Language and Reason

Approaches to Semiotics
74

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Bruce B. Wavell

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Sure, he that made us with such large discourse,
Looking before and after, gave us not
That capability and godlike reason
To fust in us unus'd.

..... *Hamlet*, IV, iv, 32.

Our civilization is still in the middle stage,
scarcely beast, in that it is no longer wholly
guided by instinct; scarcely human, in that it is
not yet wholly guided by reason.

..... Theodore Dreiser

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FOREWORD

Common-sense reasoning may be a much more ingenius and effective instrument in reaching judgments than many philosophers have generally acknowledged. The fact is that in the issues demanding attention in their daily lives, philosophers will rarely use the syllogisms of traditional logic or the elaborate formulae of symbolic construction: they will use a common-sense mode of deliberation and trust its results.

An appreciation of common-sense reason and the explication of its origin and structure have been the central preoccupations of Bruce Wavell's philosophical career. Partly through the discovery of the inadequacies of formal logic, particularly in the process of teaching the subject, but more through an increasing awareness of the richness in ordinary language and its natural modes of deliberation, Wavell has devoted his philosophic talents to developing an extensive analysis of common-sense reason and how it functions. While contributing abundant insights into language, statements, words and meanings, the philosophy of language, by approaching linguistic issues empirically, has tended to work piecemeal. In Wavell's view, it requires a structured understanding of language, a comprehensive semiotic, which it is, through its own method, unable to provide. Wavell has therefore given priority to the theoretical problem of uncovering and describing the overall organization of the English language, from which he then can derive the nature and functioning of common-sense reason in the English-speaking cultural context.

The task of explicating common-sense reason is given urgency by what Wavell believes to be its cultural relevance. Scientific reasoning

actually had grown out of common sense and is, in fact, a refinement of many of its elements. With its astounding achievements in the modern world in scientific discovery and technological achievement, the offspring, scientific reason, has gained our admiration and approval while the parent, common sense, has lain in neglect. The control of technology for human benefit rather than destruction demands such a refinement of common-sense reason that it can match scientific reason in its power and cultural needs in their complexity.

A native of Hove, England, Bruce B. Wavell attended the lectures of Wittgenstein and G. E. Moore when an undergraduate at Cambridge. Following a tour of duty with the Royal Corps of Signals, he completed his B. Sc. and then his Ph. D. in Logic and Methodology at the University of London in 1958. His dissertation, under Sir Karl Popper's supervision, was entitled 'A Generalization of the Truth-Table Method'. From 1959 to 1982 he served on the faculty of Rollins College, from which he retired as William R. Kenan, Jr. Professor of Philosophy.

Wavell was in the process of preparing for publication manuscripts on which he had been working for some time, when he died suddenly in 1983. The proposal of his colleagues in the Department of Philosophy and Religion to complete the collection, editing and dissemination of his work won the Hugh and Jeanette McKean Award in 1984. Through the generosity of this gift, Professors Sara Ann Ketchum, Karl E. Peters, J. Thomas Cook and I met through the January Winter Term in 1985, with the assistance of three students, Paul Normann, Michael Burkeley, and Scott Adams, to review and collate the relevant materials. A bibliography resulting from this work appears later in this volume. We are pleased to be able now to offer this book to a wider audience, for the further examination of Bruce Wavell's work and evaluation of its results.

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A. Arnold Wettstein, Director
Wavell Papers Project

PREFACE

Henry Sidgwick held the view that common sense is a mass of crude ore from which philosophers can extract valuable metals.* I share this view and I have tried in this book to demonstrate its truth by extracting from common sense what seems to me to be its most valuable 'metal' – namely, *common-sense reason.*

Sidgwick performed his philosophical extractions by employing a combination of intuitive digging and critical refining. Fortunately, additional, more reliable, linguistic methods are available today and I have therefore used them extensively – so much so that this book can be described, quite accurately, as an attempt to determine the nature of common-sense reason by inferring this from the organization and uses of natural language. However, I have to qualify this by adding that in my early efforts to achieve this aim I soon discovered that neither scientific linguistics nor linguistic philosophy provides enough information about the overall organization of English – the language to which my investigation is restricted – to permit such an inference. I have been obliged, therefore, to develop a theory of English which provides the information I require. This is a *semiotic* theory in which the language is analyzed on twelve levels of abstraction – four syntactical, three semantic, and five pragmatic – that are depicted as functioning together to make an integrated, organic whole. I have made use of established results in descriptive linguistics wherever possible, but the unifying principles of the theory are new,

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* See his "Philosophy of Common Sense" in *Lectures on the Philosophy of Kant*, ed. J. Ward (London 1905), pp. 406-29.

as are some of the details. In view of this I should like to think that the theory will be of interest to linguists as well as philosophers.

The picture of common-sense reason that emerges by inference from this theory of English conflicts with the widespread view that common sense is naïve: in fact, it turns out to be more subtle than is usually supposed. I am led to the conclusion that common sense has encountered, and has its own solutions for, many of the problems that are perennially discussed in philosophy. This suggests that common sense contains a natural 'wisdom' which, I conjecture, is due, not to the brilliance of our ancestors but, rather, to the operation of natural selection in the course of the long evolution of language.

I draw these conclusions from applications of the semiotic theory of English to two areas of everyday discourse in which common-sense reason plays a central rôle – namely, factual and moral discourse. In the former case, the application produces accounts of the common-sense concepts of truth, probability, necessity, knowledge and causality which lead me to the conclusion that common sense has its own, far from obvious, epistemology. Similarly, in the latter case, the application produces accounts of the common-sense concepts of obligation and duty, rightness and justice, goodness, standards, norms, ideals, and supererogation, which strongly suggest that common sense contains a rational system of ethics which differs in important ways from traditional philosophical systems. The two applications, taken together, provide a number of clues to the nature of common-sense reason.

Following these applications I attempt to remove some philosophical barriers to the understanding of common-sense reason by offering a demonstration that several leading traditional philosophical views are based on one or other of two fallacies, both of which involve oversimplified views of the overall organization of ordinary language. Some rationalist and empiricist doctrines, I argue, commit the *Semantic Fallacy*, which takes language to be a purely semantic structure; some pragmatic doctrines, on the other hand, commit the *Pragmatic Fallacy*, which assumes that natural language is explicable merely in terms of pragmatics. My illustrations are chosen from the philosophies of Locke, Berkeley, Kant, James, and Wittgenstein.

