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J. McEVOY

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The Teaching-Learning Relationship: A Thomist Perspective on the 'Standard Thesis'

H. C. McCauley

I

Philosophers throughout the ages have not overlooked the importance of philosophical activity in the field of education. From the pioneering work of Plato, Isocrates and Aristotle there has scarcely been an age in which some philosopher has not made a notable contribution to the development and expansion of educational thought. Not all philosophers have been equally interested in, or concerned with, the problems of education, but neither has there been an equal interest taken by all in the problems of logic, aesthetics or metaphysics, for that matter. Though education has, perhaps, suffered somewhat more than the others in this regard, it is nevertheless the case that, even where explicit treatment of educational problems is lacking, many philosophers have had much to say which is of significance to the educator, e.g. on such topics as knowing, valuing, learning, the nature and destiny of man and so on.¹

In the twentieth century the amount of work being done in the field of educational philosophy has increased more rapidly than ever before. This expansion reflects the general expansion throughout the world of provision for education and interest in education, but it also has a momentum of its own within philosophy and educational theory. It was, after all, in a book published early in this century that John Dewey, a figure who effectively dominated educational philosophy in the early decades of this century, went so far as to define philosophy as the "general theory of education" and constantly urged philosophers to take more note of the educational dimensions of their work.² Further, in more recent decades two philosophies have emerged in fully developed form each of which has something to say on education, and each of which has a large number of adherents. These two philosophies are phenomenological-existential philosophy and logico-linguistic analysis, particularly its ordinary language variant.³ These two philosophies, together with Thomism, Marxism and the Pragmatic-instrumentalist philosophies of Dewey and his followers make up the dominant trends in recent educational thought.⁴

At the present time the educational philosophy associated with one of the two more recent movements – the analytic movement – is growing rapidly in strength. A glance at some of the recent bibliographies of educational philosophy, or at the contents of the education journals, indicates the extent of the analytic philosophy of education.⁵ From fairly modest beginnings in the early nineteen

fifties⁶ the analytic movement in education had, by the middle sixties, become a major rival to Deweyism in the U.S.A.⁷ Further, the general philosophy of analysis had at the same time 'become more or less dominant in British and American philosophy',⁸ providing the educational dimension with an already prepared and receptive environment. Couple this with the decline in the popularity of Dewey in the post-Sputnik era, and the feeling on the part of the analysts themselves that "to educational philosophy – which is relatively non-technical in language and in substance for the most part normative – the methods of informal analysis have proved remarkably congenial"⁹, and it is not difficult to understand the rather rapid rise of analysis in the philosophy of education.

In educational philosophy, according to a leading analyst, the philosopher "... aims explicitly at improving our understanding of education by clarification of our conceptual apparatus. . ."¹⁰ In carrying out this clarification the analysts attempt "to do independent and direct philosophic analyses of the language, the concepts, the structure, and the goals of education."¹¹ An analytic philosophy of education consists, then, of a detailed examination of central concepts in education, either individually or in relation to each other. Among the topics so explored over the past decade or so are: teaching, education, indoctrination, training, conditioning, needs, interests, development, character, punishment, and critical thinking – to mention but a few. The discussions generated by these analyses are very much alive today, and the analysts have succeeded in providing educators with quite a good deal of food for thought.

Among the central concepts most often discussed by the analysts are the related notions of teaching and learning. Given the fact that teaching and learning loom so large in any discussion of educational thought or practice, it is not surprising at all that the analysts have devoted so much energy to explaining and defining these concepts and the link between them. The analysts are clearly aware of the importance of this area of research as is evident from the statement of one of their number on the point: "Ultimately a correct understanding of the connection between teaching and learning is crucial because without it we cannot know how, within the institutions of education, we are to understand the office of the teacher and to what extent teachers can be held accountable for the results of their efforts."¹² Though not all analysts have focused so clearly on the wider context of the teaching-learning link, it has been the subject of a long, and as yet unfinished, discussion among them in recent years.¹³

It is with this dimension of the analytic movement in education that we shall be concerned here, particularly with one central account which has emerged concerning the precise nature of the link between the teacher and the learner. Since an analysis of this point is the key to the whole question of teacher accountability, we shall look in detail at two versions of what is referred to as the 'standard thesis'

in the analytic literature on the topic.¹⁴ In both there is a denial of any logical link of implication between teaching and learning, coupled with an assertion that there is a link and that the link is contingent. In one view, that of B. O. Smith,¹⁵ the account given may be styled causal, whereas in the account of T. F. Green¹⁶ any causal account of the link between teacher and pupil is denied.

We shall argue that, in both cases, the analysis clarifies some aspect of the matter, but that in neither case is a detailed account forthright coming as to the exact nature of the link proposed – i.e. the exact point of contact and mode of contact between teacher and pupil. We shall further argue that within the Thomist philosophy of teaching an account is available within which a much more fundamental study of the problem becomes possible. The centre-piece of this is a precise account of the conditions under which pupil-teacher contact is possible – and, it will be argued, it does not contradict the 'standard thesis', rather does it expose the foundations within being upon which that view ultimately rests.¹⁷

II

Philosophical problems do not arise *in vacuo*. This is true in educational philosophy no less than in any other area of philosophical activity. Problems arise for a variety of reasons, the main one being the need felt by philosophers to deal with some particularly important and intransigent features of experience and reality. Problems, however, also have a philosophical context, i.e. they tend to be coloured by the manner of their presentation in the work of philosophers over the ages – an issue complicated by the widely different contexts within which philosophers present and deal with any given problem. For some philosophers, experience and reality provide the main sources of their speculations, whereas others might echo the words of G. E. Moore: "I do not think that the world or the sciences would ever have suggested to me any philosophical problems. What has suggested philosophical problems to me is things which other philosophers have said about the world or the natural sciences."¹⁸ Most philosophers, however, would tend towards a *via media*, with experience and the philosophical traditions providing intertwining settings for their activities.

The problem of teaching and its relation to learning is no exception, with most philosophers falling into the middle category. In St Augustine, e.g., the question arises in a practical educational context conditioned by the question as to whether one man can teach another or whether only God can properly teach.¹⁹ In St Thomas's *De Veritate XI* the context of the question is conditioned, among other factors, by Augustine's presentation of the problem with which the Angelic Doctor felt he had to grapple.²⁰ Throughout the ages, and at the present time, similar forces are discernible at work in the philosophy of teaching, conditioning the precise form and emphasis of

the discussion. It is within such a context that the 'standard thesis' arose and our first task is to take a brief look at this context.

In the early nineteen-thirties two of the central figures in educational thought in this century, John Dewey and William Heard Kilpatrick, made similar, and in context innocuous, pronouncements on the relationship between teaching and learning. As major forces in education, what they had to say received a great deal of attention and, over the years, their words, taken out of context, were as P. G. Smith puts it, "erected into a sacred dictum".²¹ The controversial statements both occur in discussions of good and bad teaching, and the issue of teacher accountability in that area. Dewey remarked: "Teaching may be compared to selling commodities. No one can sell unless someone buys. We should ridicule a merchant who said that he sold a great many goods although no one had bought any. But perhaps there are teachers who think they have done a good day's teaching irrespective of what pupils have learned. There is the same exact equation between teaching and learning that there is between selling and buying".²² On the same topic Kilpatrick wrote: "The salesman hasn't sold unless the customer buys. The teacher hasn't taught unless the child learns. I believe in the proportion: teaching : learning :: selling : buying."²³ In both cases the last sentence is the one which has caused the controversy. As the years went by these remarks, with all the educational weight attached to them, were collapsed into the slogan; 'There is no teaching when there is no learning'. Built into this slogan is the view that the notion of learning is a defining characteristic of the notion of teaching, and the occurrence of the former is a *sine qua non* of the latter. Put briefly the Dewey-Kilpatrick view, as we shall refer to it, states: 'Teaching implies learning'.

