons, one would first need to acquire several of the components of Coombs' account of practical reasoning. Component 1.1.1, knowledge of what sorts of things are basic values for human beings in general, is clearly required. Without this knowledge, it would be impossible to distinguish persons from non-human animals. Component 1.2 is also central. It requires:

Sensitivity to morally hazardous actions, that is, actions which require assessment from the moral point of view. This sensitivity alerts persons to (1) actions that may have consequences for others which the actor could not accept if they were to befall him and (2) actions which may have unacceptable consequences were everyone to engage in them. Such sensitivity is composed of a variety of more specific attainments including the following:

- 1.2.1 Knowledge of basic moral rules.
- 1.2.2 Knowledge of what generally harms human beings either physically or emotionally.
- 1.2.3 Possession of a wide range of moral concepts. . .

To say that using the principle of respect for persons requires the above sensitivity and knowledge is almost tautologous. The tautology is, however, a revealing one. To decide, in the strong sense, that one ought to treat X in Y fashion logically requires justification from the moral point of view. Similarly, to justify a decision that one ought to treat X in a certain way requires component 7.

Ability and disposition to assess the moral acceptability of the alternative courses of action. Constituents of this attainment include:

- 7.1 Knowing that moral assessment is guided by

two principles:

- (a) It cannot be right for me to do X unless it is right for any person in the same sort of circumstances to do X.
- (b) If the consequences of everyone's doing X in a given circumstance would be unacceptable, then it is not right for anyone to do X in that circumstance.

As pointed out in chapter three, the two principles of moral assessment in attainment 7.1 derive from a view of morality which maintains that a moral principle is acceptable if, and only if, all the judgments logically derived from it are also acceptable (Singer, 1963). Encompassed in them are the principles of justice, impartiality and equality, ruling out favouritism for any individual. Attainments 7.2 and 7.3 can be used to challenge the acceptability of a moral judgment about how others are to be treated through the universal consequences test and role exchange test, respectively. These two tests, described in chapter three, give concrete form to the two principles of moral assessment.

A hypothetical example, though probably not an unrealistic one, may help to illustrate how the above attainments would apply in the classroom. Suppose a teacher was to make a sarcastic remark in response to a student's naive, but rather foolish, question. In responding in such a fashion, the teacher is violating the principle of respect for persons. Sarcasm may provide amusement for the rest of the class, but is likely to embarrass the 'offending'

student, leaving him with diminished self-respect. This course of action cannot be considered morally acceptable. Knowledge of the moral concept of 'demeaning,' (most teachers probably know the meaning, but may be unaware that it is a moral concept), combined with the ability and disposition to assess the moral acceptability of one's actions would be helpful in such a situation.

If teachers were to become proficient in practical reasoning, the above type of action, and others which violate the principle of respect for persons, would be less likely to occur, thus facilitating student motivation for learning. In addition to the moral justification for teaching in the "critical manner," for treating students qua persons with respect, it is at least reasonable to argue that such teaching might aid in developing the student's disposition to act in the same way. Here again, the close connection between logical and strategic acts is evident.

Making Classroom Rules

Interpersonal relations in the classroom are governed, at least in part, by teacher-made rules. Certain minimum conditions of order must obtain in order for education to take place. In addition to this instrumental need for rules, however, teachers must also help students develop an understanding of what rules are and why they are important in protecting the rights and interests of individuals. Thus

the formulation of rules to maintain order in the classroom, a strategic act, has important implications for student learning about rules. Although many of the rules governing behaviour in school are formulated by administrators (no running in the hall, for example) or by legislators (compulsory attendance), the individual teacher has a fair degree of autonomy with respect to what rules shall be established within his or her class. It would seem, then, that the formulation of classroom rules is an activity requiring practical reasoning. Teachers have alternative ways of answering the question "what should be done with respect to classroom rules?" While a large number of alternatives is conceivable, only those which serve particular purposes and which are justifiable ought to be chosen. Before discussing the issue of justifying rules, however, it may be useful to clarify what sorts of rules are of concern.

Kurt Baier has distinguished six different senses in which the word 'rule' is used. The six are:

- 1) regulations, which are in force only after they have been properly adopted or laid down by someone; to be in force, regulations presuppose the whole social apparatus of rule-enforcement, including being supported by some sort of sanction.
- 2) customs or mores, which are not laid down by any one in particular; mores vary from group to group, are taught to the young, and rely on social pressures for their continuance.
- 3) maxims or principles, which are adopted by individuals to govern personal conduct; they do

not depend logically for support upon social pressures.