With these barriers to understanding out of the way I take up the main task of the book – namely, to determine the nature and func-

tions of common-sense reason. My conclusions, stated roughly, are: (a) that common-sense *reasons* are symbolic motive-surrogates – actually, the force-action structures that are signalled by speech acts; (b) that common-sense *reason* is a motivational system of a purely conceptual kind which functions as an alternative to, and is sometimes in competition with, the drives, impulses, desires and urges that are studied in psychology; and (c) that common-sense *reasoning* arises out of the systematic relations that hold between rational motives and is subject to a *natural logic* that is in many ways quite different from either traditional or modern formal logic. In support of this theory I show how it relates to the psychological theory of motivation, how it explains the differences between rational motivation and a particular form of non-rational motivation – namely, suggestion – and how it not only explains the traditional logical fallacies but also uncovers a number of new ones. And I attempt to show how the peculiarities of rational motives make possible the uses of common-sense reason in science, the law, morality and everyday prudential thinking.

In the final chapter I draw some conclusions, both theoretical and practical, from the theories of language and reason. These conclusions have to do with: the need to develop the natural logic to which I referred in the preceding paragraph; the problems of the 'cultural lag' and the 'two cultures'; the possibility of making parliamentary procedure more rational; and the concepts *God* and *Logos*. The book ends with a discussion of the implications of the theory of common-sense reason for the aims and methods of philosophy.

Since my aim in this book has obliged me to synthesize a wide variety of material, I have naturally incurred many intellectual debts. Those philosophers to whom I am most conscious of being indebted are: L. Wittgenstein, whose lectures, which I attended in 1935-36, started my life-long interest in natural language; J. L. Austin, without whose theory of speech acts I would have made very little progress; Stephen Toulmin, from whose many insights into practical reason I am always profiting; Sir Karl Popper, who supervised my doctoral thesis from which the ideas in this book have evolved; and Charles Morris, for some of the basic concepts of semiotics.

I am grateful to Stephen Toulmin and to my colleagues Dan DeNicola and Karl Peters for reading portions of the first draft of this book, and to Charles Morris for reading and commenting upon

some preparatory studies; needless to say none of them is responsible for any of the errors that may be present in it. I am indebted to President J. Critchfield of Rollins College for released time to write the last four chapters. And, finally, I owe a special debt of gratitude to my wife, Joan, for her endless patience and many sacrifices during the sixteen or so years in which I have been preoccupied with the ideas discussed in the book. She is, understandably, more than a little relieved that it is finished.

B.B.W.

INTRODUCTION

Almost all of the work that has been done in linguistic philosophy during this century has been accomplished by employing the method of *piecemeal analysis*, by which I mean the critical examination of the meanings or uses of individual words, phrases or sentences without reference to a general theory of natural language or, at the most, with reference to only a sketchy, largely unformulated, theory. Much of G. E. Moore's work, for example, consisted of the piecemeal analysis of meanings, and L. Wittgenstein's later philosophy consisted largely of piecemeal analysis of the uses of words, phrases, and sentences. Wittgenstein seems to have adopted the piecemeal approach because he was concerned with the dissolution of particular 'puzzles' which, he believed, could be done by examining the uses of philosophically troublesome locutions; but he seems also to have adopted an anti-systematic attitude to natural language in reaction from his system-oriented view in the *Tractatus*.[1] In the case of J. L. Austin, to take one more example, a qualification is required. Although much of his published work consists of piecemeal analyses, his last work, which was posthumously published in *How to Do Things with Words*, shows that he was moving towards a more integral, systematic view of ordinary language.[2]

In this book my approach is *holistic*. That is, I believe that ordinary language is an organic 'whole' and that neither the meanings nor the uses of words, phrases or sentences can be understood properly without examining them in the context of the overall organization of language. This implies that analysis must be supplemented by synthesis, which requires the presentation of comprehensive models of

natural language and their testing against the data of language behavior. The justification for this holistic approach is that philosophical views which are based on the piecemeal analysis of language run the very great risk of committing either the Semantic or the Pragmatic fallacy.

Although most linguistic philosophers have employed some form of piecemeal analysis as their method they have differed from each other more widely in their aims. To take the same examples as before, Moore held that we can know the truth of many propositions of common sense with certainty, e.g., that material objects exist, but that what these propositions *mean* is open to grave doubt. His aim was thus to clarify the certainties of common sense by analyzing the meanings of the words, phrases and sentences that are used to express them. Wittgenstein's aim in analyzing the uses of words was to cure himself and others of the bewilderment that is produced by philosophical reflection on language, not by the acquisition of knowledge, linguistic or otherwise, but, rather, by the achievement of a 'clear view' of what one is doing in speaking – in other words, by a direct insight into the workings of language. As in the *Tractatus*, he held that these workings can be shown but not described. This is why he repeatedly stated that he had 'nothing to teach', and that, when anyone is cured of his philosophical puzzlement, he knows no more than he did before he was puzzled. For Wittgenstein, Moore's common-sense certainties were merely pieces of metaphysical nonsense; the proposition that material objects exist was for him no more commonsensical than Berkeley's proposition that material objects do not exist. Austin's aim, unlike Wittgenstein's, was not therapeutic; consequently, he did not confine his analysis, as Wittgenstein tended to do, to philosophically troublesome words. Rather, he conceived his task to be the careful elucidation of the forms and concepts of ordinary language irrespective of their philosophical 'importance', and he claimed that such elucidation can lead to definite, communicable results.

My aim in this book is neither to propound commonsensical certainties, nor to cure philosophical bewilderment, nor to elucidate ordinary language for the sake of elucidation. It is, rather, to make explicit the logic that is implicit in ordinary language, and from this logic to infer the nature and functions of the faculty that is responsible for it. The first part of this aim is something that Moore,

Wittgenstein, and Austin were very much concerned with, but the second part is not, and they would probably have rejected it. What some of the grounds for their rejection might have been we can conjecture from the following passage which I quote from W. J. Warnock's article on "Reason" in the *Encyclopaedia of Philosophy*:

> ...the apparently innocent question "What can reason do?" is not a neutral question on which otherwise dissentient philosophers may expect to be in agreement. On the contrary, it is very likely that their disagreement consists precisely in their answers to this question. It may further be felt, with justification, that if this innocent-looking question unavoidably raises major philosophical issues concerning the logical and epistemological analysis and clarification of propositions, it would be advantageous to raise these questions directly and overtly rather than as an only half-acknowledged corollary of a discussion that is ostensibly concerned with a faculty of the mind. There are very few modern philosophers who would naturally cast their discussions in this latter idiom.[3]

In other words, the study of common-sense reason is not to be recommended on methodological grounds because, whilst it would raise many of the philosophical questions that are now studied in the various branches of philosophy, it would do so in a covert and indirect fashion. This fact, and the fact that there is widespread disagreement among philosophers on the correct answers to these questions strongly suggests, Warnock seems to be saying, that the study of common-sense reason as a faculty is premature.