This view is not without its advantages, especially to educators and administrators who wish to have a neat formula for judging teacher performance and certification. If the efforts of Jones are producing learning then he is good, and may be certified, if not then . . . However, it is a view with a considerable amount of practical difficulty and paradox attached to it. Must we wait until after testing the pupils before describing ourselves as having been teaching? Does it make sense at all to say, "I taught Smith Latin in Form 3 and he never learned anything"? How are we to account for the situation where a teacher takes a class of ten for the Ablative Absolute and discovers that only eight have learned it? Are we to say he was teaching boys 1-8, but not boys 9 and 10? Are we to say he was both teaching and not teaching at the same time? In an early and pointed comment on this view and its practical and theoretical status H. Broudy remarked: "Many educators rather glibly pronounce the dictum 'if there is no learning there is no teaching.' But this is only a way of speaking, because no educator really believes it to be true or he would in all honesty refuse to take most of his salary."²⁴

However, whatever its practical difficulties and problems, it remains true that the Dewey-Kilpatrick view of teaching and learning seemed to many philosophers 'to stand in the road'²⁵ of progress towards a satisfactory account of the whole issue. A major group among those opposed to the Dewey-Kilpatrick view are the analysts who support the 'standard thesis'. For these analysts it 'makes no sense to say that if the student has not learned, the teacher has not taught. For learning is not stipulated as a characteristic of teaching.'²⁶ The obvious first move on the part of those espousing the 'standard' view is to set out to demolish the Dewey-Kilpatrick account not merely by pointing to its practical difficulties but, more radically, by undercutting its very foundations. In a classical paper on the topic B. O. Smith announces it as his declared purpose "to undercut conventional definitions by developing a descriptive concept of teaching and to distinguish it from other concepts with which it is often confused."²⁷ The Dewey-Kilpatrick view is the first obstacle he tackles on the way.

Smith allows that the Dewey-Kilpatrick view stresses the importance of learning in the educational domain, and of active participation by pupils in the teaching-learning situation. However, beyond this point, Smith claims, the Dewey view and the analogy with selling and buying begin to break down. The analogy seems plausible enough at first sight but "it will not bear inspection".²⁸ The notions of teacher teaching and seller selling are not strictly analogous and, further, the link between learning and the learner is quite different from that between buying and the buyer. Learning frequently, and noncontroversially, takes place without any form of instruction or guidance, whereas buying never takes place unless there is someone or something (e.g. a vending machine) doing some selling. Smith notes that some concept such as 'pupilling' would be more appropriate in the analogy. However, 'pupilling' in this context, could only mean 'receiving instruction' and would not be equivalent to 'learning'.²⁹

Further analysis, Smith argued, reveals that, while it is contradictory to say "I am selling and no one is buying" or "I am buying and no one is selling", it is not contradictory to say "I am learning and no one is teaching me" or "I am teaching and no one is learning". In the case of the last two what emerge as contradictories are the claims that (a) "I am receiving instruction (i.e. am 'pupilling') and no one is giving it to me" or (b) "I am teaching but no one is receiving instruction (i.e. no one is 'pupilling')". A supporter of the standard view comments on this situation as follows: "To teach requires an audience, if only an audience of one. No teaching, no audience, hence no chance to impart learning. The true assertion that Tom is receiving instruction is sufficient warrant for the conclusion that someone is teaching him . . . but not a sufficient condition for the inference that Tom is therefore learning."³⁰

Thus, according to Smith, the logic of the Dewey-Kilpatrick analogy is faulty and consequently misrepresents the real nature and status of the teaching-learning link. The conclusion of this phase of the argument is negative. Smith is satisfied that he has dealt effectively with the Dewey-Kilpatrick view and found it wanting. This opens the way for the separation of teaching from learning, at least at the conceptual level, and for the giving of a more positive account of the teaching-learning link. This is Smith's next move.

He notes: "The difference between teaching and learning may be further explored by reference to the distinction which Ryle makes between what he calls task words and achievement or success words."³¹ Using this distinction, Smith hopes to show that teaching and learning do not fall into the same logico-linguistic category and that a consequence of this is that the relationship between them must be a contingent one allowing for success and failure. To be more specific, Smith's view of the matter argues "by way of conceptual analysis that there can be teaching without learning; that teaching is a task word, not a success word; that teaching is one thing and learning is another and learning does not necessarily issue from teaching."³²

As this view relies heavily on the Rylean task-achievement distinction for its cogency, it is important that what is involved in Ryle's account be made clear. Indeed, as we shall see shortly, when clarification is sought on this point Smith's account of the matter as it relates to teaching and learning seems somewhat less than adequate.

In Ryle's account the distinction first appears, and is mainly used, in connection with the sorting out of paradoxes and puzzles which arise out of the morass of 'activity' and 'process' words connected with perception and mental activity in general. Ryle wished to distinguish such processes of perception as 'looking' from the completions of such processes, e.g. 'seeing'. To regard the latter as a process over and above that of 'looking' is a fundamental error in Ryle's view.³³ The task-achievement distinction has as its function the pinpointing of the difference between these performance or task words and the corresponding, but different, achievement or completion words. Task words refer to processes which are carried out and may be completed successfully or unsuccessfully, though their status as task words does not depend upon the outcome's being one or the other. Examples would be 'looking for' or 'running a race'. In both cases the task may be completed successfully (by finding and winning respectively) or they may be unsuccessfully completed (by failing to find and losing the race respectively). Achievement words, on the other hand, refer to the completion of tasks and processes and, while they are not all success words, they are all outcome or upshot words indicating a judged ending of some task or process. Achievement words do not pick out any new process or task and it is a

major error to see them as so doing. 'Finding', 'winning', 'hitting the target', 'missing the target' etc. are examples of such expressions. What Ryle wished to do was "to separate the doing from the judged end of the doing"³⁴ and by so doing to make the problems of confusion melt away.

Ryle is not very clear on the exact nature of the link between task and outcome; he is more concerned with the fact that they are not reducible one to the other. However, certain general points emerge from his account which indicate some important aspects of the distinction, particularly with teaching and learning in mind. Firstly, though the status of the link between task and achievement is left in doubt, there is nevertheless some such link. Secondly, tasks remain the tasks they are even if unsuccessfully completed. Thirdly, the task and achievement are seen as correlative to each other - i.e. there is an intelligible relationship between a task and its appropriate achievement(s). We may look and see, for example, but not look and hear. If a process *X* is incapable of having *Y* for its completion, either in the sense that *X* can never bring *Y* about, or in the sense that *X* alone can never do so, then *Y* is not the correlative of *X* in a Rylean sense at all.³⁵ Finally, a person engaged in a task cannot be meaningfully in doubt about the fact that he is so engaged, though he may have serious doubts as to the status of the outcome: "While we expect a person who has been trying to achieve something to be able to say without research what he has been engaged in, we do not expect him necessarily to be able to say without research whether he has achieved it."³⁶

Bearing in mind this synopsis of Ryle's distinction let us recall the use to which it is put by Smith. 'Teaching' is a task word and the corresponding achievement word is 'learning'. The former refers to a set of activities performed by the teacher with the intention that the learner learns. Like all task expressions, 'teaching' refers to a process which may or may not be successfully completed. It makes sense to talk of teaching carefully, attentively, intelligently, or carelessly, inattentively and unintelligently. 'Learning', however, is quite different. 'Learning' does not refer to a process, and if it occurs it is, definitionally, successful, and it makes no sense to talk of learning carefully, attentively, intelligently etc.

The practical upshot of the Smith position is that teaching is to be defined not in terms of any achieved learning, but as an activity or set of activities designed or intended to produce learning.³⁷ As far as our counter-examples in dealing with Dewey and Kilpatrick are concerned, Smith would find it easy to say that the teachers were teaching in all the cases provided their actions were intended by them to produce learning. For the teacher, the failure of the pupils to learn may indicate that he has failed to teach them successfully on this occasion, but they do not warrant the conclusion that the teacher in question was not teaching.³⁸ As such, the Smith view offers a differ-

ent account of teacher responsibility from that offered by the Dewey-Kilpatrick view, and a more reasonable one in the eyes of most educators.

However, Smith's view is not without its own analytic difficulties. In using Ryle's task-achievement distinction to support his positive account of the teaching-learning link Smith has certainly succeeded in showing the direction in which the language of teaching points, but he has done so only at the expense of claiming that 'learning' stands as the corresponding achievement of 'teaching' within the Rylean viewpoint. Now, in briefly setting out Ryle's view we noted four features of the task-achievement analysis which are of some significance for the correct understanding of it. These are (i) the link between task and achievement is contingent; (ii) tasks are open as regards success; (iii) the task and achievement must be appropriate and correlative; (iv) the agent in the task must be aware of his task, but need not be aware of its success/failure status. Let us see how these apply to Smith's position.