- 4) canons, which are formulations of practical wisdom; canons provide simple verbal aids to those trying to acquire a skill.
- 5) regularities or uniformities, which merely describe what is regular about something.
- 6) constitutive rules, which constitute the nature of a certain rule determined activity (Baier, 1965, pp. 68-71)

According to Baier, only the first and second usages, regulations and mores, are social rules; that is, they imply the existence of social pressures in support of the rules. They differ, however, in the following respects:

Regulations come into existence by being laid down, mores simply by coming to be supported; regulations change by being deliberately altered by the person authorized to do so, mores change when new types of conduct come to be either backed or rejected; regulations come to an end by being abolished, mores by ceasing to be supported . . . while mores are supported by comparatively indeterminate and unorganized pressures, those which support regulations are highly organized and determinate (ibid., p. 72).

Only the first sense of rule, the regulation sense, is directly relevant to the central question of this section (what classroom rules should be established?), although the other senses are probably also of concern to teachers in carrying out other activities. The second and third senses, mores and maxims/principles respectively, will be discussed as they pertain to the central question.

Using the features of rules identified by Baier, it

seems that teachers are authorized to make and enforce rules, in the regulation sense. The problem is to decide how to go about justifying particular rules. R.S. Peters' claim that "Either they are justifiable by reference to fundamental moral principles or they are clearly necessary for the particular purpose in hand or to avoid the inconvenience with which institutions are beset if they lack them (Peters, 1966, p. 273)" provides a starting point.

Although Peters has marked off three ways to justify the existence of rules, it would seem that the three are not entirely distinct. To be justifiable, rules must facilitate the achievement of particular purposes while, at the same time, adhering to fundamental moral principles.⁹ It is conceivable that rules could be established which would be offensive on moral grounds. To justify rules, then, both criteria must be applied.

Few educators would disagree that there are two primary purposes for establishing classroom rules. The first is to establish an appropriate milieu to promote student learning, the second is to help students develop understanding of

⁹ Peters' third category, avoiding inconvenience, is relatively insignificant for present purposes. Even the rules established here, though, should not violate fundamental moral principles.

rules, in order that they come to conduct their lives in accordance with societal rules and personally held moral principles. Proficiency in practical reasoning would enhance teacher ability to formulate justifiable rules to serve both purposes.

To create a classroom milieu conducive to learning requires choosing among alternative courses of action. Various components of Coombs' account of practical reasoning are needed in making these choices. Component 1, sensitivity to situations in which practical reasoning is required, is obviously necessary as is component 2, disposition to undertake practical reasoning when such is required.¹⁰ Although these points may seem to be trivial, they are important enough to bear stating. It is quite conceivable that some teachers may feel that the issue of classroom rules is not worthy of serious reflection.

Attainment 3 is also necessary for those attempting to decide which rules will provide an appropriate learning climate. It states:

Ability and disposition to identify or conceive of reasonable alternatives to the proposed course of

¹⁰ Components 1 and 2 include several sub-components, which are not set out in full here but which are relevant to the discussion. They have been included in toto in the previous section.

action. This ability likely depends in part on having:

3.1 Knowledge of various means of realizing certain values.

3.2 Knowledge of the importance of considering reasonable alternatives.

Despite the fact that knowledge related to various means of obtaining a suitable learning milieu is needed here, knowledge which is not specifically included in Coombs' account, the above component is nonetheless of some import in this discussion. If teachers are not disposed to look at various means of achieving their purpose, they are less likely to establish effective and justifiable rules/regulations. To promote student learning may require different approaches for different classes, depending on such factors as student maturity and ability, or the general school climate. One option which is seen as viable in achieving an orderly classroom is to establish rules to govern all conduct. But if it is true, as Duke argues, that schools may in general have too many rules, then the formulation of excessive numbers of rules may in fact negate the purpose of facilitating learning. He cites evidence indicating

that students resent the overabundance of school rules devoted to controlling every aspect of their behaviour. They find such a climate of control dehumanizing. An organization where everything from chewing gum to going to the bathroom is subject to regulation hardly seems conducive to the development of responsible young people (Duke, 1978, p. 121).

