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THE CAUSAL LINK BETWEEN TEACHING AND LEARNING: SOME METAPHYSICAL, ETHICAL AND POLITICAL CONSIDERATIONS

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Abstract: This article argues that whether we maintain that there is, or is not a causal link between teaching and learning has very important implications on both what we determine and how we identify as relevant, pertinent ethical considerations of responsibility and accountability for learners and teachers involved in the educational process. Much reflection on the relation between teaching and learning today, however, unfolds in the wake of the Humean critique of causality, denying any real causal link or 'necessary connection' between teaching and learning. This article explains firstly the application of the Humean critique to the analysis of the relation of teaching and learning and elaborates on some implications of this way of looking at teaching and learning. Against this Humean way of understanding and analysing the relation of teaching and learning, the article argues for the view that there is a causal link between teaching and learning, but it stresses the complexity of that causality and the need for drawing a distinction between principal and instrumental-secondary causality, a distinction that is found in the writings of St Thomas Aquinas and elaborated by H. C. McCauley. The activities of teaching and learning do not, however, unfold outside of the society in which and of which they are an integral part. Thus the final section of this article provides an evaluation of the analysis of teaching and learning, raising some questions about the way power is organised in society and its critical role in understanding the relation between teaching and learning.

I
INTRODUCTION

The need for human beings to educate their young and each other throughout life is both a salient and a pervasive fact of human life, whether such education is conducted inside or outside of formal educational establishments, inside or outside the home, the classroom, the lecture-theatre, the playing field, the laboratory, the library, the church, the club and so forth. Each and every one of us are taught, from cradle to grave, to see things in certain ways, and education is extolled precisely for that very fact or dimension — that it teaches us to see things in certain ways. Perception, however sophisticated or simple it may be, is something that is taught. This is a fact of human experience. So, too, however, is the way we see the relation between teaching and learning — this, too, is something that is taught. Part of any discussion of education and its operation, then, is the way we perceive and understand (implicitly or explicitly) the relation between teaching and learning precisely because it is generally accepted and generally regarded that one of the main purposes in education is that the learner learns what is presented by the teacher for

the learner to know (however disputed the priority of the teacher's role in this process may be, and in whatever format such education takes place, and however ideologically driven, or hermeneutically configured, or economically motivated such educational activities and industry may be).

We, both teachers and learners alike, all know from experience, however, that sometimes the teacher presents the material and the desired learning outcomes are not reached by the pupil. If teaching really did guarantee, or warrant successful learning, this could not and would not happen; as a matter of fact, alas, it does. Also, one can learn things for oneself, without being actually taught what one learns, without the aid of a teacher. In light of these considerations, it is tempting to conclude, as many critics of formal education do today, that there is no real, inherent causal link in the teaching and learning relationship between what a teacher does and what a pupil does where either the activity of teaching implies the activity of learning or the success of learning implies that one has been taught. What is more true to say of this relation, so it is argued, is that teaching and learning are essentially distinct and discreet and unrelated activities, each with their own respective and separate characteristic features, purposes and goals.[1]

This way of looking at and approaching the nature of the activities of teaching and learning is, however, a relatively new view of the activities of teaching and learning in the history of the philosophy of education, gaining widespread support among certain philosophers of education in the middle-half of the twentieth century and eventually becoming known in the late 1960s as the 'Standard Thesis' on teaching and learning.[2] The central philosophical tenet supporting this 'Standard Thesis' on teaching and learning is that no matter how much one would like to believe that there is a causal link between what a teacher does and what a learner does, one will be hard-pressed to find, in reality, any discernible, or inherent, necessary connection between the activities of teaching and the activities of learning. This is the topic of this article, and its importance will be elaborated upon shortly, but one might be stalled from the outset for drawing *any* significant attention to this issue precisely because mention of the inability to find any 'necessary connection' between what a teacher in fact does and the effect that this has on a pupil's learning would not, of course, surprise many, in particular the

[1] For two well-known defences of this view, see, B. O. Smith, 'A Concept of Teaching', in *Philosophical Essays on Teaching*, ed. by B. Bandman and R. S. Guttchen (New York: Lippincott, 1969), pp. 3–20 and T. F. Green, *The Activities of Teaching* (New York: McGraw-Hill, 1971). See, also, Green's, 'Topology of the Teaching Concept', in Bandman and Guttchen, eds, pp. 34–65. For these references and those in the following note, I am indebted to H. C. McCauley, 'The Teaching–Learning Relationship: A Thomist Perspective on the "Standard Thesis"', in *Philosophy and Totality*, ed. by James McEvoy (Belfast: Queen's University of Belfast, 1977), pp. 63–89.

[2] See, B. Paul Komisar, 'Teaching: Act and Enterprise', *Studies in Philosophy and Education*, 6 (1967–68), 168–193. The philosophers of education that expound the 'Standard Thesis' mainly come from the analytic tradition in philosophy. For a defender of this approach, see, I. Scheffler, ed., *Philosophy and Education* (Boston: Allyn and Bacon, 2nd edn, 1966), p. 4, and S. Dinn, 'Recent Trends in Educational Philosophy', *Jewish Education*, 37 (1967), p. 105. In addition to Smith, Green, and Schleffler well-known supporters are: P. H. Hirst, R. S. Peters, F. W. Mitchell, and B. S. Crittenden. See, McCauley, p. 87, n. 26. For a review of this topic and related issues, see, Paul Diels, 'Teaching, Learning and Knowing', *Educational Philosophy and Theory*, 5 (1973), pp. 1–25. Not all analytic philosophers of education, of course, support this thesis, or support it completely, but, a considerable amount of them do, as McCauley notes. Komisar himself opposes it. See, McCauley, p. 86, nos. 5, 13, 17.

followers of David Hume. According to Hume's famous critique, there is no necessary connection between a cause and its effect in any 'matters of fact' that we may think are conjoined.[3] Cashed into the analysis of the relation between what a teacher does and what a learner does, this means that there is no real, inherent, causal connection between teaching and learning, just as the 'Standard Thesis' maintains. To corroborate this thesis, we can appeal to the empirical facts themselves, as intimated above, that one can teach, but the student does not learn, and that one can learn for one's self, and thus without being taught, through the application and industry of one's own inventiveness and intelligence.

This way of understanding the causal link, or, perhaps more precisely stated, the missing causal link in the teaching-learning relationship, does have major implications and bearing on the evaluation process of what constitutes good teaching and good learning. For example, if this way of looking at teaching and learning is correct, then it makes perfect sense for both the providers and the assessors of educational practice to focus on teaching and learning as discreet activities. In contemporary parlance, we find this approach articulated in the directive of the Bologna Agreement (1999) (and its engine the Bologna Process)[4] to those in charge of Universities within the European Union, to distinguish 'teaching objectives' from 'student learning outcomes', and to approach and evaluate the devising of syllabi and assessment procedures and the activities of teaching in terms of the 'learning outcomes' of the student that are distinguishable as such, independently of teaching, and that are identifiable, definable, empirically analysable and achievable activities.[5] Viewed in this light, the ethical exigency that impresses itself upon those in charge of the effective management of higher educational institutions is to secure the conditions best that befit, on the one hand, excellence in teaching and in research for teachers and, on the other hand, excellence in learning activities and in the achievability of learning outcomes for students. Such an approach, it is believed, will enable each of these activities of teaching and learning to progress simultaneously, and with the greatest degree of mobility across educational institutions in Europe, but, nonetheless, co-incidentally in the educational market-place.

Examining and assessing the operations either of the teaching of a teacher or of the learning of a learner, as discrete activities in themselves with their own characteristic features, goals, and levels of success, is, of course, a legitimate educational concern, and important insights both into the nature of teaching and into the nature of learning may well be garnished in this way; this, however, should not obviate the point that this approach can *only* yield insight into certain features of teaching and of learning, not insight into the relation *between* teaching and learning.