Points (i), (ii) and (iv) are evidently satisfied by his position. Indeed point (i) is quite clearly intended by Smith to open the way for the assertion of a causal link between teaching and learning.³⁹ Note his expressions: "teaching . . . may be defined as a system of actions *directed* to pupils"; and, more explicitly, "Were we to develop completely a general theory of teaching, we would be required to set forth a set of intervening variables, and to show their postulated *causal connections* with both independent, and dependent variables of our model."⁴⁰ However it is with point (iii) that Smith's difficulties begin to emerge. The problems arise out of the difficulties created by attempting to suggest that 'learning' is the corresponding achievement word to 'teaching'. While it is undeniable that teachers do influence the content and form of what pupils learn, it seems a little inappropriate to describe such learnings as if they were the teacher's achievements. Learning is what the learner does, teaching is what the teacher does, and surely it reflects reality more closely to regard each as having tasks and achievements appropriate to his own domain. Thus, as regards 'teaching', it surely picks out a set of tasks which a teacher may or may not perform, presumably with the intention of influencing the learning of his pupils. However, on occasions his influence is rewarded with learning, on other occasions it is not so rewarded. In both cases 'teach' occurs in its task sense, whereas in the cases rewarded by learning only does 'teach' occur in its achievement sense. In neither case is the learning in itself properly regarded as the achievement within the teaching domain. Similarly, in the case of 'learning', investigation shows the possibility of an internal task-achievement analysis. Thus, in the proposition "X is learning Pythagoras's theorem", 'learn' occurs in a task sense, whereas in "X has learned Pythagoras's theorem", 'learn' is used in an achievement sense. Thus, it would appear that at the level of language

analysis there is no possibility of a *simpliciter* application of the task-achievement analysis to teaching-learning expressions. 'Learning' is the learner's achievement, 'having taught' that of the teacher, and while the latter depends on the former this in no way implies that somehow learning is also the teacher's achievement.⁴¹

What follows from all of this is not that Smith is totally mistaken or that the 'standard thesis' must go by the board; rather what follows is that the task-achievement analysis cannot work as an effective support for the 'standard thesis' because the notions said to be related as task and achievement are not related in that way, or at least are not related as task and achievement corresponding to, or parallel with each other in the sense required. The 'standard thesis' may well be true, but Smith's procedure will not establish it as such.

One further point needs to be made before we move to the next stage of the argument. Smith clearly intends his account to suggest a causal link between teaching and learning, but he fails to spell out in any detail exactly what he has in mind. Presumably, from his mode of expression, he intends the link to be understood as efficiently causal, but no details are forthcoming on how this is to be interpreted and, since the normal pattern of efficient causality seems a little strong for the teacher-pupil link, the picture which emerges is altogether too vague. Thus, not only does Smith's exercise in analysis prove less than adequate to the task of establishing the viability of the 'standard thesis', but also his remarks on the precise nature of the link between teacher and pupil are too vague to be of any real assistance.

III

Smith's interest in teaching and learning and his eagerness to separate them one from another stem, in part at least, from his desire to set up a concept of teaching devoid of any built-in didactic theory and capable of underpinning empirical research. To this extent his failure to specify more clearly the precise nature of the link between teaching and learning is understandable, since it was not his central concern. However, when we come to T. F. Green and his more radical version of the 'standard thesis', we should not expect to come up against such a failure. Green, after all, wrote the following: "In any full philosophy of teaching we shall eventually have to give an account of just what it is that a teacher can be held accountable for"⁴², and, "Ultimately, a correct understanding of the connection between teaching and learning is crucial . . ."⁴³ Thus, from Green, one would expect to have a concrete and explicit statement on the precise nature and location of the teaching-learning link and its implications for accountability.

For Green, teaching, generically, is to be seen as a truth-related activity which is both rule-guided and rule-creating, and which has

connections with commitment and with certain sorts of learnings.⁴⁴ The concept of teaching is molecular, that is, "teaching can be best understood not as a simple activity, but as a whole family of activities within which some members appear to be of more central significance than others."⁴⁵ His approach to his topic is analytic, and in pursuing it he uses the Rylean task-achievement analysis, to which he is more faithful than Smith. His conclusions are more radical than those of Smith, in particular his assertion that teaching cannot be regarded as the cause of learning.⁴⁶ His support is for the 'standard thesis', viewed as non-causal.

Being more faithful to Ryle's version of the task-achievement distinction, Green puts forward some objections to its use in the context of teaching and learning. These parallel some of the objections made earlier in this paper, and Green's general conclusion is that "it may be a mistake to think of teaching and learning as task and achievement *simpliciter* . . .", but the distinction "may be used as a tool".⁴⁷ What this tool enables us to see, Green argues, is that "the link between teaching and learning must be some form of contingent connection."⁴⁸ The whole purpose of the analysis is to deny any logically tight link between teacher and learner. "It is not the case that the occurrence of learning necessarily implies that teaching has taken place, and conversely, it is not the case that engaging in teaching necessarily implies that anyone has learned. Therefore the conceptual link between teaching and learning cannot be interpreted as in any sense analytic."⁴⁹ This embodies a clear statement of the 'standard thesis' not altogether different from that of Smith. What distinguishes Green from Smith, however, is the former's assertion that the task-achievement analysis also rules out a causal account of teaching and learning.

This denial of any causal link stems from Green's analysis of the notion of cause, as well as from the task-achievement analysis, and is something which he himself finds difficult to accept - though he nevertheless believes it to be correct.⁵⁰ Green is convinced that there is some link of a positive kind between teacher and pupil since "teaching does sometimes contribute to learning" and "learning is sometimes the result of teaching", but to suppose that "learning is the effect of which teaching is the cause, that learning is produced or caused by teaching" is to be mistaken.⁵¹ Teaching cannot be the cause of learning, for it is possible both for learning to occur without any teaching, and, as the task-achievement analysis shows, for teaching to occur without learning.⁵² From these comments we can outline a number of features of Green's view of causation. Firstly, causal relations obtain between contingently related terms, though not every contingent relation allows a causal analysis; e.g. that of teaching and learning does not. Secondly, if two terms are related as cause and effect, e.g. X (cause) and Y (effect), then it is odd for X to occur and not to be followed by Y . Thirdly, following the last point,

it is also odd to say X (cause) and Y (effect) are causally linked if Y can occur without X 's having occurred. This position Green neatly characterises by noting that causal relations are sets of "contingently necessary and sufficient conditions."⁵³

The setting for Green's extended discussion of causal relations is a discussion of the twin notions of necessary conditions and sufficient conditions, in which he also distinguishes between sets of *a priori* necessary and sufficient conditions and *a posteriori* necessary and sufficient conditions. It is this latter distinction which is vital, according to Green. In the case of both types of conditions the relations are said to be necessary and sufficient if X implies Y and Y implies X . However, in the case of *a priori* necessary and sufficient conditions the relationship is not discovered empirically to be the case and, further, its denial involves self-contradiction. In the case of *a posteriori* necessary and sufficient conditions, on the other hand, the relationship is discovered by empirical study and any denial involves falsehood only, not self-contradiction. The discovery of a set of conditions of the latter sort is, according to Green, the discovery of a set of causal relations.⁵⁴

It is fairly evident that, if Green is right about causal relations, and further if the analysis given is, as it is evidently meant to be, exhaustive of types of causal links, then teaching cannot under any circumstances be regarded as causally linked to learning. Teaching is obviously not related to learning in such a manner that the occurrence of either one is a necessary and sufficient condition for the assertion that the other has also occurred. While it may be a little controversial to say, without comment, that there can definitely be teaching without learning, it is not at all controversial to say there can be learning without teaching. However, since a causal link is a two-way link in the manner described, the breaking of either arm of the link is sufficient for us to conclude that the relation in question is not a causal one. Teaching, thus, is not the cause of learning and causation will not provide the basis upon which teacher accountability may be seen to rest.

What then is the nature of the link between teaching and learning in Green's view? We may recall that the establishment of the precise nature of this link is seen by Green as vital, so the time has come to seek his positive view on the matter. Unfortunately disappointment is in store for us at this point. Apart from his separationist use of the task-achievement analysis and his denial of a causal connection, Green also explores, very briefly, the idea that teaching and learning may be related as process and product.⁵⁵ His conclusion once again is negative: "A complete study would reveal that all such manufacturing metaphors and all such causal and simple task-achievement metaphors are wrong when it comes to understanding how teaching and learning are related."⁵⁶ What we are left with then is a series of negative conclusions and one rather

vague positive assertion: (i) Teaching is *not* logically or analytically related to learning; (ii) Teaching is *not* a cause of learning; (iii) Teaching and learning are *not* related as process and product; (iv) Teaching is contingently related to learning, in that learning is at times a result or upshot of teaching. However, as Dietl points out, "Green gives no account of 'upshotedness'."⁵⁷ Thus, once again, we are left without any positive and clear account of just what the relationship between teaching and learning is. In the case of Green, however, the failure to provide such an account is somewhat more surprising in the light of his clear belief in the importance of being able to do so.