I trust that there is nothing covert in my treatment of the philosophical problems which arise in the following attempt to understand common-sense reason. What is direct and what indirect depends on the point of view. Warnock writes from the standpoint of piecemeal analysis and so for him fruitful discussion of the faculty of reason must await the accumulation of piecemeal analyses. From the holistic standpoint a mere accumulation of piecemeal analyses, many of which are almost certain to be incorrect because they have been made out of context of the overall organization of language, will never produce a composite picture of reason; at some point a synthesis must be made. In the following pages I provide such a synthesis and it leads me to the conclusion that common-sense reason is a single, complex ability that is modified in relatively superficial ways to cope with its many uses. The piecemeal analyst, on the other hand, is forced by his method to assume that common-sense reason consists of nothing more than a collection of loosely related abilities that are deployed more or less independently of each other. This

view is accurately reflected in Wittgenstein's assumption that ordinary language is merely a collection of varied, and changing, 'uses' or 'games'.

By using the methods described earlier to achieve the aim we have just discussed I have provided, in the following pages, a theory of ordinary language followed by a theory of common-sense reason and these, in turn, have suggested to me a number of practical applications, some of which are discussed in the last chapter. It may surprise the reader that I should claim any practical relevance for this book, since linguistic philosophy is not noted for being practical. Moore's and Austin's philosophies, for example, were almost entirely academic and, some would add, scholastic. Wittgenstein's earlier philosophy had a practical aim, as we have recently learned from A. Janik and S. Toulmin's book *Wittgenstein's Vienna*, but this aim was more relevant to the peculiar conditions obtaining in the Austro-Hungarian Empire than it is to the conditions obtaining in the world today, which in part explains why it was either not understood or ignored when the philosophy was assimilated by the English-speaking world; and though his later philosophy also had a practical aim, since it was a form of therapy, it applies only to those few people who are fortunate, or unfortunate, enough to be philosophically puzzled.[4]

The practical relevance of this book is derived from the drastic effects on human life which the uses of reason in science and technology are having at the present time and will probably continue to have, to a greater extent, in the future. It is common knowledge that the world has acute problems of population growth, potentially obliterative weapons, dwindling natural resources, and environmental deterioration. Moreover, it is obvious that these threats to the future of mankind are due to misuses of science and technology: the population problem to the fact that medical knowledge has been applied to the control of death to a greater extent than to the control of birth; the obliterative weapons to the exploitation of science and technology for nationalist and ideological purposes; the dwindling natural resources to the unthinking rape of nature for material gain; and environmental deterioration to unplanned economic growth. Some futurologists, such as R. L. Heilbroner, are pessimistic about mankind's chances of solving these problems before they become overwhelming.[5]

The seriousness of this situation has not altogether escaped the notice of philosophers. M. W. Wartofsky, in a recent article, states his reaction to it in the following words:

> We face a paradox: scientific rationality, which has liberated man from ignorance, from the whims and oppression of a blind nature, and which has subordinated the earth to man, has become the potential instrument of the destruction of the human species.[6]

And he is led to ask the following questions:

> Is rationality adequate to the tasks of human survival: Or is rationality itself a danger to the species? Can it be that the rejection of science may be justified on the grounds that this very rationality is no longer a viable instrument of human survival?[7]

He answers these questions by saying that scientific rationality, which has, until recently, been a liberating force, is now becoming dysfunctional and repressive. Nevertheless, he says, only science can do anything about this situation because it cannot be corrected without reliable knowledge of how science and technology are being used. Scientists must therefore provide the means for correcting the dysfunctionality of science by developing a second-order science – a science of science – which studies the practice and uses of science.

In making this recommendation Wartofsky implies that rationality *is* adequate to the tasks of human survival and, since he explicitly equates rationality with science in the article, he implies that *science* is adequate to the tasks of human survival. Let us examine these three propositions briefly, beginning with the equating of rationality to science.

This equation implies that morality, the law, parliamentary procedure and a number of other non-scientific areas of culture are non-rational. The implication can be stated rather more precisely if we employ the traditional distinction between theoretical and practical reason or, rather, between the theoretical and practical uses of reason. Roughly, the theoretical use of reason is its use to determine *what to believe*, whereas the practical use of reason is its use to determine *what to do*; theoretical reason aims at the discovery of *true beliefs* (or true propositions, true statements, etc.); practical reason at the discovery of *right actions*. In these terms, science, which seeks explanations of phenomena, lies within the jurisdiction of theoretical reason, whilst the law, morality, economics, politics, social organization, and government, which are concerned primarily

with actions, lie within the jurisdiction of practical reason. Wartofsky's equation thus has the effect of equating reason with a part of theoretical reason and so of nullifying practical reason.

This *scientistic conception of reason* is shared by many philosophers and, I believe, by a sizable proportion of the general public. It had originated in part from the fact that throughout the history of philosophy most philosophers have taken theoretical reason to be more important than practical reason, and in part from the tremendous growth in the power and prestige of science since the seventeenth century. However, many philosophers hold an even more restrictive view which may be called the *formal conception of reason*. This assumes that the essence of reason is to be found in the formal, deductive reasonings that are most clearly seen in formal logic and mathematics; it equates reason with the ability to perceive and use formal relations. How widespread this view is can be judged from the fact that, as recently as 1962, Brand Blanshard was able to say in his book *Reason and Analysis* that in the most fundamental of its philosophical senses reason is the ability to grasp necessary relations, an ability which is exercised in the deductions that are performed by logicians and mathematicians.[8] Many writers, he went on to say, would add that it includes the ability to grasp necessary truths such as tautologies and, perhaps, analytic truths of a wider kind. Still other writers would want to include the ability to draw inferences from the past to the future – that is, would want to include an inductive ability. In its widest philosophical sense, he concluded, quoting from Thomas Whitaker, reason is "the relational element in intelligence, in distinction from the element of content, sensational or emotional".