[3] See, David Hume, *A Treatise of Human Nature*, Book I, Part III, Section xiv Of the Idea of Necessary Connexion, ed. by L. A. Selbe-Bigge (Oxford: Clarendon, 1888; 1967), pp. 155–172; first pub. in 1739. An on-line edited version by Jonathan Bennett of this classic text, that renders it more readable in contemporary English idiom while leaving in tact the main arguments, doctrines and lines of thought, is available from his excellent website: http://www.earlymoderntexts.com/f_hume.html.

[4] See, http://www.bologna.ie.

[5] It is also a pivotal contention of this view that adopting a 'student-centred' approach, one that is focused on learning outcomes and the competences that can be acquired in a defined workload of a student undertaking a programme of study, plays a key role in quality assurance of the learning process.

One major problem with this way of looking at both teaching and learning, therefore, is that it cannot account for or explain the relationship that actually does occur between teaching *and* learning precisely because this very relation is being evaded and not addressed by the holders of the 'Standard Thesis'. Maintaining that there is no metaphysical necessity operative in any alleged connectivity between the activities of teaching and of learning, whereupon teaching *must* produce learning in the learner is one thing, but it does not follow from this that there is no causal link of any sort between teaching and learning, or that teaching and learning are, in principle, distinct and essentially unrelated activities. If there is a causal link which 'the Standard Thesis' cannot account for between teaching and learning, and to which Hume's general critique of efficient causality does not apply, then those subscribing to the 'Standard Thesis' may well find themselves deficient in their understanding of the precise nature and proper dimensions of the relation that really exists between teaching and learning. And misunderstanding the nature of the relation of teaching to learning and of learning to teaching metaphysically could have the baleful consequence for the assessors of such educational activity of mis-construing and mis-identifying, or mis-targeting or applying inappropriately, or missing altogether ethical considerations relevant to the assessment of the responsibilities of both teacher(s) and learner(s) who are involved in the educational process (whether such is conducted at primary, post-primary or tertiary levels). In other words, the 'Standard Thesis' may not be as reliable a guide and standard that it purports and promises to be, both in the understanding and in the ethical evaluation of the relationship that actually does exist between teaching and learning; or, at least, so shall I argue in the first part of this paper.

Misunderstanding the nature of the relation of teaching and learning, nevertheless, does not call for a rejection of any further reflection on that relation. On the contrary, it calls for a proper understanding of the nature of that relationship. Yet the misunderstanding of the relation between teaching and learning has to be understood before a replacement can be sought and desired. Thus the first task of this paper is to draw attention to and outline, briefly, the philosophical support and significance of Hume's critique of the denial of any real, discernible causal link in any cause and its (alledged) effect on the way we look at the relation between teaching and learning that is implicit in the basis of the 'Standard Thesis'.

It is no doubt true to say that much reflection on the concept of causality today unfurls in the wake of a Humean-inspired critique of efficient causality, so this cannot be side-stepped. Against this way of understanding teaching and learning, however, that *there is* a causal link between teaching and learning will be put forward below (in section III), but it stresses the complexity of that causality and the need for a distinction between principal and instrumental-secondary causality, a distinction that is found in the writings of Thomas Aquinas, and one that has been applied and worked-through in H. C. M'Cauley's article, 'The Teaching-Learning Relationship: A Thomist Perspective on the "Standard Thesis"'.[6] Since how we understand the nature of teaching and learning has a direct bearing on how we understand and identify the duties and responsibilities of both teacher and learner, this section also elaborates on some important ethical considerations in

[6] See, *supra*, n. 1.

McCauley's account, but which are omitted by those holding the 'Standard Thesis'. The activities of teaching and learning, of course, do not unfold outside of the society in which and of which they are an integral part. This holds whether the activities of teaching and learning are conducted formally or informally inside or outside classrooms or homes, lecture theatres or parks, churches or pubs. Thus the final section of this paper looks at and sketches an evaluation of the activities of teaching and learning in relation to some pertinent political questions regarding social existence underpinning the activities of teaching and learning, with particular reference to the way power is organised and its critical role in understanding the relation between teaching and learning.

II
The Limits of the Application of Hume's Critique of Efficient Causality to the Teaching-Learning Relationship

Before Hume elaborated his critique of causality, the concept of causality had a noble, if not a venerable status in the history of philosophy. From its earliest beginnings in the ancient Greek-speaking world, thinkers sought for a principle that would explain the origin of the existence of the world by searching for an ultimate 'cause' of things that are. At first, they sought a material cause (Thales and the Ionian school), then a formal cause (Pythagoreans). Efficient and final causes were also somewhat distinguished by the pluralists (Empedocles and Anaxagoras). With Plato this search, remarkably, took a decidedly moral orientation. In light of his experiences of what had happened, unjustly, to his mentor Socrates, Plato sought 'the Good' that would explain that the way things are the way they ought to be. Thus Plato argued that in any organisation of matters pertaining to human relationships between each other and with each other and with anything that is, such matters are to be organised in the way they are with regard to the causal power of the form of the Good. An education in politics and the politics of education were never that far from an education in philosophy and the philosophy of education for someone like Plato.[7] We could sum up Plato's view, then, by saying that in the exercise of practical reason justice without goodness is blind, goodness without justice, empty.

This fundamental search for the cause of things that are and ought to be, however, came under sharp attack in the writings of Hume, but not, of course, without significant developments by other critics of the concept of cause before him.[8] It is in the wake of that amiable Scot's demolition of the traditional concept of causality, nevertheless, that modern philosophers addressing the topic of the causal relationship between teaching and learning conduct their analyses and reflections. Thus it is of importance to understand Hume's general critique of efficient causality

[7] See, Plato's famous, *Republic*, written 360 B.C.E.

[8] For a most readable account of a host of central European ideas, including causality, and their development from their roots in Ancient Greece and the ancient Greek-speaking world, through the Middle ages and modern philosophy, up to and including their status in contemporary philosophy, see, Erik Lund, Mogens Pihl and Johannes Sløk, *A History of European Ideas*, trans. by W. Glenn Jones (London: Hurst, 1971). For a specific account of the changes to the concept and doctrine of causality in the modern period, see, Kenneth Clatterbaugh, *The Causation Debate in Modern Philosophy 1637–1739* (London: Routledge, 1999).

and the parts of that critique most relevant to the evaluation of the philosophical assumptions underpinning the 'Standard Thesis' on teaching and learning.

Hume pinned his colours to that tradition of philosophy which, in his eyes, made the most sense, namely, empiricism. Thus Hume held the conviction that all knowledge-claims, worth their salt, must be, in some sense, rooted in experience. While Hume never doubted that we can have knowledge of things that are necessarily true, such as, for instance, mathematical knowledge-claims ('all triangles are three-sided figures') and logical-analytical knowledge-claims ('all bachelors are unmarried men') such knowledge-claims, as Hume also pointed out, tell us absolutely nothing of significance about the real world. On the other hand, knowledge-claims pertaining to 'matters of fact,' such as, for instance, I turned the key in the ignition of my car and the car started, do tell us something about the real world and are highly significant knowledge-claims about the real world. These knowledge-claims, however, are never necessarily true. I turn the key in the ignition of my car and this time, alas, the car, as a 'matter of fact', does not start. That the car failed to start does not cancel the truth of my original belief that I turned the key and my car started before, nor does it cancel the truth of the fact that my car does not start because I know it is true that the car did not start; rather, this is simply the way such knowledge-claims pertaining to 'matters fact' are. Matters of fact, when true, are never necessarily true. This is the way we come to know anything of real significance about the real world around us.