As well as this failure, and the inadequacies of the task-achievement analysis (of which Green himself is aware), Green's account also raises some difficulties which bear directly on the analysis and use of causation which he presents. It might be argued, for example, that in denying any causal efficacy to teaching Green's account flies in the face of the empirical facts and the experience of a vast number of teachers throughout the ages. Further, and more importantly from the point of view of philosophical inquiry, it might be argued that Green's account of causation is too narrow, and ignores the complexity of possible connections and relations between different types of causes and their several effects. As far as the first is concerned, even Green admits to finding it "immensely difficult to accept this analysis of the relation – or lack of relation – between teaching and learning."⁵⁸ The language of teaching, he allows, is overtly causal in tone and content and we constantly "think of teaching, in all its aspects, as an activity directed at 'making something happen'."⁵⁹ A detailed study of the language of teaching and of the activities of teachers in their classes serves to bear out the extent to which teaching is viewed as causal and uses a causal terminology.⁶⁰

Turning to the second difficulty, about which more will emerge in the next section, we may note that the language of causation supports a view of the nature and complexity of causes considerably wider than that presented by Green. We do not restrict ourselves to talk of causes only in direct efficient contexts, rather are we prepared to allow talk of a wide spectrum of factors as causal. To take one example, we have no hesitation in seeing our aims as causal factors in our present tasks, and in doing so we are not unaware that the causation involved is different from that involved in the production, by a stone, of ripples on the surface of a lake into which it is thrown. A recent phenomenological study of causation in education shows quite clearly, at a descriptive level, the extent of the inadequacy of Green's analysis of causation.⁶¹ As Green defines 'cause', it is analytic that teaching cannot be the cause of learning, but if his analysis of causation is faulty then this conclusion is faulty too. In the next section we shall outline a view which enables us to expand

the notion of cause to include a form of causation not subject to, nor possible under, the restrictions placed on causation by Green.

At this point, however, a summary of the position so far is in order. Our central concern so far has been to see just what account of the teaching-learning link emerges from the work of two major figures in the analytic movement in educational philosophy. Both support the 'standard thesis' and one, Green, goes as far as to couple with this the view that teaching is not the cause of learning. In the course of their arguments both make use of the Rylean task-achievement analysis, though Green is not too happy with this aspect of the matter. We have seen how this analysis fails to support the 'standard view' since teaching and learning are not amenable to it in the required sense. In connection with Green's denial of any causal link we have hinted that this stems from an inadequate display of the complexity of causal relations, i.e. it follows only on Green's restricted view of causation. More importantly, we have seen that in neither case is an adequate, clear and forthright statement available as to the precise nature of the teaching-learning link. This last point is crucial since, as we have noted on a number of occasions, it is precisely on this point that the entire matter of the teaching-learning relationship hinges. In short, the philosophies of teaching which we have examined are found to be seriously wanting on this critical point.⁶²

In the next section we turn to a non-analytic account of the question, an account which seeks the solution to its problems not in the informal logic of the language of teaching and learning but in the ultimate nature of learning and teaching, i.e. in a metaphysical appraisal of the possible points of contact between a teacher and learner and the nature of that contact. At this level of analysis, we shall argue, the 'standard thesis' gets a new lease of life. No longer is it a thesis about the language of teaching, rather has it become a thesis derived from the metaphysics of teaching and learning, a thesis grounded in being.

IV

Smith and Green both fail to provide a firm and solid philosophical basis for the 'standard thesis', or a precise account of the nature of the link between teacher and pupil. This is in stark contrast to the account of the matter which emerges within the framework of the philosophical tradition of St Thomas Aquinas, and indeed in the work of the Angelic Doctor himself. The tone, setting and approach of the Thomist philosophy to the question differ markedly from those of analytic philosophy. As a realistic metaphysical philosophy, Thomism seeks its solution not in the informal logic of language, not in the subtleties of usage or the complexities of linguistic categories, but in the realm of a fundamental analysis of being. Language, of course, falls into the category of being, and the Thomist ignores it

at his peril; yet the metaphysician seeks his foundations for meaning beyond language in, and through, reflection on his experience and the whole of reality.⁶³

Turning to the work of St Thomas, we may note immediately that, just as the writings of Smith and Green display the influences and interests of their historical setting, so also do those of Aquinas. Smith and Green wrote against a Deweyan background which stimulated their raising of the teaching-learning issue, and conditioned their presentation of it. Further, the causal analysis which plays such a crucial role in Green's account is clearly post-Humean in temper. In the case of St Thomas the causal picture involved is Aristotelean in derivation, and the figure appearing across the horizon of history and dominating the Christian world in which he lived is that of St Augustine. Augustine, in his *De Magistro*, posed the question as to whether one man can truly be said to teach another, or whether this falls to God alone. His reply is evident from the following: . . . "even though I speak about true things, I still do not teach him who beholds the true things, for he is taught not through my words but by means of the things themselves which God reveals within the soul."⁶⁴ Thus, for Augustine, one man cannot properly teach another, such is the prerogative of God alone; a view firmly rooted in the general philosophical position of Augustine. St Thomas, however, when he poses the same question,⁶⁵ claims that while God is, in the last analysis, responsible for man's knowledge and power to know, nevertheless it is proper to speak of one man as teaching another, if this is seen as intending only that one man can feature as a secondary cause of the other's knowledge. Aquinas argues that man, as secondary cause, is dependent upon God for his being and power as cause, but has, within the domain of secondary agency, a proper causal role in his own and others' learning. In his own learning he operates as principal secondary cause, in teaching another he operates as instrumental secondary cause. In neither case is he the complete and total cause of the learning, but in both cases he is a real cause. This, briefly, is the view of Aquinas, and it is to the details of this view, and the framework for dealing with teaching and learning which it provides, that we now turn. Our aim is not to give a commentary on the text of St Thomas, but to provide a Thomist perspective on the issues raised in the previous sections.⁶⁶

St Thomas and his followers contribute to this discussion through a concept of cause and a concept of learning which illustrate both the complexity of the notion of cause and the possible avenues through which teaching might interact with learning. On the one hand, the causal analysis is pushed forward to reveal a degree of complexity ignored completely by Green and Smith. On the other hand, the analysis of learning reveals just why it is that the teacher cannot in any case claim to be responsible for the learner's activity in any direct sense, while opening up the possibility of indirect responsibility.

Taken as a whole the picture which emerges pays due respect to the integrity of both teacher and learner, and to the language and facts of both teaching and learning.

Turning first to the notion of causation, we have already noted that the account presented by Green is restricted to one specific type of direct efficient causation. On Green's account, if *A* is said to be the cause of *B*, then a set of necessary and sufficient conditions have been uncovered the implications of which are that, given *A* then *B* must result, or given *B* then *A* also must have occurred. The occurrence of either in the absence of the other provides sufficient grounds for denying that the link in question is causal. Green focuses on the *succession* dimension of causation and tends to ignore, or to leave out of the discussion, the exact nature of causation and the precise location of the causality of the agent. Within the Thomist framework a notion of cause is available which resembles somewhat that of Green: the notion of a natural unfree cause. Speaking of such causes St Thomas remarks:—"Apropos of irrational potencies, whenever a passive potency approaches an active in that disposition in which the passive can suffer and the active act, it is necessary that the one suffer and the other act, as when that which is combustible is applied to fire."⁶⁷ However, even here the account of Green and that of St Thomas are poles apart. For Green the only 'necessity' involved is inductively based and open to change, whereas for Aquinas it is a necessity rooted in and demanded by an extensive metaphysic of being. Moreover, in the Thomist analysis the natural unfree cause is but one type of cause in one division of causation; for, as well as efficient causation, Thomism also accepts the remaining members of the four-fold division of causes set out by Aristotle: material, formal and final causes. The general notion of causation which underlies and supports these distinctions and divisions within causation is much more general, and more flexible, than the concept of cause espoused by Green. For the Thomist the central notion is not that of regularity of succession, but that of dependence in being or becoming. *A* may be said to be a cause of *B* on this account if *A* exerts a positive influence on either the being or becoming of *B*, such that it is meaningful to regard *B* as dependent on *A* in some relevant sense,⁶⁸ though not necessarily in a sense implying efficiency in the cause.