Part of my aim in the following chapters is to show that both the scientistic and formal conceptions of reason are much too restricted, and that an adequate conception of reason must provide a place for practical reason. Thus, in Section 6.1, I shall argue that the formal conception of reason commits the Semantic Fallacy, and that it ultimately arises from a lack of understanding of the overall organization of ordinary language. And in Chapter V I shall provide a detailed discussion of one use of practical reason – namely, its use in morality.

The second implication of Wartofsky's recommendation, it will be recalled, was that science will be adequate for human survival, since

its present inadequacy can be corrected by the development of a second-order science which studies the practice and uses of science. Such a development will no doubt be necessary for ensuring man's survival, but it will not be sufficient because the second-order knowledge which it produces will be just as liable to misuse as our present first-order knowledge, and the consequences of this misuse may well be more dangerous. The problem is, of course, that the uses of scientific knowledge – first-order and second-order – are controlled ultimately by human aims, purposes, desires, loves, hates, and many other factors which lie outside the scope of science. However, these factors do not, in principle at least, lie outside the scope of practical reason, which suggests that if the problem of human survival has a rational solution this solution will be provided by practical reason with the help of science and not by science alone.

This brings us to the third of Wartofsky's propositions – namely, that rationality is adequate to human survival. We have seen that this proposition is false if reason is equated with scientific reason: we must now see if it is true when reason is taken to include practical reason. Unhappily, the misuses of science that are threatening the survival of mankind point to the fact that whereas theoretical reason, in the shape of mathematics and science, has been developed over the twenty-six or so centuries of Western civilization into a truly sophisticated, formidable instrument, practical reason has scarcely been developed at all. In morality, for example, little has been done to develop the rationality that is implicit in common sense (cf. Chapter V). In economics, the world is now dominated by two systems, neither of which is founded on practical reason, since in neither system are economic actions and policies regulated by some form of rational due process which would ensure that they are *right* rather than merely *expedient*. And even parliamentary democracy is only in part founded on practical reason because, whilst it provides a rough and ready way of discovering and giving effect to the will of the people, it has very inadequate procedures for enabling the people to discover and will *right* actions and policies (cf. Section 8.3). Consequently, whilst theoretical reason has changed human life in dramatic ways, practical reason has not been able to cope with these changes and so has had to abandon more and more areas of public life to the control of non-rational and irrational forces. It is difficult to resist the conclusion that reason has developed in Western civiliza-

tion *in a lop-sided way*, with the result that it has given man increasing powers over nature and over his own destiny without giving him the personal or institutional means to use these powers wisely. This conclusion suggests the picture of a small child who has somehow acquired a very sharp knife, but lacks the sense to use it without cutting, perhaps even killing, himself.

This diagnosis of man's situation suggests a possible corrective – namely, a considerable intensification of research into practical reason with a view to understanding it more thoroughly, developing it to a higher level of sophistication, and thereafter applying it extensively to the areas of culture that come within its jurisdiction. My practical aim in this book is to provide some evidence for thinking that this program is feasible, by showing that if practical reason is regarded in the right light it should prove to be just as susceptible to clear formulation and technical development as theoretical reason. I hope by doing this to enlist interest in the program because it will take the combined efforts of many scholars over the next hundred years to correct the lop-sided development of reason to which I referred above and so provide a permanent solution of man's predicament.

I have said enough, I hope, to suggest the practical relevance of this book: it is necessary only to add that very little of the book is directly concerned with practical matters, since what is needed at this stage of execution of the program is an adequate *theory* of practical reason. In view of this I have said very little even about the distinction between theoretical and practical reason, because this distinction has more practical than theoretical value; from a theoretical standpoint it gives the false impression that the two terms stand for radically different *kinds* of reason, whereas in reality they stand for superficially distinct ways of employing a single, complex faculty. Instead, I employ a distinction between common-sense reason on the one hand and the more or less specialized developments of common-sense reason in mathematics, the sciences, the law, morality, politics, government, and economics on the other. Stated metaphorically, I take reason to be a tree having common-sense reason for its roots and trunk and the various developments of common-sense reason that have grown out of and away from it to serve a variety of purposes for its branches.

Common-sense reason is thus the basis of all reason. It is the non-technical, non-specialized form of reason that is employed in every-

day life for both theoretical and practical purposes and is implicit in the structure and uses of ordinary language. A rough, first approximation of what I mean by 'common-sense reason' is provided by the following typical dictionary entries for the word 'reason':[9]

1. an explanation or justification of an act, idea, etc.;
2. a cause; motive;
3. the ability to think, form judgements, draw conclusions, etc.;
4. sound thought or judgement; good sense;
5. normal mental powers; a sound mind; sanity.

Superficially, these entries appear to be unrelated, but this impression is easily corrected. The first two entries apply to such uses of the word 'reason' as "What is your reason for doing that?". Giving reasons is merely one way of exercising the faculty of reason, and so these entries must be treated as being subsidiary to the remaining entries. Entry 3 is obviously a special case of Entry 5. The former indicates that 'reason' is employed to designate a variety of powers of thought which, if we take the liberty of interpreting the 'etc.' include the power to deliberate, evaluate, criticize, choose, and decide. The latter, although it does not explicitly say so, includes all of these powers plus such additional powers as the ability to distinguish right from wrong, to know whether one's feelings are justified, and to perceive objects in a non-delusory way. Entry 4 indicates that the word 'reason' is also applied, abstractly, to what results from the exercise of the powers referred to in Entries 3 and 5; it is thus subsidiary to these latter entries. We thus see that the *common-sense conception of reason*, which is what these entries describe, is the conception of a single, complex faculty.

Since common-sense reason underlies all of the forms of reason I have naturally devoted most of the book to it, but there are sections, here and there, that are devoted to explaining the legal, parliamentary, mathematical, scientific, and other developed uses of reason; the reader can easily pick most of these out from the list of contents. I am aware that these are rather brief, but I have included enough, I believe, to explain how the specialized uses of reason relate to common-sense reason; given the fundamental principles that are involved the details are not difficult to fill in. I shall begin in the first chapter with an intuitive analysis of common-sense deliberation, both in order to show that there are very important forms of reasoning that are not covered by formal logic and to show that for a more

penetrating analysis of this and other forms of common-sense reasoning a comprehensive theory of natural language is required. This theory then follows in the next two chapters.