When the initial understanding of the truth of the 'matter of fact' that we originally held breaks down, explanation is called upon and steps in. 'Why does the car that started a few hours ago not start now?' Perhaps I left the lights on, and the battery in my car is flat; or, perhaps, the ignition motor is faulty; or, maybe, the key has got damaged. Whatever the cause of my car not starting after I turn the key, my initial knowledge of starting the car with the key, derived as it is from experience, is simply not the kind of knowledge-claim that can be necessarily true in the way in which knowledge-claims such as 'all triangles are three-sided figures' and 'all bachelors are unmarried men', when true, are necessarily true (but insignificant). Perhaps an experienced car mechanic would know. And, then, perhaps that mechanic might not. That mechanic, after all, has to go on that mechanic's experiences of 'matters of fact', no differently to anyone of us non-experts in car mechanical maintenance.

We do know, nevertheless, as Hume argues, why knowledge-claims that are necessarily true *are true*. They are analytically true. That is to say, if we know the meaning of the idea of 'triangle' and of the idea of 'a three-sided figure', then we know that it is necessarily true that 'all triangles are three-sided figures'. Likewise, if we know the meaning of the idea of 'bachelor' and of 'unmarried man', we know that it is necessarily true that 'all bachelors are unmarried men', and so forth. Thus Hume concedes that we can and do have knowledge-claims that are both necessarily true and legitimate knowledge-claims concerning 'relations of ideas' (as Hume calls them); such necessarily true, analytic knowledge-claims, however, cannot, as Hume also points out, tell us anything of significance about real world about us pertaining to 'matters of fact'.

If we follow Hume, then we do know how to account for and to justify the epistemic status of knowledge-claims regarding 'relation of ideas'. Such knowledge-claims are derived analytically from the ideas themselves and their logical meaning, no more, no less: the idea of bachelor implies the idea of an unmarried man, and

the idea of an unmarried man implies the idea of a bachelor. But how are we to account for and justify the arrival of our knowledge-claims pertaining to 'matters of fact' that are never necessarily true, such as, for instance, my true belief in the car starting, when it starts, after I turn the key in the ignition? This is the kind of question that Hume himself raised, and the answer that he gave is as difficult to accept in its entirety as it is to refute in any of its aspects.

According to Hume, the only way we can reasonably set about to address this question of how do we come to know the truth of anything pertaining to any 'matter of fact' is by adverting to and noting the way the human mind itself works.[9] And the way the human mind works, he notes, is by associating, over time and through experience, the idea of putting the key in the ignition of the car and the car starting. We link the two empirical ideas together in our mind (like seeing fires and smoke rising from them and then drawing the inference 'there is no smoke without fire'). Here, then, there is no necessary connection being affirmed at all about the key *and* the car starting, only a habitual, mental association of ideas, built up from sense-impressions and through our imagination, that are derived from experience over a succession of time.[10] This is where our idea of cause and effect comes from. This is the way the mind actually works. This is a psychological fact of our mental life, if you wish. While such knowledge-claims of 'cause and effect' from a psychological point of view are, therefore, *unavoidable*, such knowledge-claims from an epistemological point of view are, however, *unjustifiable*. We simply cannot claim to know that the car starts *because* I turned the key. There is nothing in my mental association of the ideas of putting the key into the ignition and the car starting over time that guarantees, or warrants, or necessitates that the car starts. I turn the key and, lo and behold, the car, as a matter of fact, does not start. And this holds for all knowledge-claims pertaining to each and any item of knowledge that is claimed to be true as a 'matter of fact'. No matter how many times we see fire followed by smoke, and see smoke and then fire, we cannot know (*a priori*) that there is 'no smoke without fire' — we burn anthracite, there is fire and no smoke. From this, Hume drew the conclusion that there is *no* inherent necessity in things given to our sensible experiences to be causally connected in themselves in the way in which we assume they are, *nor* is there any inherent necessity in the way those things given to our experience are known by us (in the connections made by our imagination). And this we all know from experience and this is verifiable through and in reflections on

[9] In the 'Introduction' to *A Treatise of Human Nature*, Hume writes, '(T)here is no question of importance, whose decision is not compriz'd in the science of man; and there is none, which can be decided with any certainty, before we become acquainted with that science. In pretending therefore to explain the principles of human nature, we in effect propose a complete system of the sciences, built on a foundation almost entirely new, and the only one upon which they can stand with any security.' *A Treatise*, p. xx. Cf., the whole passage, pp. xix–xx. As one commentator rhetorically intimates, '(W)hat is this but a Scottish version of Kant's Copernican Revolution?' H. H. Price, *Hume's Theory of the External World* (Oxford: Oxford University Press, 1st edn, 1940; 1967), p. 9.

[10] The role of 'the imagination', over and beyond sense, both for the operations of memory as well as generating knowledge-claims about the external world, is, as Price argues, 'even more fundamental in Hume's theory of knowledge than he himself admits' (p. 8.). Our understanding and valuation of the 'imagination' ('*imago*', *'imaginatio'*, '*phantasia*', '*phantasmata*'), however, undergoes major development from Plato and the ancient Greeks, through medieval and modern thinkers, up to and including postmodern epochs, and thus contains several meanings. For the importance of imagination for both teacher and student, see Pádraig Hogan, *The New Significance of Learning: Imagination's Heartwork* (London & New York: Routledge, 2010), esp. Ch. 5 'Opening Delphi', pp. 68–80.

the nature of our own human minds. All of this is rooted in experience. We all know that when we turn the key, and the car starts, we are delighted in the truth of this matter of fact; but we also all know that the next time we put the key in the ignition of a car, even in a new car, there is lurking in the back of one's mind the (implicit) knowledge that this car may not necessarily start when I turn the key. And if it does not start, we experience other emotions, such as, for instance, disappointment or frustration. And we might even project some of our views and feelings onto the car itself and declare 'the stupid car won't start'.[11]

From the above considerations, important consequences for the traditional concept of cause, for Hume, follow. If there is no necessary connection with any alleged cause and its consequent effect (either objectively in nature or psychologically in the human mind's make-up), then there is no justification in asserting any inherent necessary connection in any of the activities that flow from any (allegedly) material, formal or final-purposeful causes that we *think* are discernible in the nature of things themselves, or that we *think* are discernible in the nature of relations between things themselves as we actually come to know them as 'matters of fact' (and as we assume, in truth, them to be) — thus the depth-dimension of Hume's radical and devastating critique of the traditional concept of 'causality'.[12]

If we are taught by Hume to look at things in this manner, and I suggest that we are for perception is taught — indeed, Hume's teaching on this matter famously woke up Kant from his dogmatic slumber — and if we apply this way of looking at things to our experiences of the relation between teaching and learning, we can readily see the profound implications for the defence of any proponent of 'inherent connection' that appears to exist in terms of 'cause and effect' in any relation between the activities of teaching and the activities of learning. There is none. There is no epistemic justification for any belief in any inherent connection between the activity of teaching and the activity of learning, however much we would like to *think* there is. And this is because there never was, nor ever will be any direct, necessary causal link between one 'matter of fact' activity and the other 'matter of fact' activity that subsequently follows.

If Hume is correct both in his account and in his general critique of cause and effect, then one would be hard-pressed to counter the supporters of the 'Standard Thesis' in their application of this celebrated critique to the activities of teaching and learning and to challenge, seriously, their followers' general position that these activities, as matters of fact, are better understood and evaluated as separate and discreet activities.

[11] 'There is a very remarkable inclination in human nature to bestow on external objects the same emotions which it observes in itself; and to find everywhere those ideas which are most present to it. This inclination, 'tis true, is suppressed by a little reflection, and only takes place in children, poets and the ancient philosophers. It appears in children by their desire of beating the stones, which hurt them: In poets, by their readiness to personify every thing: And in the ancient philosophers, by these fictions of sympathy and antipathy. We must pardon children because of their age; poets, because they profess to follow implicitly the suggestions of their fancy: But what excuse shall we find to justify our philosophers in so signal a weakness?' Hume, *A Treatise*, p. 224–225.