Now it is fairly evident that if teaching does turn out to be a cause of learning it cannot be causal in a formal, material or final sense, since teaching could never be intelligibly described as that out of which learning is made (material cause), that which makes learning to be what it is, formally (formal cause), or as the aim or purpose of learning (final cause).⁶⁹ Further, the work of Green has the positive merit of indicating that teaching cannot be seen as any simple productive efficient cause of learning—such a model is far too strong to accommodate either the language, or the facts, of

teaching and learning. However, if teaching has a causal role in learning it must be within the wider domain of complex efficient causality, since it is permanently excluded from the other causal domains. It is to such a complex type of efficiency that St Thomas directs us when he deals with the issue in terms of principal and instrumental causation.

Principal-instrumental causation is ideally suited to the needs of complex co-operative causal situations. Consider the example of a man cutting wood with an axe. We tend to regard the man as *the* cause of the cutting since, were he to lay aside the axe, then the axe, on its own, would simply lie there. There is a good deal of truth in this view, but it is not the whole story. If we put aside the axe, then the man also is rendered incapable of cutting the wood – so the axe must make some contribution to the total activity. True, the contribution of the axe is subservient to the contribution of the man – it serves his ends – but it nevertheless contributes in a positive sense to the outcome. Further, the axe leaves its distinctive mark on the end product: wood cut with an axe is cut differently from wood cut with a saw. The axe or saw operate in the cutting process under the guidance and control of the man using them, they are used to accomplish his ends, they are subjected to his finality. By this subjection the axe or saw become involved in the production of ends far beyond their own natural capacity; they are, so to speak, raised to a level of operation which transcends their condition in being. In such types of co-operative productive action the guiding or controlling influence is referred to as the principal cause, the guided, controlled, subservient agent being termed the instrumental cause. In the co-operative situation they are not acting as two causes to produce one effect, but act in concert as one cause to produce an effect denied them as individuals.

Such types of causal complex display one further aspect which is of interest to our discussion: the result is always a very hazardous matter, it is always possible for internal or external factors to thwart the causal action. The principal cause bears the brunt of the responsibility in the causal totality, so it is only to be expected that, if there is a fault of some kind in its being or action, then the totality is put in jeopardy, even though the instrument may be suitable and fully operational. Likewise if the instrument is not up to the mark it may destroy the whole, even though the principal be fully operational. To return to the wood-cutting example, the axe may turn out to be blunt – or too sharp – or the wood-cutter may be a bungler or an inattentive person. In order for the causality to be realised properly it is not only necessary that the two elements co-operate, but also that they be in a fit condition to do so.

The main features of this type of causation may thus be summarised as follows: (1) An instrumental cause operates as instrument under the direction of a superior cause – the principal. (2) As instrument,

it is constituted in its being by being able to attain an end beyond its own condition – this it does subject to the principal's finality. (3) The instrument is not totally passive in the affair but makes its own contribution according to its nature. (4) The outcome in such cases of causation is precarious owing to the many possibilities of failure which the complexity of the situation, and the need for co-operation, open up. (5) The total relationship should be seen as one complex cause, not as two causes.⁷⁰

Is there a case to be made out for regarding the teaching-learning link as an instance of principal-instrumental causation along the lines outlined above? St Thomas and his followers certainly think so, and to see why this is we must turn to the second arm of the Thomist contribution to this general area of discussion: the Thomist philosophy of knowledge and learning. As one recent text puts the matter: "One way to pinpoint the teacher's role is to list and describe carefully the things that are necessary or helpful in learning, and to see which of them the teacher can or does provide."⁷¹

Basically two things are needed in learning or coming to know⁷² anything: the power of learning or knowledge, and something to be learned or known. The central issue in the philosophy of learning and knowing is how the two come together to produce a cognitive act. The issue is complicated by the fact that man is a being immersed in a physical universe, yet whose ability to know puts him to some extent beyond the normal level of explanation available in such a universe. Knowledge enables man to transcend the conditions of his materiality and, in a sense, to become all things. By knowledge man can lay hold of and understand his world without any direct physical link existing between him and the world on that account. Cognition is not just another physical relationship among a whole set of such relationships – it defies physical analysis, though it does involve, at the sensory level, a physical dimension. In cognition, both object and knower retain their respective ontological integrities, and, while the knower is altered in the sense of being perfected by knowing, this alteration is consistent with his being, rather than involving any alteration of that being.

At the outset, this power to know or to learn is open, it is not determined to know *X* rather than *Y*; yet in order to know it is necessary that something be known, that is, that the cognitive power be determined to know *X* or *Y*. It is at this level that man's immersion in the physical world appears as a factor in cognition. That world is, after all, a world of *X*'s and *Y*'s, a world of specific objects, and through his sensory capacities man has contact with that world, is in touch with specific knowables which in turn specify and particularise his cognitive acts. However, as well as the dimension of specific knowledge provided by sense, man displays the ability to generalise, to have cognitive experiences not amenable to sensory analysis: he has the power to grasp meanings. This power,

residing in the intellect, is, unlike sensation, a dynamic ability to elicit from the data of experience the intelligibility which lies behind those data. In discovering this intelligibility the intellect is still dependent on sense for its contact with the concrete reality to be understood, but the end-product is of a far higher level than the particular, individual product of sensory cognition.

Cognition in man, then, is a co-operative affair; it involves man's sensory dimension, yet it transcends that dimension; it involves his ability to generalise, yet a generalising power which needs sense to provide it with the material to work on. In the traditional language of Thomism, the end-product of sensation, the image, becomes, as phantasm, the starting-point of understanding; the phantasm, by enabling the intellect, which as immaterial cannot directly contact the outside world, to deal with highly-organised specifics, determines what is understood on any given occasion, but it is intellect which elicits the act of understanding on each occasion. Without the other, each must remain forever devoid of any proper function, but together they co-operate to provide man with the highly-sophisticated network of ideas in and through which he copes with his world.

Within cognition, then, there is already a divided responsibility; there is already co-operation, there is already a complex causal set-up. Neither intellect nor sense alone can produce knowledge; to do so requires both, and the contribution of each is different. In dealing with this internal complexity the principal-instrumental distinction immediately springs to mind. Is it not the case that sense and intellect, or more specifically phantasm and agent intellect, relate to each other as members of a principal-instrumental cause complex? On this point St Thomas notes: "When the possible intellect receives the species of the things from the phantasms, the latter act in the way of an instrumental and secondary agent, while the agent intellect acts like the principal and first agent. That is why the effect of this action in the possible intellect has some of the features of either agent."⁷³ Bearing in mind what was said above about the instrument being constituted in its being by its subjection to the finality of the principal, the gloss of Maréchal on this point is instructive. He writes: "In the instrumental causes of which we have direct experience, the instrument's own efficiency always acts as a vehicle for the principal's action. However, it is evident that, in intellection, the phantasm, as material, exercises no proper direct efficiency on the passive intellect; its total role consists in presenting a diversified form, a specification, to the activity of agent intellect. In this sense only can one say that the phantasm is the instrument of the agent intellect."⁷⁴ While it is important to be clear on this point it is nevertheless the case that the link between agent intellect and phantasm, or more generally between sense and intellect, is a co-operative link capable of being understood along the lines of a principal-instrumental causal model.

Within the pupil's own learning, therefore, i.e. within what St Thomas calls learning by discovery,⁷⁵ there is already present a complex instrumental causal relationship, one pole of which is provided by sense experience which links the learner to the world outside and specifies what is learned by him on any given occasion. Thus it is evident that, in discovery, the type, extent, organisation and complexity of experiences are decisive factors in what the pupil eventually understands. It is this experiential dimension which provides him with his raw material – the material from which he produces his images and phantasms. It is upon this material that the agent intellect brings its action to bear, and this material conditions the concepts which are formed. It is for reasons such as these that Guzie finds it possible to define learning, in the perspective of philosophical study of the topic, as "the acquisition and organisation of images". More specifically, learning involves all that knowing involves, but it involves it in an ongoing manner. In learning the pupil is moving from image to image, from insight to insight, from judgement to judgement, in an ever growing complexity. But the fundamentals of the process are the fundamentals of the act of knowledge which is, in any case, the term of the learning, its goal.