Duke's remarks are important for three reasons. First, it seems that the formulation of a myriad of rules runs counter to the purpose of promoting student learning and may instead engender alienation or resentment. Second, it seems that many rules may violate the fundamental moral principle of respect for persons. Third, rather than contributing to student understanding about the aim of rules and principles, the opposite seems likely to occur. If teachers wish to achieve their purposes, they must look beyond the alternative of establishing rules to govern all aspects of student behaviour.

Brief mention of the principle of respect for persons was made above. Rules, to be justifiable, must adhere to fundamental principles, including respect for persons, in addition to achieving their purpose. Component 7 of Coombs' account of practical reasoning provides guidance in this regard. It states:

Ability and disposition to assess the moral acceptability of the alternative courses of action. Constituents of this attainment include:

7.1 Knowing that moral assessment is guided by two principles:

- a) It cannot be right for me to do x unless it is right for any person in the same sort of circumstances to do x.
- b) If the consequences of everyone's doing x in a given circumstance would be unacceptable, then it is not right for anyone to do x in that circumstance.

Constituents 7.2, 7.3 and 7.4 have been stated before and will not be repeated here. It is sufficient to note that these two principles, as pointed out earlier, encompass the

principles of justice, impartiality and equality and are embodied concretely in the universal consequences test and role exchange test (attainments 7.2 and 7.3). Use of these tests would enable teachers to be more certain that their judgments about the formulation of specific rules are justifiable.

The regulation of toilet-going behaviour in school is probably the most obvious example of rules which transgress the principle of respect for persons. Buxton and Prichard (1973), in a study cited previously, received the following responses to the question "Have you been denied the use of the restroom when necessary?": "frequently" - thirty per cent, "sometimes" - forty-eight per cent. Although it is undoubtedly true that some students ask to go to the washroom in order to avoid classroom work, it would seem that other means of dealing with such malingerers could be found. It is demeaning to regulate normal bodily functions in such a fashion.

Students must come to understand the point of rules in order to understand the importance of conforming with them. If specific rules are perceived as arbitrary, students will not likely learn to respect rules, nor to come to see that they are often based on more general moral principles. Students should be aware that some rules are justified on purely utilitarian grounds and that it is prudent to conform to them (many mores and customs fit here), while others are

justified by invoking higher order principles and that it is immoral not to obey them. Both types of rules can be justified more readily than those which are meant merely to maintain the authority of the teacher. While it may be easier, particularly with younger children, to encourage simple compliance with the teacher's rules, such methods will not develop student understanding of and respect for rules and principles, a necessary prerequisite for adult citizenship in a liberal democratic society. Furthermore, respect for persons requires that students are entitled to question the existence and purpose of rules, and are entitled to genuine answers to these questions. If teachers were to become proficient at the abilities included in Coombs' conception of practical reasoning, they would see the necessity of and be able to provide justifiable answers to the questions.

The preceding remarks have brought the discussion to the second major purpose for establishing classroom rules, the development of student understanding of and respect for rules. It is taken for granted in our society that students, as they mature, will learn to govern their conduct in accordance with rules and principles. Yet it is not apparent that coherent efforts to develop such understanding and respect are widespread.

Component 9.1 of Coombs' account is relevant here. It reads: "Understanding why a system of public morality is

necessary if we are to have the sort of social order in which one can lead a fulfilling life." Although it would be presumptuous to suggest that the above understanding could be easily taught, it seems clear that it is logically required for the development of student understanding of and respect for rules, in both the regulation and maxim/principle senses. Despite the difficulties in helping students develop this understanding, some brief explication of it is required.

Depending on the nature of one's society, a system of public morality could include Baier's first three senses of rules, that is, regulations, customs or mores, and maxims or principles. In our society, public morality encompasses both regulations, in the form of laws, and principles. Although it is arguable whether or not it also includes customs, it is not necessary to settle the point in this paper. It is necessary, however, to consider why students need to understand the importance of a system of public morality.

Baier argues that customs and laws (rules, in the regulation sense) are justified in roughly the same way. He states that

Living outside groups with a common way of life would be living in in a state in which, as Hobbes claimed, life is 'solitary, poor, nasty, brutish and short,' if possible at all. However, to remedy this it is not necessary, as Hobbes claimed, to impose laws on men. Customs are enough to meet the need pointed out by Hobbes (*loc.cit.*, p. 78).