[12] In the section on 'Of the Idea of Necessary Connexion', Hume is fully aware of these implications for 'both ancient and modern [Cartesian-Lockean] philosophers' (ibid., p. 156) and for 'that distinction, which we sometimes make [...] betwixt efficient causes, formal, and material, and exemplary, and final causes' (ibid., p. 171).

If Hume is incorrect, however, then it becomes incumbent on those educators who would like to argue for the position that there is some inherent, valuable and purposeful connection between what they do and the learner's learning, to refute, or at least, to challenge Hume's analysis and its dominant influence in monopolizing the way the relation between teaching and learning is approached in the 'Standard Thesis' on teaching and learning.

There are also, as noted above, ethical dimensions to this debate that need to be mentioned precisely because the way we understand, from a metaphysical point of view, the nature of the causal link (or the missing causal link) between teaching and learning has a direct bearing on how we identify, understand and evaluate relevant and pertinent expectations of responsibility and accountability for both learner(s) and teacher(s) in the educational process. Thus 'the Standard Thesis' cannot go unchallenged for both metaphysical and ethical reasons, nor can it be uncritically adopted, however implicitly, either by those engaged in the practice of teaching or by those charged with the effective care of students and the careful management of the provision of education.

There are several lines of attack that we could deploy to combat the claim expounded by the holders of the 'Standard Thesis' that there is no necessary connection between teaching and learning. One way could be to point to the fact that the very experience of education itself, the experience of being taught, clearly makes some significant impact on the receivers of education — whatever the quality of the educational experience. In this instance, some inherent relation between teaching and learning must exist. Indeed, it is precisely because of this indubitable empirical matter of fact that John Dewey, one of the foremost and most influential philosophers of education of the twentieth century, called upon teachers of philosophy themselves to take more note of the educational dimensions of their work.[13] No teacher of any subject, especially teachers of philosophy, so Dewey argued, should be remiss in their reflections on the link that does exist between what they teach and what the student learns and the significance of that educational experience (again, setting aside any evaluation of the quality of that experience). But where is this link to be found? How is this link established? Pointing to the facts of experience and asserting that there is a link does not explain what that link is, or how that link is established. We can, after all, point to the fact that teaching can occur but the student does not learn. After Hume, we know where that link cannot be found. It cannot be posited in any inherent, objective metaphysical necessity anchoring together the activity of teaching and the activity of learning. Nor can this relation be posited as an *a priori* analytical truth concerning 'the relation of ideas' that exists between 'teaching and learning', without it becoming entirely insignificant, for, if it is logically the case that 'teaching implies learning', such a view tells us nothing about the real world of teaching and learning. If there is a real connection between teaching and learning, then some other way of understanding the link between teaching and learning — which is not ascertained either through the logical analysis of the meaning of the ideas of 'teaching' and 'learning' or through the habitual, psychological-mental association of adventitious ideas arising from reflection on the activities of teaching and learning separately — has to be

[13] See, John Dewey, *Democracy and Education* (New York: Macmillian, repnt, 1961), p. 328; first pub. in 1916.

found. And it has to be found and discernible in the nature of the experience and reality of the relation between teaching and learning itself.

This, in effect, was what Dewey tried to do by appealing to the analogy: buying is to selling as teaching is to learning in order to draw attention to the intrinsic connectedness of the experience of teaching and learning, and this to be taken into consideration by teachers.[14] Nothing can be bought, as a matter of fact, without something being sold. And if something is sold, then buying, as a matter of fact, has occurred. Similarly it can be surmised, no teaching has occurred unless some learning has occurred in a teaching–learning experience, and correlatively, no learning has occurred unless some teaching had occurred in a teaching–learning relationship.[15] Teaching implies learning and learning implies teaching, not as a logical necessity, but in an analogous fashion to the way in which buying implies selling and selling implies buying in the exchange between seller and buyer.[16] While this view has the merit of not making the teaching of a teacher so metaphysically constituted as *to cause* learning in the learner's learning — teaching and learning are taken as different activities with each having its own separate integrity but necessarily co-existing analogous to buying and selling — this analogy, alas, breaks down in light of the facts of teaching and learning. Sometimes the teacher presents material (sells) and the learner does not learn successfully (buy). And the learner can learn things through the application and exercise of one's own intelligence and initiative (buys), without being taught (being sold) what one learns. Thus the analogy buying is to selling as teaching is to learning must ignore (or rationalize) the reality of the fact that one can teach and the learner fails to learn. And if it ignores this fact, this view is ignoring the reality of the kind of relation that does exist between the activities of teaching and the activities of learning.

[14] 'Teaching may be compared to selling commodities. No one can sell unless someone buys. We should ridicule a merchant who said that he sold many goods although no one had bought any. But perhaps there are teachers who think that 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.' John Dewey, *How We Think* (New York: D.C. Heath, 1933), pp. 35–36. This comparison was similarly expressed by William Heard Kilpatrick, one of the central figures in educational thought in the early 1930s besides Dewey, when he remarks that just as '(T)he salesman hasn't sold unless the customer buys. [So, too,] The teacher hasn't taught unless the child learns. I believe in the proportion: teaching : learning : : selling : buying.' W. H. Kilpatrick, *Foundations of Education* (New York: Macmillan, 1935), p. 268. Cited in McCauley, p. 66.

[15] 'Put briefly the Dewey-Kilpatrick view', then, 'states: "Teaching implies learning".' McCauley, p. 66.

[16] There are, of course, other analogies, or models, or proportionalities, or images that maybe more suited to understanding the teaching–learning relationship than buying and selling. For instance, if we wish to draw attention to the generosity of a teacher in the teaching–learning relationship, we may be better disposed to looking at this dimension analogously to close, parent–child relationship. 'Think of the intimacy of family relations: when the parent gives to the child, one is not diminished as the other is augmented; the giving of the one diminishes not the giver as it augments the receiver. Consider the relation of teacher and learner: the one who knows is not diminished by passing on knowledge to one who does not know; knowing is a reserve of richness that is not diminished or spent in being given over to another; the generous sharing of knowing is intimate to the brimming actuality of knowing itself.' William Desmond, *God and the Between* (Oxford: Blackwell, 2008), p. 314. We stand on the shoulders of those who went before us, and this is as true of formal educational advancement as it is of informal educational information, but sometimes it takes a generosity of spirit to see such. There is more than one way at looking at 'exchange' between individuals (and societies) than the one modelled on 'buying and selling'.

To overcome the above problems, we could make this 'analogy' normatively true, that is to say, we could maintain that teaching does not, as a matter of fact, necessarily imply learning but it *should* imply learning. Thus it is only on the basis of successful achievement of the learning outcomes by the student(s) that a teacher, subsequently, should be considered, really, a teacher. Only when the learner learns what is taught is the teacher *really* a teacher, or should be called a teacher. Built into this view, therefore, is 'the notion of learning' as 'a defining characteristic of the notion of teaching, and the occurrence of the former is a *sine qua non* of the latter.'[17] This view, nevertheless, has several difficulties, and if seriously entertained, does lead to somewhat bizarre conclusions. Firstly, as McCauley points out, 'must we wait until after testing the pupils before describing ourselves as having been teaching?'[18] Likewise, 'how are we to account for the situation where a teacher takes a class of ten for the Ablative Absolute and discovers only eight have learned? 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?'[19] And if a teacher attempted to teach 'the Ablative Absolute' and no student in the class actually managed to learn it, are we to conclude that the teacher was not (really) teaching at all?[20] If one seriously believed that teaching *should* imply learning and that learning *proves* that teaching actually occurred, then a teacher really should be remunerated and assessed not in respect of carrying out duties and responsibilities associated with the profession of teaching but in relation to the quota of grades directly produced by that teacher in his or her students.[21] And if this were seriously believed by those who are actually employed in the educational profession (whether at first, second, third or fourth level), most of those employed would probably arrive home with little wage-packets in their pockets, or give back most of their salaries to their respective employers. Thus we can readily concur with Green's remarks (in 1954) that: '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.'[22]