In discovery learning, therefore, the student's agent intellect is the principal cause, his sense experience, or more specifically his phantasmas, the instrumental cause. At this stage of the argument the avenue of contact for the teacher's acts is becoming fairly evident. For the pupil to learn, he needs to engage actively in the learning process, but he also needs something to be engaged upon and this is supplied by phantasms and experience, and is something over which his control is reduced to a minimum. A person cannot have his experience to order, he can only experience what is there to be experienced; and this holds true of his linguistic experience as well as his more general sensory experience. In being so dependent upon an element which eludes his effective control, the learner is open to outside influence, and it is through this opening that the activity of teaching intervenes in the learner's activity.

If we examine what the teacher does, we find ample evidence to support this view. Teaching consists largely of a series of actions more or less contrived by the teacher with the intention of getting the student to learn. In pursuit of this objective the teacher resorts to a vast array of audio-visual aids from 'talk and chalk' to the sophisticated technology of the modern well-equipped school. In all of this activity the teacher is aiming to engage the student's learning activity by specifying what is to be learned, organising the appropriate experiences and material, and facilitating, in whatever manner is open to him, the understanding of what he specifies. The teacher cannot directly elicit the learning acts of the pupil, i.e. he cannot learn for him; so his influence is confined to this experiential dimension of the learner's cognitive apparatus, the dimension

which, as we have seen, already plays an instrumental role in discovery.⁷⁷

The teacher, however, is at an ontological distance from the learner and his role needs to be specified a little more closely on this account. The teacher cannot directly place *phantasmata* in the learner; the most he can do is so to organise the material from which the student is to derive his *phantasmata*, so to present his materials to the pupil as to specify what those *phantasmata* will be. In so doing the teacher adapts his activity to the natural dynamism of discovery learning, seeking to aid and specify that natural activity. As Aquinas remarks, when a process can be effected both by nature and by art, then the best way for the art to proceed is through the imitation and simulation of the natural process.⁷⁸ The teacher in acting as described instantiates this general principle: he co-operates with and depends on co-operation from the pupil.

The final elements in the picture emerge when we recall that an instrument acts as instrument under the finality of the principal. In teaching and learning the finality involved turns out to be the same for both teacher and pupil, though it is so from opposite poles of the activity. In teaching the pupil 'X', the teacher aims at the student's learning 'X'; in following the teacher the pupil also aims at learning 'X'. As Martin notes: "... whatever the remote purposes may be on the part of either the teacher or the student, such purposes must be compatible with the immediate final cause. The immediate final cause must be the same for both student and teacher."⁷⁹ Also, subject to the finality of the principal, the instrument can co-operate in the production of an end far beyond its own ordinary limits. In the case of teaching this condition is fulfilled when we note that the pupil's learning 'X' is the product, and the teacher effects this product by ensuring that it is 'X' and not 'Y' that is the content of the learning. Within learning by discovery, this specification, by *phantasmata*, is already instrumental; in teaching the difference is that it derives from the teacher, whose action is aimed at specifying what these *phantasmata* will be.

The instrumentality of teaching, then, may be stated as follows: Teaching disposes and organises the acquisition of *phantasmata*, an action which, in turn, modifies and determines the content of the total intellectual act of the pupil. In this way the teacher's acts, which can, of themselves, in no way condition the passive intellect of the pupil, his capacity to know, yet attain this end by co-operating with the pupil's inner intellectual dynamism and specifying its content. In this sense the teacher's activity is instrumental. The pupil remains the principal cause of his learning, and ultimately the teacher's action is intelligible only in conjunction with, and in subordination to, that of the pupil.

Teaching, thus, has a causal role in learning, but it is a radically different role from that considered and dismissed by Green. On the

instrumental view it is quite improper to see teaching as a simple productive process *vis-à-vis* learning. Rather is the role of the teacher that of a specifying cause, a cause which is only one of the causes of learning, and a subordinate cause thereof. On this account the integrity of the learner and his proper responsibility for his own intellectual acts are respected, as are the integrity and influence of the teacher. On this account the teacher is viewed neither as manufacturer nor as impotent bystander, but is restored to his proper place in the educational enterprise as guide and director of his pupil's learning.

As far as the 'standard thesis' is concerned we are now in a position to locate the intelligibility upon which it is based. We have noted above that in cases of instrumental causation there are a great many things which can go wrong without it being necessarily the case that both elements must be described as defective. The case of teaching and learning is no exception to this rule. Teaching sometimes results in learning, and, when it does, it accomplishes this causally along the lines noted already. However, on many occasions teaching fails to produce learning. On these occasions the source of the trouble may rest with the teacher, the pupil or both. As principal cause of the learning it is obvious that should the pupil be lazy or ill, or merely inattentive and inclined to day-dream, then his eliciting of agent acts i.e. his active participation in learning, will be greatly diminished. Since the total act so deeply relies on this not being so, we should not be surprised if the teaching fails when it is so. However, in cases such as these the teacher may have acted in a quite proper and adequate manner, disposing, ordering and multiplying examples for the benefit of the learner. Thus, it is not right to deny that he was teaching, since he performed faultlessly in the domain under his control. Of course, there are cases where the teacher is at fault, and is so in a sense which positively excludes him from any claim to have been teaching; e.g. if it is he who is looking out of the window, is day-dreaming or inattentive. Thus, the failure of learning may indeed be grounds for claiming that there was no teaching, but it is not always so, and there is no necessity involved in either case. When the teacher performs his end of the co-operative task in a proper and intelligent manner then he is properly described as teaching, whether anyone learns anything or not.

It is this sense of 'teaching' which lies behind the views of those who propose the 'standard thesis', and to this extent their work points in the right direction. However, it is only in terms of an adequate conception of causality and of the nature of learning that the relationship between teaching and learning can be properly specified, and the full significance and ultimate foundation of the 'standard thesis' displayed. Teaching does not imply learning, but this is not a conclusion from the informal logic of the language of teaching – though such language points clearly in this direction; rather is it the case that an

instrumental cause, be it teaching or an axe or a saw, can never, by itself alone, produce the end product. For this it needs the co-operation of another, and only when both co-function properly will the result stand a chance of being realised. In all other cases the effect will fall short of what is desired.

In the light of this account of the matter Green's demands concerning the need to specify in detail the nature of the teaching-learning bond and to account for teacher responsibility are clearly met. As to the first, teaching is fully and accurately described as the instrumental cause of another's learning, with all that is implied in the concept of instrumentality. As to the second, since the teacher is but one cause in a complex, no cut-and-dried answer is available in any case. What does follow is that, while the teacher bears a responsibility for the occurrence of learning, he can in the long run but seek to stimulate the pupil to participate actively and to ensure that, should he do so, adequate material will be at his disposal. The teacher is also accountable for *what* is learned i.e. for the extent of the material presented, its accuracy, variety and so on, and in this area he bears a greater share of responsibility than the pupil. Thus, if the pupil merely fails to learn, the responsibility issue is in doubt, but if a pupil who is otherwise a good learner turns out to have defective and inadequate knowledge of his topic, then this may be a pointer to bad and sketchy teaching, and the responsibility obviously lies with the teacher.⁸⁰

V

The view of teaching and learning which emerges within the Thomist framework pushes the limits of the inquiry far beyond those of the analytic philosophers. By so doing conclusions are arrived at which, while they are not in opposition to those of analysis, take their meaning and force as conclusions from a dimension of being beyond the surface of language. Thus, there is implicit in this account a rejection of the efficacy of the analytic approach, a rejection based on the view that, while language can and does provide a wealth of clues for the philosopher to follow up, these only lead us to the edge of insight, and we need to probe beyond language to the underlying reality if we are to come to grips with the heart of the problems which concern us.