NOTES

[1] L. Wittgenstein, *Tractatus Logico-Philosophicus*, trans. C. K. Ogden (London: Kegan Paul, 1922).
[2] Published by the Clarendon Press, Oxford, 1962.
[3] G. J. Warnock, "Reason", *The Encyclopaedia of Philosophy*, ed. Paul Edwards (New York: Macmillan Publ. Co., 1967), Vol. 7, p. 85.
[4] Allan Janik and Stephen Toulmin, *Wittgenstein's Vienna* (New York: Simon and Schuster, 1973).
[5] R. L. Heilbroner, *An Inquiry into the Human Prospect* (New York: W. W. Norton, 1974).
[6] M. W. Wartofsky, "Is Science Rational?", *Science, Technology and Freedom*, ed. W. H. Truitt and T. W. G. Solomons (Boston: Houghton Mifflin, 1974), p. 202.
[7] *Ibid.*, pp. 202-03.
[8] Brand Blanshard, *Reason and Analysis* (London: George Allen and Unwin, 1962), p. 25.
[9] All references to 'the dictionary' in this book are to *Webster's New World Dictionary*, College Edition (New York: The World Publishing Company, 1970).

CHAPTER I

DELIBERATION

The kind of reasoning that has been cultivated most intensively by formal logicians and mathematicians is the rigorous deduction of conclusions from premises. This is exemplified most clearly in mathematical proofs, in which theorems are deduced from prior theorems, and these are deduced, in turn, from a set of axioms. This sort of reasoning occurs, in a less rigorous form, in ordinary discourse, but not nearly as frequently as textbooks of logic would lead us to believe. Moreover, when it does occur it is, more often than not, merely a part of the much more important and basic form of common-sense reasoning called 'deliberation'. I propose, in this chapter, to review three influential attempts – by Hobbes, Aristotle, and Thomas Bayes – to characterize deliberation, and then present what I believe to be a more adequate characterization. This will provide us with our first glimpse of some of the underlying features of common-sense reason.

1.1 HOBBES AND ARISTOTLE

Hobbes' well-known account of deliberation is given in his *Leviathan*.[1] He begins by defining the term 'deliberation' as follows:

> When in the mind of man appetites and aversions, hopes and fears concerning one and the same thing arise alternately, and divers good and evil consequences of the doing or omitting the thing propounded come successively into our thoughts, so that sometimes we have an appetite to it, sometimes an aversion from it, sometimes hope to be able to do it, sometimes despair or fear to at-

tempt it – the whole sum of desires, aversions, hopes and fears continued till the thing be done or thought impossible is that we call DELIBERATION.

He follows this with the observation that, according to his definition, "beasts also deliberate" since "this alternate succession of appetites, aversions, hopes and fears is no less in other living creatures than in man". And he concludes by defining the Will as "the last appetite or aversion immediately adhering to the action or to the omission thereof". The whole description is little over a page in length, and I get the impression that Hobbes was interested, not so much in deliberation itself, as in showing that he could explain it in terms of his materialist philosophy.

Before I criticise this account of deliberation I must explain the sense in which what I shall say is to be regarded as a 'criticism'. I am concerned merely to determine how well Hobbes describes the process of reasoning to which ordinary language attaches the label 'deliberation'. I am not concerned to determine whether his description is an accurate account of how people – let alone animals – actually think, and hence, I am not addressing myself to the question to what extent people are able to employ the process of deliberation, as it is ordinarily understood. This is an important question but it is a psychological one which is not relevant to my present purpose.

Hobbes describes a situation in which someone is 'making up his mind' either to do action A or not to do it. He assumes that whether or not this person does A is determined by an alternating succession of internal forces – desires, aversions, hopes and fears – some urging him to do A and others holding him back. In the end, one of the forces prevails and he accordingly acts or does not act depending on whether this force is excitatory or inhibitory. The whole process he calls 'deliberation', and the prevailing force the 'will'.

This description bears only a crude resemblance to what we ordinarily call 'deliberation'. The verb 'to deliberate' means, etymologically, 'to weigh well', so that deliberation is the *procedure* of weighing the pros and cons, and not a causal, temporal process as Hobbes takes it to be. An ideally rational person, if faced with Hobbes' problem of deciding whether to do A or refrain from doing A, would first assemble all the reasons for or against doing A, assign weights to them, and finally determine whether the resultant weight of all the reasons for doing A is greater than, equal to, or less than the resultant weight of all the reasons against doing A. Whether he

would do A or refrain from doing A would be determined by the outcome of this last operation. The faculty which enables him to make his behavior conform to this outcome rather than to the outcome of Hobbes' alternating succession of forces is what is ordinarily called the 'will'.

Does this mean that the desires, aversions, fears, and hopes to which Hobbes refers are not relevant to deliberation? Yes and no: yes, because these non-rational motives must be excluded from the deliberation in order to prevent them from subverting it; no, because they have a rational right to be taken into consideration, which the deliberator can do by employing weighted rational surrogates for them, as we shall see later.

From the foregoing remarks it is clear that Hobbes, whether he realized it or not, described a *non-rational* or *pre-rational* way of making up one's mind. Motives for him were merely natural forces, and deliberation was a process in which these forces are resolved somewhat after the manner in which forces are resolved in mechanics. Rational deliberation, on the other hand, involves the replacement of these natural forces by rational forces or 'weights' which can be supplemented by weights which 'ought' to be included, even though there is no corresponding non-rational motive. (The doing of A might, for example, be highly desirable for some reason which evokes no desire in the deliberator at all – this reason must be given its proper weight in his deliberation.) I shall return to these ideas in order to discuss them further later in this chapter.