Such dictums or slogans as 'There is no teaching when there is no learning', or 'If there is no learning there is no teaching' are, nonetheless, attractive to those who wish to have, as McCauley puts it, 'a neat formula for judging teacher performance and certification.'[23] Yet, to make the learning of the pupil a defining characteristic of teaching is not only simply unrealistic but it also obscures a proper understanding of both the reality and the experience that teachers and pupils have of any teaching and learning relationship. Sometimes teachers teach and the students simply do not learn or learn as well as expected. Given the fact that teaching does not necessarily imply learning, and that the lack of success on the part

[17] McCauley, p. 66.
[18] Ibid.
[19] Ibid.
[20] For the supporter's of the 'Standard Thesis', 'it makes no sense to say if a student has not learned, the teacher has not taught.' B. O. Smith, 'On the Anatomy of Teaching', in *Readings in the Philosophy of* Education, ed. by J. M. Rich (Belmount, California: Wadsworth, 1966) pp. 331–340 (p. 332). Originally published in *The Journal of Teacher Education*, 7 (1956) 339–346. Cited in McCauley, p. 66.
[21]
[22] H. S. Broudy, *Building a Philosophy of Education* (New Jersey: Prentice-Hall, 1954), p. 14. Cited in McCauley, p. 66.
[23] McCauley, p. 66.

of the learner should not be a defining element in the task of teaching, the best way to approach this relation, so it is concluded, is to maintain that teaching and learning are, in effect, really separate and discrete activities; and so, one falls back onto the 'Standard Thesis' as the only realistic option available. Thus the necessity now follows to separate and specify the appropriate tasks of teaching and of learning. See how people learn and see how people teach. Then generalize from that. Develop teaching skills and research skills among teachers and develop learning skills and achievable learning outcomes for learners by promoting among teachers imitation of the best practice in teaching skills and among learners imitation of best practice in learning skills. Teachers and learners should each be expected to get on with their respective tasks that they can do and for which they can be held accountable and assessed. Teachers and their research objectives can be tallied and assessed. Learners and their learning outcomes can be tallied and assessed too. In this regard, we are not subscribing to any spurious, metaphysical understanding of any allegedly 'causal link' or 'necessary connection' between teaching and learning, nor are we exposing both teacher(s) and pupil(s) to unrealistic expectations or to unfulfillable commitments in a teaching-learning relationship. Thus the 'Standard Thesis' gives us not only a better understanding of teaching and learning but it also supports the best evaluative model for best teaching practice and best learning practice.[24]

While this focus undoubtedly draws attention to the fact that teaching and learning are distinct activities, and that each have their own integrities, this way of analyzing the teaching-learning relation evades, nevertheless, the very issue that it is to suppose to throw light on, namely, the actual relation and the mode of contact between the activities of teaching *and* learning.[25] And by evading this issue it evades, alas, the question of the proper responsibilities of both teacher(s) and learner(s) in that relation because '(U)ltimately', as Green points out, and this is the nub of the matter, '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

[24] There is growing unease regarding the criteria of 'evaluation' (as is called British English) or 'assessment' (as is called in American English) and the 'key performance indicators', which include such things as 'impact' of research, that are being devised and used to judge the quality of teaching in third-level institutions. See, the recently published report by the Research Information Network (http://www.rin.ac.uk/), 'Communicating Knowledge: How and Why UK Researchers Publish and Disseminate their Findings', available on-line from the Joint Information Systems Committe (JISC) at http://www.jisc.ac.uk/publications/documents/communicatingknowledgereport.aspx. This unease is part of wider concerns pertaining to the entire issue of the assessment/ evaluation of both students and teachers at all levels of education and, in particular, at the assumptions concerning the relation between teaching and learning upon which such assessment/ evaluation is based. Indicative of this is the recent 'Call for Papers' from the *Journal of Analytic Teaching and Philosophical Praxis* for their next volume 30, 2010, at Viterbo University, on: 'Theme: Exploring the Philosophical Assumptions of Assessment Culture in Education', http://www.viterbo.edu/atpp/. The issue of evaluating the performance of Universities is also being addressed in Irish Universities. See, the recent report (March, 2009) from the Royal Irish Academy, 'Developing Key Performance Indicators for the Humanities', available from their website under 'Current Initiatives', (http://www.ria.ie/policy/pdfs/humanities.pdf.) and the difficulty with having 'impact' as a criterion in particular for the Humanities. Documents dealing with the evaluation of research performance in Economics and Social Sciences and in other areas of the Universities are also available here.

[25] McCauley, p. 75.

teachers can be held accountable for the results of their efforts'.[26] An alternative way of understanding the relation between teaching and learning that does not impale itself on either horn of the dilemma — that there is no real point of connection between what the teacher does and what the learner does (as advocated in the 'Standard Thesis') and its opponent's view that a student's learning is a defining characteristic of a teacher's teaching — is needed. This is 'crucial', as Green professes, even if his analysis evades this very issue itself; but, it is crucial not only for the purposes of determining the teacher's accountabilities, it is also crucial for determining the responsibilities for both the teacher and the learner in the educational process. Green himself does not supply any such account.[27] It is against the background of this lack in the latter's analysis of the relation between teaching and learning, then, that McCauley turns to St Thomas and to his followers who operate with a much wider and more complex notion of causality that is better equipped and suited to explaining, in the author's view, the precise nature of the link and mode of contact between teacher and pupil in the teaching and learning relationship and the apportioned share of responsibilities of each.[28]

III
The Relation between Teaching and Learning Revisited: A Thomist Perspective

Whatever disagreements among both opponents and proponents of the 'Standard Thesis' regarding the efficient causality, or the lack of efficient causality that is (allegedly) operative between what a teacher does and what a pupil learns, holders of the 'Standard Thesis' agree with their critics on at least one fundamental point that an important goal of education is that the learner learns what is presented by the teacher for the learner to know. What supporters of this thesis fail to do, however, is to give an adequate account of this relation. In order to tackle this issue, we need to take into consideration three distinct but related questions, namely: (1) what is learning, (2) what is teaching?, and (3) how exactly is the activity of learning related to the activity of teaching? These are the three main questions that McCauley sets out to address in his article 'The Teaching-Learning Relationship: A Thomist Perspective on the "Standard Thesis"'. His answer to the third question is of most relevance to our concerns, but we must briefly address the first two questions, as the answer to the third question depends, to a significant degree, on what we understand by 'learning' and 'teaching'.

Turning to the first question, then, what is learning? In many respects, it is difficult to give a precise definition of what learning is because so many different types of learning and different kinds of learning have to be accomplished by each and any one of us, from the cradle to the grave.[29] Learning to walk is quite different

[26] Green, *The Activities of Teaching*, p. 144, cited by McCauley, p. 71.

[27] This can be put down to Green's 'restricted view of causation' (McCauley, p. 75). St Thomas operates with a much richer and complex notion of causality than the one that Hume and post-Humean philosophers attend to, hence the significance of retrieving this particular understanding for advancing understanding of the connection between teaching and learning in McCauley's approach.

[28] See, McCauley, esp. Section IV, pp. 75–84.