In conclusion we may draw attention to the fact that the analysis of teaching which emerges serves both to illustrate the relevance of Aquinas and his work for educational philosophy today and to reinforce his view that teaching is, in the final analysis, an art and not a science. As an art, teaching takes on its haphazard dimension and depends for its success not only on the knowledge and intellectual ability of the teacher, but equally, if not more so, on his creativity, imagination, enthusiasm, and his understanding of human motivation and desires. As J. W. Donohue remarks: "... for Thomas the

great teacher is a great rhetorician in the radical sense: a man who can adapt his words to his purpose in the most telling manner. If he has this power over language, he can communicate his own thinking in a useful way because he can select the words that will function effectively as signs. He will command a wealth of metaphor and example all designed to stimulate and guide the student to engender in himself the desired intellectual dispositions."⁸¹

Notes

1. A list of authors would require a publication unto itself. A glance at a work such as Baskin, Wade (ed.) *Classics in Education* (London: Vision, 1966) or at the list of references on education on pages 384 to 399 of Volume I of *The Great Ideas* in 'Great Books of the Western World' (General editor: R. M. Hutchins) published by Encyclopedia Britannica (Chicago: 1952) indicates both the extent of the published work and the number of major thinkers whose work it involves. There is, as yet, no definitive history of educational philosophy, nor anything even approaching the demands of such a work.
2. The definition appears in *Democracy and Education* (New York: Macmillan 1961), p. 328 - a reprint of the 1916 classic. In an autobiographical essay in Adams, G. P. and Montague, W. P. (eds.) *Contemporary American Philosophy, Vol. 2* (London, Allen and Unwin, 1930) p. 23, Dewey wondered why philosophers 'have not taken education with sufficient seriousness for it to occur to them that any rational person could actually think it possible that philosophy should focus about education as the supreme human interest, in which, moreover, other problems cosmological, moral, logical come to a head.'
3. G. F. Kneller in his *Logic and Language of Education* (New York: Wiley, 1966) distinguishes between formal (constructivist) analysis, e.g. Carnap, and informal (ordinary language) analysis, e.g. Ryle, Strawson *et al.* Henceforth we shall refer to the latter form of analysis in using words such as 'analysis', 'analyst' and their derivatives. See chapters 6-9 of Kneller for a detailed treatment of the topic. See also Magee, J. B. *Philosophical Analysis in Education* (New York: Harper and Row, 1971) for a recent survey of work in this area.
4. See the article by W. K. Frankena on 'Philosophy of Education' in Deighton, L. C. (ed.) *The Encyclopedia of Education* (New York: Macmillan and Free Press 1971) Vol. 7, pp. 101-4. Also Frankena, "Educational values and goals: some dispositions to be fostered", *The Monist*, 52, 1968, p. 3. For a recent Thomist perspective on recent theories see Melcon, A. "Santo Tomas y los modernos sistemas de education", *Estudios Filosoficos*, II, 1962, pp. 5-32. On Thomism see Donohue, J. W. *St Thomas Aquinas and Education* (New York: Random House, 1968) and Joly, R. P. *The Human Person in a Philosophy of Education* (The Hague: Mouton 1965). On Existentialism: Bollnow, O. F. *Existenzphilosophie und Pädagogik* (Stuttgart: Kohlhammer Verlag, 1962). On Marxism see Blake, W. N. *Education in Karl Marx's Concept of Labour* (Dissertation, University of Alberta, Edmont, 1967).
5. See, e.g., Broudy, H. *et al.*, eds. *Philosophy of Education: An Organisation of Topics and Selected Sources* (Urbana: University of Illinois Press, 1967) and Smith, C. and Broudy, H. eds. *Philosophy of Education: An Organisation of Topics and Selected Sources: Supplement 1969* (Urbana: University of Illinois Press 1969). Also the annual 'Reviews and Rejoinders' issues of *Studies in Philosophy and Education* which include a listing of recent work.

6. With the notable exception of Hardie, C. D. *Truth and Fallacy in Educational Theory* (Cambridge: University Press, 1942). Ryle's *Concept of Mind* (London Hutchinson, 1949), though a seminal work in ordinary language educational philosophy, could scarcely be called a book on education.
7. Kneller, G. F. op. cit. p. 208.
8. Frankena, W. K. op. cit. p. 3.
9. Kneller, G. F. op. cit. p. 207-8.
10. Scheffler, I. (ed.) *Philosophy and Education* (Boston: Allyn and Bacon, 2nd edn. 1966) p. 4.
11. Dimin, S. "Recent Trends in Educational Philosophy". *Jewish Education*, 37, 1967, p. 105.
12. Green, T. F. *The Activities of Teaching* (New York: McGraw-Hill, 1971), p. 144.
13. For a detailed list of work in this field see the bibliographical sources listed in note five above. Some of the central articles have been collected in the following anthologies: Bandman, B. and Guttchen, R. S. (eds.) *Philosophical Essays on Teaching* (New York: Lippincott, 1969); Macmillan, C. B. J. and Nelson, T. W. (eds.) *Concepts of Teaching: Philosophical Essays* (Chicago: Rand McNally, 1969). Reference may also be made to Hyman, R. (ed.) *Contemporary Thought on Teaching* (New Jersey: Prentice Hall, 1971) and Nelson, L. (ed.) *The Nature of Teaching* (Waltham, Mass.: Ginn & Co., 1969). These last two contain a wide variety of nonanalytic opinion as well as some papers by analysts.
14. The expression is that of B. Paul Komisar. See his "Teaching: Act and Enterprise", *Studies in Philosophy and Education*, 6, 1967-68, pp. 168-193.
15. See Smith, B. O. "A Concept of Teaching", in Bandman and Guttchen, op. cit., pp. 3-20.
16. See Green, T. F. op. cit.; also the same author's "Topology of the Teaching Concept" in Bandman and Guttchen op. cit. pp. 34-65.
17. We may briefly state at this point that it is not, of course, the case that all analysts support the 'standard thesis'; however, the standard view appears to be the most widely held view among analysts. Among those opposed to it completely or partially, are: Gowin, D. B. "Teaching, Learning and Thirdness", *Studies in Philosophy and Education*, 1, 1961, pp. 87-113; Powell, J. P. "Philosophical Models of Teaching", *Harvard Educational Review*, 35, 1965, pp. 494-496; Komisar, B. P. "Teaching: Act and Enterprise", *Studies in Philosophy and Education*, 6, 1967-68, pp. 168-193. Helen Freeman offers a general critique of the 'activity' concept of teaching and the 'standard thesis' in "The Concept of Teaching", *Proceedings of the Philosophy of Education Society of Great Britain*, 7, 1973, pp. 7-25. For a general review of the topic and related issues see also the late Paul Dietl's "Teaching, Learning and Knowing", *Educational Philosophy and Theory*, 5, 1973, pp. 1-25.
18. Moore, G. E. "An Autobiography" in Schilpp, P. A. (ed.) *The Philosophy of G. E. Moore* (Evanston and Chicago: Northwestern University Press, 1942), p. 14.
19. See Augustine's *De Magistro* (Concerning the Teacher), translated by G. G. Leckie (New York: Appleton-Century, 1938).
20. Aquinas *De Veritate* q. XI in *Truth*, Vol. II, translated by R. W. Mulligan (Chicago: Regnery, 1952). The first article of q. XI asks "Can a man or only God teach and be called a teacher?"
21. Smith, P. G. "Philosophy and the Teaching-Learning Process", *Philosophy of Education, Proceedings, International Seminar* (Ontario Institute of Education, 1966), p. 37.
22. Dewey, J. *How We Think* (New York: D. C. Heath, 1933), p. 35-36.
23. Kilpatrick, W. H. *Foundations of Education* (New York: Macmillan, 1935), p. 268.
24. Broudy, H. S. *Building a Philosophy of Education* (New Jersey: Prentice-Hall, 1954), p. 14.