This instrumental need for rules, and other social practices

and institutions, has been argued for frequently by utilitarians. A system of rules, in this view, can be justified on the grounds that it effectively promotes the best interests of society. B.J. Diggs summarizes the rule utilitarian position as follows:

The assumption is that men have various destinations which they want to reach and the social aim is to provide the system of institutions which will be most effective in helping them along. As men together devise such public instruments as roads and bridges, which none alone could construct, and then regulate the use of these instruments for the "public good," so on this view men together have developed such institutions as "promising," "a system of property," etc. These institutions may not have arisen through deliberate design, although (there often seems to be the assumption that) if an institution or practice has arisen, then it must have been rewarding, and consequently, must have served some purpose. The instrumental character of these institutions is evidenced more directly, however, by the fact that persons hold and dispose of property, make promises, and, quite generally, engage in the life of their institutions with goals in mind (Diggs, 1968, p. 229-230).

The weakness in this position, Diggs convincingly argues, is that the significant distinction between a system of rules designed to contribute to some goal and a system of moral rules has been neglected. Moral rules, he states, "thus seem to be conceived as supports for and ancillary to the public institutions which they presuppose (ibid., p. 231)." Persons who conceive of moral rules in this way tend to see them as external to themselves, only as restraints on their behaviour. In effect, this view promotes a negative morality, described by Diggs as a "police" view, with moral rules seen only as "protective devices."

This utilitarian justification for a system of public morality is, in my view, not the kind of understanding demanded by life in a liberal democratic society. Diggs suggests that moral rules can be internalized in a more positive way, one which is more akin to Coombs' rational practical reasoner. Diggs describes his conception of a moral community in the following way:

When the idea of such a community is attained and made to govern practice . . . then the moral rules "Do not lie," "Do not steal," etc., will appear in a new light. One who acts under such an idea will teach these rules neither as primarily negative and restraining, nor primarily as supports or protections for particular institutions. For although he may view the rules in these ways, he will regard them primarily as affirming in so many different ways the fundamental principle "Live under the idea of law." The principle may be stated negatively, in the form "Do not make an exception of oneself," but his primary aim in teaching the rules will be to raise one to the conception of a moral community. Since such a community potentially includes all men, part of the challenge may be to find particular institutions in which the conception may be realized (ibid., p. 236).

Moral rules, regarded in this way, are not instrumentally justified but rest on more fundamental moral principles such as respect for persons and the two generalization principles in component 7.1 of Coombs' conception of practical reasoning. Michael Scriven puts the point another way when he distinguishes between a strong and a weak morality. In his words, "Weak morality involves the recognition of the rights of others but no positive interest in furthering their welfare other than by such recognition; strong

morality involves identification with the interests of others (1966, p. 232)." His view of a moral system rests upon the principle of equal consideration, from which all other moral principles can be developed.

For students to come to understand and respect rules, they must learn to distinguish between instrumental rules, and moral rules and principles. If they are not helped to learn the point of rules, if they are not helped to learn that rules are not the arbitrary whims of some authority, they are unlikely to learn to do more than follow rules mechanically, or through fear of punishment. Simple compliance with rules is not the desired end, but rather understanding in enough depth to ensure that one knows which rules to apply in new circumstances and the reasons therefore. Using Baier's terminology, rules in the regulation sense should be formulated so as to facilitate the development of personally held maxims/principles that are congruent with fundamental moral principles such as respect for persons, justice, impartiality and equality. Regulations, too, should adhere to moral principles if they are to serve the two chief purposes of teachers. The abilities, knowledge and dispositions included in Coombs' account of practical reasoning are essential not only for teacher decision making about rules, but are essential also for developing student understanding about moral rules and principles and how they operate in our practical judgments.

Summary

In this chapter, some of the components of Coombs' account of practical reasoning were examined in relation to Green's category of strategic teaching acts. It was argued that interpersonal relations in the classroom would be improved, and learning facilitated, if teachers were to become proficient in practical reasoning. Two aspects of interpersonal relations were discussed, the principle of respect for persons and the formulation of classroom rules, in order to illustrate the value of practical reasoning.