[29] And if, as Aristotle famously remarked, 'what we have to learn to do, we learn by doing', then learning cannot be really defined in abstraction from and without regard to the particular practises undertaken.

from learning to play the piano, which is quite different from learning a mathematical formula in physics, such as, $E=MC^2$, which is quite different from learning to interpret a law or a play or the significance of an experience. Learning and its related concepts (e.g., knowing, understanding, etc.) are thus better approached and better understood as analogous terms rather than as terms with fixed univocal or equivocal meanings (as the supporters of St Thomas maintain).[30] That learning evolves around a hard core of meaning pertaining to 'coming to know something' whatever it is that one learns and however one learns, learning is a process of coming to know something that one *did not know* already. One cannot learn something that one already knows. It is thus a defining feature of learning that it involves, as St Thomas stresses, discovery (*inventio*).[31] Learning is a gaining of knowledge by discovery. Using Gilbert Ryle's distinction between 'task' and 'achievement', we can say, with the analytic philosophers and McCauley, that learning is an 'achievement'.[32] In learning, we accomplish something successfully. We cannot be said to have unsuccessfully learned something. We can, of course, not learn something completely, or achieve partial success in learning something. Achievements (such as learning), therefore, are subject so some form of gradation. There will be grades of achievement by the learner in the learning of what is presented by the teacher for the learner to know.[33] And this, as any teacher or student knows, is both to be expected and to be factored into the assessment of a learner's work.

What is teaching? This is the second question that needs to be addressed. Teaching is an activity that involves the presentation of a subject-matter or a body of knowledge to be grasped/ known by the learner. In this regard, teaching is clearly a purposive activity, or, perhaps, it can be more precisely defined as an intentional serial performance conducted by a person (a teacher) or persons (teachers) aimed at eliciting an appropriate learning response in those to whom it is directed.[34] Teaching, in other words, is a 'task', and it involves a process of doing things over time that may, or may not be completed successfully. And it may be performed well, or badly. I can come out of a class and say, 'I really did not teach that well', or, 'I taught that much better this year than I did last year'. Unlike 'achievement' that is necessarily associated with 'learning' and its goal, 'achievement' is not necessarily associated with 'teaching' and its goal. Though a sense of achievement is clearly of importance both to learner and to teacher alike, we can teach, nevertheless, and the student does not learn, but this does not imply that we were not teaching. Nor does it necessarily imply that we were teaching badly, just that the learner did not achieve his or her results (learning outcomes). While we can thus separate learning and teaching in noting that whereas learning is an 'achievement' and teaching is a 'task',

[30] See, T. Guzie, *The Analogy of Learning* (New York: Sheed and Ward, 1960). For a general account of analogy in the writings of St Thomas, see, Ralph McInerny, *The Logic of Analogy: An Interpretation of St Thomas* (Nijhoff: Hague, 1961).

[31] Aquinas, *De Veritate*, Q. XI, a. lc., cited by McCauley, p. 89, n. 75. We can come upon (*in-venire*) such knowledge either by ourselves or through the teaching (*disciplina*) of others. See, Fainche Ryan's article in this collection, 'Teaching to Think: St Thomas as Pedagogue', pp. 93–105, esp., p. 98–99.

[32] See, McCauley, pp. 68–71.

[33] This is accounted for by act and potency as co-determining metaphysical principles applicable to each and any individual knower. See, *infra*, n. 36.

[34] This definition was given to me by Harry McCauley in a conversation that we had about teaching and learning a few years ago, in his office at NUI Maynooth.

there is still a common goal or link in this process between teaching and learning, namely, 'knowledge'. In the learner's case it is the acquisition of knowledge. In the teacher's case, it is the presentation of knowledge. Since knowledge is the link, this necessitates addressing two broader questions: *what is knowledge* and *how is knowledge possible*?

Both of these questions have been raised and answered differently down through the ages and throughout the history of philosophy, from ancient Greek times to medieval, through modern and up to and including contemporary epochs. Though it is true to say that epistemology has taken central stage in modern philosophy with Descartes, Hume and Kant, this does not imply that there are many epistemological insights to be found in respective philosophers of other philosophical epochs. Augustine and Aquinas, for example, have many important insights in epistemological matters, as do the early Greek and Roman stoic philosophers. It is outside the limits of this paper to address such epistemological matters, but, as McCauley summarily remarks, from an Aristotelian-Thomistic point of view, two things are necessary for anything to be known and for knowledge to be possible, namely: (1) the power of knowing and (2) something to be known (something potentially intelligible).[35] Again, the power of knowing, from an Aristotelian-Thomistic point of view, is ultimately co-determined by the metaphysical principles of act and potency in an individual knower-learner.[36] Furthermore, the something that is to be known follows upon a realist conception of knowledge where the knower's first reality is not the knower's own operations. This latter conception characterizes the starting-point of what we could call modern, psycho-analytic theories of knowledge (inaugurated by Descartes and advanced by Locke, Hume, and Kant). By comparison to this psychological starting-point, contact with that which resides outside of the knower's mind, whether that be physical things around us, artefacts, nature understood from a teleological point of view, or the presence of one's own fellow human being, is, for Aristotle and Aquinas, their starting point.[37] These general, realist metaphysical and epistemological assumptions, then, direct (however tacitly or explicitly) reflection on

[35] McCauley, p. 79

[36] This is also why, as McCauley notes, '(T)he teacher's exclusion from direct control of another's learning is, thus, ultimately rooted in the ramifications of the metaphysics of potency and act' (p. 89). See, also, Hogan, for a similar point: 'This means that the relationships of teacher and student are, in principle, less hierarchical than those of [expert] master and disciple. [...] Rather, the student [in a teaching–learning relationship] is acknowledged as a new participant in the venture of learning, whose pathway will in many ways be similar to that of fellow students, but will be hopefully marked by turns and achievements that are particular to the student's own range of promise' (pp. 74–75). One still has to exercise critical judgement regarding which 'potencies' or 'range of promise' of an individual that is to be 'realised'. For a critical perspective on talk about the function of education to realise 'the potential' of students, see Richard Pring's article in this volume, 'What Counts as an Educated 19 Year Old?', pp. 74–82, especially his Section II 'The Language of Education'.

[37] Thus central problematics may figure in one historical epoch but not the other. For instance, the question of bridging the gap between my consciousness and the external world does not and cannot feature in Scholastic Aristotelian-Thomistic Medieval philosophy since sense knowledge of external things is dependent on acts of sensation and sensory contact with external things. (Aristotle, in fact, deploys this as an argument for the corporeality of the sensitive soul in the human being.)

both the activities of teaching and the activities of learning and the relation between teachers and learners for St Thomas and for his followers.[38]

Bearing the abovementioned realist, metaphysical and epistemological assumptions in mind, this brings us to the third and crucial question addressed in McCauley's article, namely: what role does teaching play in this acquisition of knowledge that is characteristic of learning? McCauley argues that since teaching is what presents the subject-matter to be known, and since the student is open to receive that intelligible subject-matter, the activity of teaching is primarily *instrumental* in the learning process.[39] The *goal* of teaching is that the learner comes to know what the learner set out to know. Thus the activity of teaching is sub-ordinate to the activity of learning. The final goal of teaching and learning is that the learner learns for him and her self.[40] The responsibility of learning remains within the learner and the responsibility of teaching remains within the teacher, but the causal relationship between teaching and learning is a complex one. It is not one of direct efficient causation, that is to say, the view that the teacher, through teaching, either implies or produces learning in the learner; rather, the teaching-learning relationship concerns both principal and instrumental-secondary causation working together for the end of the process which is the learner's achievement (the final cause). In this account of the teaching–learning relationship, both teacher(s) and learner(s) retain their ontological distance and integrities as to whom each of them are in that relation. In this account both teacher and learner also retain their specific responsibilities and agencies. The agency of the teacher and the agency of the learner are thus both respected, but they are respected as distinct *and* related agencies. And since whatever we have responsibility for is a matter of morality, herein, respective responsibilities for both teacher and learner can be therein identified and apportioned.