25. Smith, P. G. op. cit., p. 37.
26. Smith, B. O. "On the Anatomy of Teaching", *The Journal of Teacher Education*, 7, 1956, pp. 339-346, reprinted in Rich, J. M. (ed.) *Readings in the Philosophy of Education*, (Belmont, California: Wadsworth, 1966), pp. 331-340. The quotation is from p. 332 of the latter. Among those supporting the 'standard thesis' are: Scheffler, I. *Language of Education* (Springfield, Illinois: C. C. Thomas, 1960); Hirst, P. H. and Peters, R. S. *The Logic of Education* (London: Routledge and Kegan Paul, 1970); Hirst, P. H. "What is Teaching", in Peters, R. S. (ed.) *Philosophy of Education* (Oxford: University Press, 1973), pp. 163-177; Mitchell, F. W. "Some notes on the Concept of Teaching", *The Journal of Teacher Education*, 17, 1966, pp. 162-171; Crittenden, B. S. "Teaching, Educating and Indoctrinating", *Educational Theory*, 18, 1963, pp. 237-252.
27. Smith, B. O. "A Concept of Teaching" in Bandman, B. and Guttchen, R. S. op. cit. p. 5.
28. Smith, B. O. op. cit. p. 7.
29. Ibid. p. 8.
30. Aschner, M. J. McCue, "Teaching, Learning and Mr Gowin," *Studies in Philosophy and Education*, 2, 1961-63, p. 198. Gowin, in the article referred to in Aschner, neatly tabulates each stage of Smith's comparison of the selling/buying - teaching/learning analogy. See Gowin, D. B. "Teaching, Learning and Thirdness", *Studies in Education and Philosophy*, 1, 1960-61, pp. 87-113; the tabulation occurs on p. 97. In Smith, op. cit. in Bandman and Guttchen, the points are made on pp. 8-9.
31. Smith, B. O. op. cit., p. 9.
32. Berger, M. I. "Doing things with the concept of teaching," *Philosophy of Education* 1968 (Proceedings of the 24th annual meeting of the Philosophy of Education Society) (Edwardsville, Illinois: Studies in Philosophy and Education, 1968), p. 142.
33. Ryle, G. *The Concept of Mind*, p. 152.
34. Gowin, D. B. "Teaching, Learning and Thirdness, Revisited", *Studies in Philosophy and Education*, 2, 1961-63, pp. 287-298.
35. Ryle, G. op. cit., pp. 141-153 *passim*. A vital point in the present context, as we shall see.
36. Ryle, G. op. cit., p. 150-151.
37. Smith, B. O. op. cit., in Bandman and Guttchen, p. 7.
38. Of course, teachers may fail to produce learning because they failed to teach. Furthermore, it should be noted in passing that the intention to bring about learning covers more than a bare intention. To properly function as a teaching intention an intention must also extend to the selection of appropriate materials and formats, etc. See Crittenden, B. S. "Teaching, Educating and Indoctrinating," pp. 238-240.
39. On this point see Dietl, P. op. cit., pp. 2-5. On p. 3 Dietl notes: "... Smith felt forced to deny the logical relation (between teaching and learning) in order to make sense of the causal."
40. Smith, B. O. op. cit. in Bandman and Guttchen, pp. 10 and 14 respectively (my emphasis.)
41. On these points see Green, T. F. *The Activities of Teaching*, pp. 141-142., also Gowin, D. B. "Teaching, Learning and Thirdness", pp. 100-102.
42. Green, T. F. *The Activities of Teaching*, p. 143.
43. Ibid. p. 144. See above note 11 and text for full citation of this passage.
44. See Green's "Teaching, Acting and Behaving", in Scheffler, I. (ed.) *Philosophy of Education* (Boston: Allyn and Bacon), 1966, pp. 115-135. Also *The Activities of Teaching* p. 28.

45. Green, T. F. "A Topology of the Teaching Concept," *Studies in Philosophy and Education*, 3, 1963-65, pp. 284-319; the passage occurs on p. 286.
46. See *The Activities of Teaching* pp. 140 ff.
47. *The Activities of Teaching*, p. 142.
48. *Ibid.* p. 140.
49. *Ibid.* p. 140.
50. *Ibid.* p. 141.
51. *Ibid.* p. 141. See also p. 140.
52. *Ibid.* p. 140.
53. *Ibid.* p. 118.
54. Green spells out his account in detail on pp. 107-118 of *The Activities of Teaching*.
55. *Ibid.* pp. 142-144.
56. *Ibid.* p. 143.
57. Dietl, P. "Teaching, Learning and Knowing", p. 3.
58. Green, T. F. *The Activities of Teaching*, p. 141.
59. *Ibid.* p. 141.
60. In this connection a glance at the teaching expressions collected by some of the analysts themselves is instructive. See e.g. Smith, B. O. "A Concept of Teaching", in Komisar, B. P., *Teaching: Act and Enterprise*.
61. See Martin, W. O. "A Phenomenological Analysis of the Teaching-Learning Activity", *Philosophy of Education 1966* (Proceedings of the 22nd annual conference of the Philosophy of Education Society), (Edwardsville, Illinois: Studies in Philosophy and Education, 1966) pp. 82-86.
62. Similar comments could be made about many other analytic versions of the 'standard view', e.g. Scheffler, Hirst, Peters.
63. On the question of philosophical method with particular reference to this area of inquiry see: Guzie, T. *The Analogy of Learning* (New York: Sheed and Ward, 1960), chapter 1. See also: Henle, R. J. *Method in Metaphysics* (Milwaukee: Marquette University Press, 1951); Aquinas, *In Boeth. De Trinitate*, V, 1c and VI, 1c.
64. Augustine, *De Magistro*, pp. 49-50.
65. See *De Veritate* Q XI, a. 1.
66. For such a commentary see Wade, F. C. "St Thomas Aquinas and Teaching", in Gallagher, D. (ed.) *Some Philosophers on Education* (Milwaukee: Marquette University Press, 1956), pp. 67-85; Johnston, H. *A Philosophy of Education* (New York: McGraw-Hill, 1963), chapter 7; Mayer, M. H. *The Philosophy of Teaching of St Thomas Aquinas* (Milwaukee: Bruce, 1929). Such works may be seen in proper perspective if read in conjunction with Guzie's essay on Thomistic scholarship in this area. See Guzie, T. "St Thomas and Learning Theory", *New Scholasticism*, 34, 1960, pp. 275-296.
67. Aquinas. *In IX Met.* 1.4 n. 1818; *De Pot.* 3, 13; *Comp. Theol.* 1, 96.
68. Aquinas. *In V Met.* 1, n. 751. For a detailed treatment of causation, with the emphasis on efficiency, see Meehan, F. X. *Efficient Causality in Aristotle and St Thomas* (Washington D. C.: Catholic University of America Press, 1940).
69. On these points see Joly, R. P. *The Human Person in a Philosophy of Education* pp. 72-73; Slavin, R. J. "The Thomistic Concept of Education" in Brennan, R. E. *Essays in Thomism* (New York: Sheed and Ward, 1942) pp. 313-331.
70. For a detailed treatment of instrumental causality see e.g. Albertson, J. S. "Instrumental Causality in St Thomas", *The New Scholasticism*, 28, 1954, pp. 409-435; detailed references to Aquinas will be found in this paper.

71. Dupuis, A. M. and Nordberg, R. B. *Philosophy and Education: A Total View* (Milwaukee: Marquette University Press, 1968), p. 35.
72. In treating 'learning' and 'coming to know' as virtually synonymous no attempt is being made to equate knowing and learning; rather is it being suggested that the process of coming to know is what learning is all about. Further, while the argument is confined to high-level cognitive learning, it should be remembered that 'learning', like 'knowing', is an analogous term encompassing an array of meanings which centre on a hard core of meaning. With suitable analogical adjustments the points made may be extended throughout the analogy of learning. For a full treatment of the analogy and its complexities see Guzie, T. *The Analogy of Learning* (New York: Sheed and Ward, 1960).
73. Aquinas. *De Ver.* q. X, a. 6, ad 7.
74. Maréchal, J. *Le Point de Départ de la Métaphysique, Cahier V* (Louvain: Museum Lessianum, 1926), p. 135. See also the text cited by Maréchal in this connection: *S. T.* III q. 62, a. 1 ad 2.
75. Aquinas. *De Ver.* Q XI, a. 1c.
76. Guzie, T. *op. cit.*, p. 185.
77. The metaphysics of the teacher's inability to elicit the acts of learning directly rests on the distinction between active completed potency and passive potency. In the case of the former, into which category the power of knowledge falls, Aquinas remarks that the principal has "... sufficient power to flow into perfect act" and "... the external agent acts only by helping the internal agent and providing it with the means by which it can enter into act." (*De Ver.* q XI, a. 1 c.) The teacher's exclusion from direct control of another's learning is, thus, ultimately rooted in the ramifications of the metaphysics of potency and act.
78. *De Ver.* q XI, a. 1 c. Also see *In Boethius De Trinitate*, VI, 1 c.
79. Martin, W. O. "A Phenomenological Analysis of The Teaching-Learning Activity", p. 86. See also: Wade, F. C. "St Thomas and Teaching", p. 84; Gilson, E. "The Eminence of Teaching" in Pegis, A. C. (ed.) *A Gilson Reader* (New York: Doubleday, 1967), pp. 300-309.
80. Such faulty teaching, indeed, might easily find its way into the category of indoctrination, depending on the degree and extent of the negligence, as well as on the teacher's intentions. If the negligence is culpable negligence of a fairly positive sort, with the teacher aware of the faults but indifferent to them, then the line between this and indoctrination is very hazy indeed.
81. Donohue, J. W. *St Thomas Aquinas and Education*, p. 85.