It was not claimed that proficiency in practical reasoning obviates the need for knowledge about human behaviour and motivation. Rather the justification for treating students in a particular way, qua persons, rests on reasoning, the invocation of moral principles, and the purpose of teaching. Other related strategic acts, such as the enforcement of rules and the choosing of appropriate sanctions for rule-breakers were not discussed, although it can be argued that similar considerations would be relevant. Whereas the central point of the chapter was that the strategic acts of teaching would be improved if teachers were to develop their practical reasoning capacities, it was maintained that students must be helped to develop these capacities as well.

CHAPTER V

SUMMARY OF THE ARGUMENT

This paper has attempted to make a case for inclusion of the study of practical reasoning in teacher education programs. Jerrold Coombs' conception of practical reasoning was described in some detail in chapter two in order to make clear the numerous attainments required for rational practical judgment. These attainments, which include a variety of abilities, sensitivities and dispositions, are listed at the end of the chapter and are referred to throughout chapters three and four.

Chapter three comprised an examination of the fruitfulness of Coombs' conception of practical reasoning with respect to the logical acts of teaching. Using examples from three secondary curriculum guides in British Columbia - Social Studies, Consumer Education and English - it was argued that the objectives for student learning which teachers are to fulfill logically cannot be achieved without those teachers having some competence in practical reasoning.

In Chapter four, the strategic teaching acts were discussed in relation to practical reasoning. Specifically, a case was made that interpersonal relations in the classroom would be improved and, concomitantly, learning

facilitated if teachers were to acquire the attainments identified by Coombs. Discussion focussed on two aspects of interpersonal relations in the classroom - first, the fundamental moral principle of respect for persons and second, at a more concrete level, the making of classroom rules. It was argued that, on both logical and moral grounds, teaching would be improved if teachers were to gain some expertise in practical reasoning.

RECOMMENDATIONS FOR CHANGE IN TEACHER EDUCATION

If the case made in chapters three and four is at all convincing, then it would appear that teacher education programs must be altered to include studies which will facilitate development of the attainments of practical reasoning. While the rational practical reasoner may well be an ideal, the abilities, sensitivities, dispositions and knowledge identified by Coombs are sufficiently explicated to serve as a guide to educators in designing materials and strategies for developing persons' practical reasoning. Which materials and strategies will be efficacious will, of course, require substantial research. To await conclusive evidence on which are the best materials and strategies, however, seems unduly cautious. We may not yet know the best method to teach reading but this does not prevent us from trying a variety of approaches.

One further limitation remains to be articulated. As

pointed out earlier, the rational practical reasoner is an ideal, not completely attainable. To suggest changes in teacher education programs which are so rigorous as to be also unattainable would run counter to common sense. Hence, the suggestions that follow are not so far reaching or stringent as to be impractical. They could feasibly be incorporated into existing teacher education programs, assuming that the appropriate commitment was present.

Some aspects of teacher education programs, while important, will not be discussed here. For example, it is obvious that subject matter competence is a requirement for teachers, as is some exposure to the social sciences, which provide understanding of the cultural context in which schools operate. As well, the study of psychology, to increase understanding of human development and learning, is also essential. These elements of teacher education are already a part of most programs and are not of direct relevance to the present discussion. Curriculum and instruction courses, already present in most programs are also needed. In my view, however, these courses should have a different emphasis. In addition to introducing preservice teachers to different instructional approaches, materials and curriculum models, such courses should also stress those neglected aspects of teaching which lead to fulfillment of the non-factual objectives of the curriculum - those objectives which were discussed as logical acts in chapter

three. Although we have paid lip service to developing students' critical thinking abilities, we have not provided teachers with the appropriate preparation and resources to do so. Curriculum and instruction courses should also help prospective teachers to use and adapt existing resources to meet these educational objectives.

The type of curriculum and instruction course sketched above would be meant to change classroom practice to conform with the material covered in a compulsory study of critical thinking, philosophy of education, and, for want of a better label, the value domain. Because these labels are somewhat ambiguous, a brief account of each is offered which is intended to clarify what is meant in each case. The demarcation of each area, as described below, is somewhat artificial as it is likely that some aspects of each would arise in all three areas.