In the agency of the teacher, 'a teaching intention' is not just 'a bare intention' to teach the students, but 'extends to selection of appropriate materials and formats'.[41] The selection of appropriate materials and formats, of course, also need to take into account the appropriate levels of understanding desired and the point of development of the knowledge of students. This selection of appropriate material and formats to the level of understanding desired, nevertheless, are both defining and limiting (material-causal) factors in the process of the students' learning or knowing; that is to say, the material presented and the way in which the material is presented to the learner are essential ingredients of what it is that is learnt

[38] However critical followers of St Thomas's own particular views on teaching and learning may be, they still unfold their reflections from within such a realist metaphysical perspective. See, Simon F. Nolan, 'Teaching and Learning in the *Summa theologiae* of Gerard of Bologna (d. 1317)', in *Maynooth Philosophical Papers* Issue 5 (2008), ed. by Nolan (Maynooth: Department of Philosophy, NUI Maynooth, 2009), pp. 35–41 (published on-line at: http://philosophy.nuim.ie/publications.shtml).

[39] This understanding is based upon an understanding of the Thomistic notion of instrumental cause. See the detailed and meticulous treatment of this concept by J. S. Albertson, 'Instrumental Causality in St Thomas', *The New Scholasticism*, 28 (1954), 409–435.

[40] See, J. W. Donohue, *St Thomas Aquinas and Education* (New York: Random, 1968). See also, *supra*, n. 31.

[41] McCauley, p. 87, n. 38. Thus 'understanding' is essentially an analogous term related to such other analogous terms as 'learning' and 'knowing'. Thus what is meant by 'understanding' in learning-outcomes, whether designed for primary school, second school or third and fourth level education cannot be univocally or equivocally determined without distortion of what is involved in 'understanding' at all of these levels.

by the learner in the knowing process of the learner(s) in such a teaching-learning relation. Within the control of teacher, then, is the 'disposing, ordering and multiplying examples for the benefit of the learner'.[42] Note, here, that when the deliberate intention of the teacher(s) is to not select, or not to provide material for knowledge to be learned, the question of indoctrination arises.[43] In order to teach, the teacher needs to be both open to and balanced in the selection and the researching of material for students; otherwise, there is a real danger of engaging in a process of indoctrination instead of education.[44] And indoctrination, from an educational point of view, is not only poor teaching practice, it is also morally questionable.[45] There is, in other words, an ethical exigency (as Plato had noted) both in the acquisition of knowledge that is presented by the educator and in the presentation of the knowledge-content by the educator to the student to be learned, but the method of teaching itself, whatever the content, is 'an art, and not a science'.[46] In this regard, 'the [good-skilful] teacher adapts his activity to the natural dynamism of discovery learning, seeking to aid and specify that natural activity [of the learner]'.[47] Thus the teacher 'co-operates with and depends on co-operation from the pupil'.[48] All of this is done, on part of both the teacher and the learner, from within a vision of the 'common good' of teaching and learning. The common good, of course, is a moral concept, and so, subject to moral evaluation, but this is precisely why both teacher and pupil need to engage jointly in the evaluation of that 'common good' of teaching *and* learning. Viewed in this light, the teaching and learning relationship is something that is not the exclusive property of either teacher or learner but a shareable reality between the parties that is brought into existence through their co-operation, and only exists therein.[49] If, for instance, a student steals a book from the library which the teacher has provided in the library for students from which to learn, then this affects, detrimentally, the common good of both teaching and learning. And if the teacher withdraws a book from the library (or fails to provide that source through culpable negligence) so as students will not be

[42] McCauley, p. 83.

[43] If the teacher is aware of this short-coming in his presentation of his material for the student to learn, and does nothing about such culpable negligence, then there is, as McCauley notes, very little difference between such 'faulty teaching' and 'indoctrination' (p. 89, n. 80).

[44] Research undertaken for the purposes of teaching, then, is far from being an added luxury of a teacher because teaching implies research. Such research for teaching purposes is essential to (good) teaching practice. Research, of course, can be conducted for other purposes that are not directly related to what one teaches or to the purpose of educating others (either directly or indirectly).

[45] The question of indoctrination often arises in conjunction with the teaching of religion, though it certainly is not confined to issues of religious education.

[46] McCauley, p. 84.

[47] Ibid., p. 82.

[48] Ibid.

[49] This is why, as Hogan remarks, 'healthy relationships of learning are not something that can be made at will by the teacher. They are a joint achievement requiring, to be sure, diverse qualities of originality [and imagination] in the teacher, but requiring also a response-in-kind [of originality and imagination] from students' (*The New Significance of Learning*, p. 77). He does remark, however, that 'close attention to these responses, and to building productively on them, is one of the most neglected aspects of the study of teaching' and that 'such responses can originate something as yet unthought of, and take learning on paths which neither teacher nor students had previously envisaged' (p. 77–78). Focus on identifying and stipulating in advance 'learning outcomes' would appear, therefore, to overlook, again, this essential dimension of healthy teaching and learning relationships.

exposed to it, then this, too, is equally detrimental to 'the common good' of teaching and learning.[50]

Turning to the agency of learning, from an Aristotelian-Thomistic point of view the exercise of an individual's abstractive powers of knowledge on what is presented by the teacher is the responsibility of the student. This, of course, presupposes that the 'learner is open to outside influence [and predisposed to receiving such information]'.[51] And it is 'through this opening that the activity of teaching intervenes in the learner's activity'.[52]

Within this intervention, then, '(I)n learning the pupil is moving from image to image, from insight to insight, from judgement to judgement, in an ever growing complexity […] [reaching] the act of knowledge, which is […] the term of learning, its goal.'[53] Thus it follows that if a 'student is lazy or ill, or merely inattentive and inclined to day-dream, then his or her eliciting of agent acts i.e. his active participation in learning, will be greatly diminished.'[54] In this regard, as McCauley acutely argues, '(T)he pupil remains the principal cause of his or her learning, and ultimately the teacher's action is intelligible only in conjunction with, and in subordination to, that of the pupil.'[55]

And if the teacher is lazy, or inattentive and ill-prepared for his class, he is responsible for that, and that also diminishes the common good of teaching and learning.[56] All of this is another way of saying and of acknowledging that teaching and learning are inter-dependent activities each with their own respective, apportioned responsibilities and agencies, and not separate and discrete activities co-incidentally arsing in the educational market-place as promoted by 'the Standard Thesis'. The teacher and teacher's activities are instrumental in the student's learning. Viewed in this way, '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'.[57] And this account not only leads to the possibility of gaining a better understanding of the relation that exists between teaching and learning but it also provides the possibility of gaining a better point of application for evaluating both the activities of teaching and of learning wherein the duties and responsibilities of the teacher *qua* instrumental secondary cause in

[50] Thus the teacher is also bound, both practically and ethically, to learning by discovery in that individual's own research activities for teaching purposes. One can, of course, undertake research and engage in research activities that are not connected to teaching purposes. See, *supra*, n. 44.

[51] McCauley, p. 81. Not all pupils in a classroom or all students in a lecture hall are equally pre-disposed to receiving such information dispensed by teachers. This is why support services outside of the classroom and lecture hall are indispensable to the unfolding of the 'common good' of teaching and learning, and their constant improvement an ethical exigency for the providers of education. Unlike business that can select the best products and sell on only the best products, teachers have to bring along mixed abilities to the best of those abilities where outside social factors are brought into the classroom and lecture theatre too. See Pring's remarks on the entrepreneur that produced an excellent business in 'blueberries', and the inadequacy and distortion of applying such a model to education, in Section III 'Are Schools Businesses' of his paper in this collection, 'What Counts as an Educated Nineteen Year Old?'.

[52] McCauley, p. 81.

[53] Ibid.

[54] Ibid., p. 83.

[55] Ibid., p. 82.

[56] See, Hogan, p. 79.