Aristotle describes deliberation in connection with his account of ethical choice in the *Nicomachean Ethics*. An action is voluntary, he says, when (1) its origin is in the agent, and (2) he knows the circumstances in which the action is done.[2] Choice is not coextensive with voluntary action; only those actions are choices whose objects have been decided upon by deliberation.[3] He then goes on to give his account of deliberation. In order to present this as briefly as possible, I quote from a summary of it given by his translator, Sir W. D. Ross:[4]

> Now, deliberation is about what is in our power and can be done. It is about means and not ends; it presupposes a determinate end and considers how this can be attained. And, having worked back from end to means, it goes further back to the means and continues till it has reached a means that can be adopted here and now. ... As it is limited at its beginning by something other than itself, i.e. desire of a determinate object, it is limited at its other end by something

other than itself, viz. perception of the actual circumstances. The whole process may be formulated thus:

Desire	:	I desire A
Deliberation	:	B is the means to A
		C is the means to B
		...
		...
		N is the means to M
Perception	:	N is something I can do here and now
Choice	:	I choose N
Act	:	I do N

Thus, choice is 'deliberate desire of things in our power'[5] or, as Aristotle puts it elsewhere, 'it is either desireful reason or reasonable desire, and that sort of origin of action is man'.[6]

Hence, for Aristotle to deliberate means to search for a chain of efficient causes and effects such that the last effect secures the satisfaction of a preconceived desire and the first cause is an action that is in the deliberator's power to perform. There is no mention of whether what is desired is desirable, i.e., of whether the desire ought to be satisfied, of whether the means B-M are good or bad either in themselves or by virtue of their side-effects, or of whether the action N is morally or in other ways permissible. Apparently, desire needs no justification or is self-justifying, and the means are justified by the end which they bring about. Deliberation is merely a technique for forming efficient connections between actions and desires, a method for discovering actions which will ensure the attainment of preconceived ends.

Let us examine the steps of Ross' schema from the standpoint of common-sense reason. For Aristotle, it is clearly sufficient that I desire A for the obtaining of A to be made an end of action. This ignores the prior question of whether one is *entitled* to make the obtaining of A an end of action, which must be settled by determining whether or not A is *desirable*, i.e., worthy of being desired. Thus, goals must be evaluated (and, incidentally, weighed against other possible, competing goals) before they are adopted. At the end of Ross' summary Aristotle is quoted as defining choice in terms of 'desireful reason' or 'reasonable desire'. The first expression merely means 'reasoning that is motivated by the aim of satisfying a desire', and the second 'desire that can be satisfied by means-end reasoning'. Neither of these expressions gives any indication that Aristotle was

aware of the fact desires are non-rational motives whereas desirabilities are rational.

The second step in Ross' schema is labelled 'deliberation'. This accurately reflects the fact that Aristotle identified deliberation with means-end reasoning. Two comments must be made about this. First, means-end reasoning is undoubtedly a part of the complete deliberative procedure, but only a part, and not the most important part. In choosing a goal, as we have seen, alternative possible goals must be evaluated and the best selected. Hence, deliberation may involve evaluation, which is a form of common-sense reasoning that is not at all the same as means-end reasoning. Again, in deciding whether or not to perform an action, which was Hobbes' problem, we have to take into account the consequences of performing and not performing the action. This involves cause-effect reasoning but it also involves the evaluation of the alternatives. Secondly, some or all of the means B, C, ..., M might be undesirable even if none of them actually causes aversion, so that the deliberator must search for other means of obtaining A that are not desirable, or give up his desire for A.

Step five in Ross' schema also calls for comment. Even if A is desirable and none of the means B, C, ..., M is undesirable, we shall still not have an adequate justification for doing N; N could, for example, be the commission of a felony. Ross' schema would provide us, in this case, with only one reason for doing N: *all* of the relevant pros and cons must be taken into account, and these pros and cons must be weighed in the manner described earlier.

In view of the above remarks, it is fair to say that Aristotle describes a *partially rational* way of deciding what to do: his description subordinates reason to desire and so implicitly denies that it is an autonomous faculty. The criticisms I have made of this description from the standpoint of common sense suggest, on the contrary, that reason takes desires into account without being subordinated to them; there is nothing in the procedure of deciding what to do which implies that reason is controlled by anything outside itself.

1.2 BAYESIAN DELIBERATION

Thomas Bayes, the eighteenth-century English mathematician, proposed a mathematical model of deliberation which was elaborated

by F. P. Ramsey in the 1920's and further developed by R. C. Jeffreys in his *Logic of Decision* ten years ago.[7] In this model, the agent has a number of actions (in the simplest case finite) which he could perform. Each action results in a number of possible consequences that are determined by contingencies which he can neither predict exactly nor control. The consequences are assigned numbers to represent their desirabilities, and the contingencies, which are assumed to be mutually exclusive and jointly exhaustive, are assigned probabilities of occurrence. The agent deliberates on which action to perform by computing the *expected desirabilities* for each action, and then performing that action which has the maximum expected desirability.

The following example will explain the procedure. Suppose I am trying to make up my mind whether to go to a soccer match or to see it on my television set at home. Suppose further that the only relevant consideration is the chance of rain, which the weather station puts at 25%. There are, then, four possible outcomes:

1) Go to soccer match : it rains
2) Go to soccer match : it does not rain
3) Stay home : it rains
4) Stay home : it does not rain

Let us assume now that we can assign numbers to these outcomes to represent their desirabilities, viz. (1) −2, (2) +2, (3) 0, (4) +1, where zero represents indifference, positive integers represent degrees of desirability, and negative integers degrees of undesirability. Since the probabilities of rain and no-rain are 1/4 and 3/4 respectively, the expected desirabilities for going to the match and for staying at home are calculated as follows:

Going to the soccer match
$(-2 \times 1/4) + (+2 \times 3/4) = 1$
Staying at home
$(0 \times 1/4) + (1 \times 3/4) = 3/4$

The best course of action is thus to go to the soccer match.

In this example the assignment of the desirability measures was somewhat arbitrary. Clearly, the agent is not in a position to say that outcome (1) is *exactly* as undesirable as outcome (2) is desirable, or that outcome (4) is *exactly* half as desirable as outcome (2). One of

Ramsey's contributions to Bayesian deliberation was to propose a way of reducing this arbitrariness. I will adapt his method to the above example.

We first assign the desirabilities 0 and 1 to the least and most desirable outcomes respectively, i.e., to (1) and (2); these numbers are chosen in place of the former −2 and +2 for methodological reasons, but their assignment is still basically arbitrary. We then determine the desirabilities of (3) and (4) relative to the desirability of (2) more accurately than in the original method by a method of gambles. Thus, for outcome (3), we search for a gamble g such that the agent would prefer neither of the following *hypothetical outcomes* to the other:

Go to soccer match : it does not rain provided he wins gamble g
Stay at home : it rains

Let us suppose that we discover, after some trial and error, that the gamble which makes the agent indifferent to the two outcomes is the toss of a coin. We can then calculate the desirability of outcome (3) – say d – by equating the expected desirabilities of the hypothetical outcomes, viz.:

$$1 \times 1/2 = d \times 1$$

which makes $d = 1/2$.