The study of critical thinking should include consideration and development of those abilities and dispositions outlined in attainments five and six of Coombs' account of practical reasoning. Such material may be viewed by some as too esoteric and thus unnecessary or impractical. Yet the U.S. College Board, in a recent document entitled Academic Preparation for College: What Students Need to Know and be Able to Do, has listed reasoning competency as essential to all effective work in postsecondary institutions. Many of the reasoning abilities identified by

the Board are included in Coombs' account. At a more concrete level, four years ago the massive California State University (nineteen campuses, three hundred thousand students) instituted a requirement that all students must complete a critical thinking course for graduation. The even larger community college system has now established a similar requirement. This requirement, part of California State University Chancellor's Office Executive Order 338 defines critical thinking as follows:

Instruction in critical thinking is to be designed to achieve [sic] an understanding of the relationship of language to logic, which should lead to the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to reach factual or judgmental conclusions based on sound inferences drawn from unambiguous statements of knowledge or belief. The minimal competence to be expected at the successful conclusion of instruction in critical thinking should be the ability to distinguish fact from judgment, belief from knowledge, and skills in elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought(CT News, Sept. 1984, p. 1).

Again, there is substantial overlap with the abilities outlined in attainment five of Coombs' conception of practical reasoning. While there are undoubtedly problems which must be overcome in implementing a requirement of this sort, they are not insurmountable if suitable resolve is present. Such courses are being taught in a variety of postsecondary institutions and there is now a large variety of resources available to teach them.

In addition to critical thinking, philosophy of

education should be studied. There is a variety of topics which might conceivably be covered under this rubric. One common approach, for example, is the survey course in the history of educational ideas - the study of the works of the 'great educators.' Although such courses are certainly of value, they are unlikely to develop the attainments which are demanded by the activities of teaching as described in chapters three and four. More effective, from this perspective, would be a focus on the analysis of concepts which are crucial in education - these might include concepts like education, schooling, teaching, learning, training, socializing, indoctrination, knowledge, and so on. A variety of moral concepts pertinent to education (discipline, punishment, authority, freedom, autonomy, equality) are of import too. Education is, after all, fundamentally a moral enterprise. As well as consideration of pivotal concepts and their place in educational practice, pre-service teachers must come to understand the distinction among conceptual, empirical and normative claims and questions and the role of each in reasoning about aspects of educational practice.

Finally, if we wish to develop preservice teachers' practical reasoning, we must engage them in examination of what I termed earlier the value domain. Because normative questions in education arise continually, we must bring teachers to the understanding that, like empirical.

questions, they can be discussed in a rational manner. Requisite to this understanding is some consideration of value theory. Paul Taylor's book, Normative Discourse, would be most salient for this purpose, in my view. Taylor is concerned with the logic of evaluating and prescribing. In outlining his concerns in the preface to his book, he provides what could be a brief description of the type of study I believe would be needed. Taylor says:

I am concerned with the following questions: What is it to evaluate something? What is it to prescribe an act to someone? How can we justify our evaluations and prescriptions? (loc. cit., p. vii).

He offers an account of what we are doing when we make and justify evaluations and prescriptions - essentially, the constituents of normative discourse. In order to understand what it means to be rational, Taylor takes on two tasks: first, the key concepts used in carrying on normative discourse are made clear and, second, the rules of reasoning which govern the justification of normative assertions are made explicit. Reflection on Taylor's value theory should provide pre-service teachers with a much needed perspective on education as a fundamentally moral undertaking. As such, it behooves them to grasp the nature of moral judgments and the standards by which they are justified. Education is beset by normative questions; to provide answers to such questions as 'what shall be taught?' 'to whom?' 'in what manner?' requires understanding of the criteria we use to make and justify our practical judgments.

I have not suggested that the study of critical thinking, philosophy of education, and the value domain, as sketched above, is sufficient to develop all the abilities, dispositions, sensitivities and knowledge of the rational practical reasoner. In fact, Coombs, in a recent paper, has argued that, while it is possible to teach some of the relevant concepts and distinctions at least partly by didactic means, much more is necessary. He says

. . . it seems likely that good judgment in using these concepts and distinctions can be developed only by participating in forms of social living in which good judgment is exemplified and rewarded (1984, p. 19).

The task of creating forms of social living in which good judgment is exemplified and rewarded is beyond the purview of teacher education programs. The suggestions I have made, then, are seen as the minimum that teacher education programs should require of prospective teachers. The intellectual and moral dimensions of the activities of teaching demand at least that.

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