Similarly, for outcome (4), we employ the following pair of hypothetical outcomes:

Go to soccer match : it does not rain provided he wins gamble g
Stay at home : it does not rain

Let us suppose that the gamble g which would make the agent indifferent to these hypothetical outcomes is one of picking a spade, heart or diamond from a pack of cards. Equating the expected desirabilities of the hypothetical outcomes, as before, we obtain:

$$1 \times 3/4 = d \times 1$$

and so d, which is now the desirability of outcome (4), is 3/4.

If the revised desirabilities 0, 1, 1/2, and 3/4 are substituted for the previous desirabilities −2, +2, 0, and +1 respectively, the

expected desirabilities for going to the soccer match and for staying at home can be found, as before, as follows:

Going to the soccer match
$(0 \times 1/4) + (1 \times 3/4) = 3/4$
Staying at home
$(1/2 \times 1/4) + (3/4 \times 3/4) = 11/16$

The best course of action is the same as before, but it has been determined in a less arbitrary manner.

Bayesian deliberation takes account of a feature of common-sense deliberation which neither Hobbes nor Aristotle took into account, namely, that the consequences of actions are subject to various contingencies having various degrees of probability. And it even goes beyond common-sense deliberation in one respect by attempting to reduce deliberation to arithmetical calculation. These are moves in the right direction, but Bayes' approach also has its shortcomings.

The first of these is that it evaluates actions only in terms of their consequences. In common-sense deliberation the nature of an action may be relevant to its evaluation, and so may its relations to prior actions performed by the agent. Some actions are morally or legally wrong irrespective of their consequences, e.g., murder; others, such as the fulfilling of contracts, keeping of promises, and the performance of duties, which are obligations that are assumed by the agent through the performance of prior actions, must be done irrespective of the consequences, except when these consequences include the doing of great harm to someone.

Secondly, Bayesian deliberation takes into account only one aspect of the consequences of actions, namely, their 'desirability' for the agent. As I have suggested in the preceding paragraph, the effects of the agent's actions on other people's interests must be taken into account, irrespective of whether these effects seem to him to 'desirable' or 'undesirable'. So must the certainty, probability or even possibility that some of these effects may conflict with laws or moral principles.

Thirdly, whereas 'desirability' is employed in ordinary language in an objective, rational sense, the example we have examined employs it ambiguously. In its ordinary sense the word means 'worthy of being desired', as I stated earlier, and this worthiness has to be determined on the basis of objective criteria. In the technical sense given

to it by Ramsey and Jeffreys the word could mean 'desired' (subjective) or 'desirable' (objective), or a mixture of the two. This is because the technical quality of 'desirability' is inferred from the agent's behavior without determining whether this behavior is based on purely rational considerations, is merely an expression of the non-rational motives of desire, or is a confused mixture of the two. I am not criticizing Ramsey and Jeffreys for their ambiguous use of the term 'desirability'. This use enables them to assign a numerical measure to something that approximates 'desirability' in its ordinary sense if not to desirability itself; this is an important step in the right direction.

1.3 COMMON-SENSE DELIBERATION

In everyday life, to deliberate is, as the dictionary puts it "to consider reasons for and against a thing in order to make up one's mind". The 'thing' here may be an action, a belief, an attitude, a feeling or, in fact, anything that can be voluntarily determined. I shall confine the discussion in this section to deliberations in which the problem is to decide what is the right act to do in a given situation. My procedure will be to outline a typical deliberation first, and then to fill in some of the details by discussing its stages in sequence.

At any given moment, a rational agent has an indefinitely large number of actions which he *could* perform, but there are usually only a relatively small number of these actions that are *rationally relevant*; hence, the first thing he has to do is to distinguish these actions from the rationally irrelevant actions. He is able to do this because he 'knows' by common sense that an action is rationally relevant if and only if it is of one or more of a finite, and not very large, number of *kinds* of actions, some of which are as follows: keeping a promise; breaking a promise; performing a duty; neglecting a duty; fulfilling an obligation; failing to fulfill an obligation; doing something in one's self-interest; doing something against one's self-interest; doing something in someone else's interest; doing something against someone else's interest; doing something that would bring one pleasure; doing something that would bring one pain; doing something that would give someone else pleasure; doing something that would give someone else pain; and so forth. I have listed the

preceding kinds of actions in pairs to bring out the point that, if an action is of the first kind in a pair, this is a reason *for* doing the action, whereas, if it is one of the second kind, this is a reason *against* doing it. Thus, the process of determining the rationally relevant actions is a process of determining which actions have reasons for or against them.

Thus, our agent not only knows the rationally relevant actions in his situation, he also knows the reasons for and against these actions – I am ignoring mistakes and oversights such as failure to infer a reason from his knowledge of the situation. His next step is to follow a *decision procedure* which will enable him to find the *right* action to perform – if there is a unique action of this kind in the situation – on the basis of the reasons for and against the rationally relevant actions open to him.

This procedure is based on the principle that kinds of actions have an *order of precedence* not unlike the order of precedence accorded to motions in parliamentary procedure. Given two actions of differing kinds, they may or may not be assigned to differing precedence ranks. If action A of kind K_1 is of a higher precedence rank than action B of kind K_2, then the fact that action A is of kind K_1 provides a reason for or against doing A which 'overrides' the corresponding reason for or against doing B. Moreover, all actions belonging to the same precedence rank are given 'weights' that are proportional to the degrees to which these actions have the defining properties of their kinds. For example, if action D would be strongly in my self-interest, but action E would be only slightly in my self-interest, then the weights assigned to D and E would have to be such as to reflect the degrees of self-interest involved. Obviously, this is a matter for judgement, and can only be approximate.

The decision procedure is as follows (or is equivalent to what follows):

1) Let the class of all rationally relevant actions which the deliberator could do be C. If C is null, he is free to do nothing.

2) If C is not null, he forms the sub-class C_1 of C consisting of all those rationally relevant actions that have at least one pro or con of the highest precedence rank.

3) For each action in C_1 he then weighs the pros and cons of the highest precedence rank against each other:

a) If there is an action in C_1 for which the pros outweigh the cons

by a greater amount than for any other action in C_1, then this is the right action for him to do.

b) If, on the other hand, there are two or more actions in C_1 whose pros outweigh their cons by equal amounts which are, however, more than the corresponding amounts for all other actions in C_1, then the weights of the pros and cons of the next lower precedence rank must be taken into account to decide between them. However, if a decision still cannot be made, lower and lower ranking pros and cons must be taken into account. If, after all of the pros and cons of the actions have been taken into account a decision has not been made, then one of the actions must be performed – it is a matter of rational indifference which one it is.

4) The deliberator now forms the class C_2 consisting of all those rationally relevant actions

(i) whose highest ranking cons do not together outweigh their highest ranking pros; and,

(ii) which contain at least one pro or con of the next-to-highest precedence rank.

5) He now carries out the procedure described in paragraph (3), but this time with respect to C_2, and for pros and cons of the next-to-highest precedence rank.

6) By repeating steps (4) and (5) for the pros and cons of successively lower and lower precedence ranks, the deliberator must either find the right action to do, discover that he has an option between two or more rationally equivalent actions, or see that he is not obliged to do anything.

Having decided in this way what he should do, if anything, the deliberator then *wills* this action. If he actually performs the action, and if this performance is caused by his will which, in turn, is determined by the outcome of the deliberation, then his behavior is rational, rather than non-rational or irrational.

I will now explain the key notions in this decision procedure, starting with the notion of reasons for and against an action. A fairly comprehensive list of these is provided in Table I, which classifies them on the basis of their relation to the action. The first group, on the left of the table, I call *antecedent reasons* because they derive their relevance to the action for which they are reasons from some prior action of the agent. *Obligations* arising from promises, and *legal contracts*, fall into this category, and so do *duties* in so far as they

REASONS
(for or against an action)

Antecedent
(Dependent on antecedents of act)

1. *Obligations*
   a) Legal Contracts
   b) Promises
2. *Duties*
   a) Parental
   b) Professional
   c) Civic
   d) ... etc.
3. *Imperatives*
   a) Commands
   b) Requests
   c) Instructions
   d) ... etc.

Proper
(Dependent on character of act)

1. *Moral Principles*
2. *Civil Laws*
3. *Religious Laws*
4. *Social Rules*
   a) Customs
   b) Traditions
   c) Conventions
   d) Etiquette
   e) Manners
   f) Good Taste
   g) ... etc.

Consequential
(Dependent on consequences of act)

1. *Self-Interest*
   a) *Long-range*
      Health
      Career
      Professional Group
      Class
      Country
      ... etc.
   b) *Short-range*
      Pleasure and Pain
      Desire and Aversion
2. *Others' Interests*
   a) *Long-range*
      ... as above
   b) *Short-range*
      ... as above

Table I. *Reasons for or against actions.*

were assumed by the agent at some time prior to the action in question, e.g., by taking a job, getting married, becoming a father (or mother), and so forth. *Commands* and *instructions* may also be included here in so far as the agent has, by some past action, such as signing on to work for a firm, or going to college, put himself under some form of authority. The main thing which distinguishes antecedent reasons from the other classes of reasons is that they cannot be used by everybody, but only by those who, by virtue of their past actions, have made their present actions subject to restraints.

What I have called – for want of a better word – *proper reasons* derive their relevance to the action for which they are reasons from their relation to the nature of the action itself, i.e., from its character. Examples of such reasons are that the action is prohibited, or required, by morality, law, or good taste. Stealing, for example, is prohibited by morality, by the law, and by religion; going to Mass is a religious requirement for Roman Catholics; lying is morally and religiously prohibited, but not legally unless one is testifying in a court of law; eating with one's hands, Tamil-style, is a breach of etiquette in Western countries; and so forth.

The third group of reasons I call *consequential reasons* because their relevance to the action is determined by the nature of its consequences or effects. These reasons can be classified, in two different ways, according to whether they are derived from the effects of the action on:

a) the agent or others; or,

b) short- or long-range interests.

By a 'short-range interest' I mean an interest in obtaining pleasure and avoiding pain, in satisfying rather than frustrating cravings, longings and desires or, more generally, in being able to follow one's natural impulses, urges or feelings.[8] A 'long-range interest', on the other hand, is an interest in obtaining what would, *ceteris paribus*, either directly or indirectly, specifically or on the whole, immediately or in the future, be of benefit to one irrespective of any impulse, urge or feeling; and, of course, in avoiding what would be harmful to one in any of these ways. We have a long-range interest in anything that would be good for our health, advance our career, or benefit our professional group, class, or country.

It is important to note that the reasons for and against actions which I have just outlined are part of 'common-sense knowledge'.

That is, given any ordinary action, the great majority of people would be able to say, in a concrete situation, what are the common-sense reasons for and against the performance of that action in that situation. Moreover, it is also important to note that this knowledge provides the indispensable basis for the ability of the ordinary person to deliberate and, hence, for his ability to justify the outcomes of his deliberations by advancing arguments to support them.

Since the ordinary person is in possession of this common-sense knowledge, and since rationally relevant actions are actions for or against which there exists at least one reason, he is in a position to distinguish rationally relevant from rationally irrelevant actions. This brings us to stage (1) of the decision procedure. If, in a given situation, there are no rationally relevant actions which the agent could perform, then, of course, he has no reason to do anything, and so he will do nothing. Note that this means that he will not even cough, blow his nose, or smoke a pipe because, if he has an urge, impulse, or whatever to do any of these things, this urge or impulse will provide him with a reason for doing it; the satisfaction of such an urge or impulse would be a 'short-range interest', and so would yield a reason with a weight appropriate to this category of reasons. In a fully rational person – and I am concerned only with such a person in what I have just said – reason continuously monitors all non-rational motives; if there is no reason why they should not be satisfied, they are allowed to seek their satisfaction, but if there is, they are inhibited or controlled in some other way. Thus, reason might lead one to cough as little as possible, laugh quietly, blow one's nose carefully, or smoke a pipe only after a meal if, for example, such behavior has been counselled by a doctor.

Stages (2) and (3) of the decision procedure introduce the notions of precedence rank and weight. These concepts are related, as I have already mentioned, to the three factors of *kind*, *degree*, and *probability*. Antecedent and proper reasons may differ in kind and degree but not, usually, in probability, since we ordinarily know with certainty, or can find out, what our duties and obligations are, and what laws and rules apply to our actions; consequential reasons, on the other hand, may also differ in probability because they commonly consist of effects of actions which, because they depend upon contingencies beyond our control, are not certain.

Precedence ranks are related to the kind factor but not to the other two factors. This may be illustrated from legal practice. There