[57] McCauley, p. 83.

specifying what knowledge is to be learned, its presentation, ordering and delivery to students, as well as a student's principle responsibilities for her own acts of learning, are both respected. From within this realist, Thomist perspective, therefore, teaching objectives and learning outcomes cannot *in principle* be disassociated, nor can a priority be given, in any strong disjunctive sense, either to teacher-centred or to student-centred education as an educational quality-assurance criterion precisely because in the teaching and learning relationship the teacher's objective is directly related to and subordinated towards the learner's learning outcomes — but the successful achievement of those learning outcomes by the student, and the level of achievement possible, is entirely dependent, in reality, on the co-operation of both teacher and learner and on each of their respective capabilities, skills, creative abilities and willingness to actively take up their respective responsibilities.[58]

IV
Some Conclusions and Some Evaluations

The causal linkage involved in any teaching and learning relationship is a complex one, and this is why the relation between teaching and learning is not as cut and dried as assumed and promoted by the 'Standard Thesis' on teaching and learning. *A fortiori*, analyzing teaching and learning under the assumption that they are, or ought to be best understood as discrete activities cannot in principle enable proper reflection or adequate appraisal of the teaching *and* learning activities. The analysis and model of principal and secondary-instrumental causality is better suited to explaining the realties of teaching and learning, paying due attention to the point of contact wherein the teacher is instrumentally involved with the learner in the process of the *passing-on* of educational content. This *passing-on* of knowledge is one function of education and one purpose of education, and it is a function that, as M^{c}Cauley and the followers of St Thomas stress, both requires and invites active learning through imitation on part of the student. Indeed, this is why the power of 'imitation' (*mimesis*, Greek) in knowledge has always been — ever since Plato spotted it — and will always be, into the foreseeable future, an issue of concern, if not of censorship, however contentious the latter may be, for 'luminaries', 'leaders', and 'people-in-charge' of 'educating' others.

Another function and purpose of education, however, is the exercise of 'discrimination'. Education requires and invites not only active learning through imitation but also active learning through discrimination. Where does this occur in the process outlined above?

[58] This seems to be overlooked by the promoters of the Bologna Agreement and Bologna Process, but it is assumed that a student-centred approach tailored to 'learning outcomes' is a criterion of quality-assurance of a learning process for students in education (see, *supra*, n. 4). Teaching, of course, is, in principle, sub-ordinate to a learner's learning, hence, in this regard identifying learning outcomes should make the responsibilities for both teacher and learner more visible. That is to be welcomed. It does not follow, however, that identifying learning outcomes and making such responsibilities more visible leads automatically to an improvement in the quality of teaching or learning among teachers and learners. Many more factors need to be taken into consideration in this complex network of co-operative principal and instrumental-causality that is operative in the reality of teaching and learning.

The teacher exercises powers of discrimination in the 'selection' of the material, over which the learner has little control. Such discrimination and responsibility, therefore, is exercised to a greater extent on the part of the teacher (and of the institution, e.g. syllabi, courses designed and designated learning-outcomes, library resources etc.). Can the learner select the material? No, because in this process the subject-matter or body of knowledge is there (first) to be known by the teacher *qua* presenter (educator) and *then* to be discovered by the learner.[59] Given that this is the way knowledge is passed-on in a teaching–learning process, the question arises: is there not a real possibility that the knowledge-content that is being passed on becomes a commodity, a consumer–customisable product which is transmitted *via* those in charge of educational systems and institutions, who also select such knowledge-content (and appoint the educators), to re-produce and sustain those that are already in dominant positions of power and in charge of education?[60] Power relations exist in the real world and have a very significant impact and influence on the selection of the content of education provided.[61] This question, therefore, raises the wider social question regarding the role of ideology in education and the philosophical debate about which 'values' and 'whose values' that are being transmitted in and through educational establishments. Thus it would appear to be the case that the entire process of education is, at bottom, essentially a normative activity in that, as Frankena succinctly points out, 'it is concerned to propose ends or values for education to promote, principles for it to follow, excellences for it to foster, or methods, contents, programmes etc. for it to adopt or employ in general or specific situations.'[62] If this is the case, however, this raises the question, can the kind of knowledge sought that does not re-enforce established and dominant historical and social values in a given society, but which is critical of accepted values of a society, be taught in a given educational establishment? Where

[59]Of course, a pupil could discover some item of knowledge, or relevant book or perspective on the topic that the teacher has not encountered and draws this to the attention of the teacher. In such cases, one is reminded of one of Nietzsche's famous aphorisms: 'one repays a teacher badly by remaining a pupil'. This should not detract from seeing the generosity of the acts of any teacher in any teaching–learning relationship, but this will be difficult to see if one chooses *not to take* (*a priori*) such acts for what they *are*. See, *supra*, n. 16.

[60] This has been one of the cental bones of contentions of Marxist inspired critiques of education associated with such figures as Paulo Friere's *Pedagogy of the Oppressed* (Penguin, 1970); Ivan Illich *Deschooling Society* (Penguin, 1973); Michael W. Apple, *Education and Power* (London: Routledge, 2nd edn, 1995) and his *Ideology and Curriculum*, 3rd edn (London & New York: RoutledgeFarmer, 2004), and by many others. It also plays a very significant role in the origins of so-called post-modern thinkers. See, for example, the previous article, in this volume, by Jones Irwin, 'Re-Politicising Education — Interpreting Jean-François Lyotard's '68 Texts and *The Postmodern Condition* in a Contemporary Educational Context'.

[61] In many respects such politics is outside of ethics and needs to be studied outside ethics; but such politics, nevertheless, raises ethical concerns. For a general take on these wider issues, see Raymond Geuss, *Philosophy and Real Politics* (Princeton & Oxford: Princeton University Press, 2008).

[62] W. K. Frankena, 'Educational Values and Goals: Some Dispositions to be Fostered', *Monist*, 52 (1968), 1–10. Incorporating 'excellences to foster' that find their objectives and their criteria of success outside of educational values, aims, principles and goals, such as, for instance, successful business operations, therefore, will have a detrimental affect on both the provision and the quality of education. Thus Pring sees not only the limits of the applicability of the business model of operating to education (as many others argue for) but the *inapplicability* of that model to the advancement and quality-assurance of (genuine) education. See Pring's paper in this volume, especially Ssection V 'The Aims of Education'.

and how does one proceed in order to arrive at a genuine critical knowledge and critical understanding of such social and political conditioning, and of the 'values' that are being transmitted in and through the educational process? These questions point to a different set of issues about teaching 'and' learning, and to a different set of questions about the 'content' of knowledge because here the social-historical-political conditions that play a determinative role in the constitution, transmission and transference of the knowledge-content now becomes the main 'object' of focus and of enquiry in the examination of learning through discovery. This topic, however, brings us beyond the analysis of the synchronic-temporal dimension that exists in the teaching-learning relationship and in the direction of the diachronic-historical depth-dimension that is also present in the teaching-learning relationship. Addressing this topic is outside of the parameters and scope of this paper, but it would invite and require both a historical and a hermeneutical approach in the analysis of the power relations inherent in the kind of causality and causal link that exists (and that is brought into existence) in the social and political reality of teaching and learning.[63]

[63] This article is a revised version of a paper that I read at the Autumn 2008 Conference of the Irish Philosophical Society on 'Philosophy of Education' at Mary Immaculate College, University of Limerick. It is also based upon part of a lecture-course on the 'Philosophy of Education' which I delivered at St Nicholas Montessori College, Ireland, Dún Laoghaire, Co. Dublin (from 2004–2008). I would like to thank the participants at the Conference, students at St Nicholas's during the years I taught there, and the reviewer of a draft version of this article for their very helpful remarks and queries regarding the topic and issues addressed in this paper. Also, I would like to acknowledge and to thank, in particular, Dr Harry McCauley, who recently retired from the Department of Philosophy at National University of Ireland, Maynooth, where he taught for over 30 years. For Harry, teaching implied research, and thus he never stopped learning as he taught, graciously giving to his students the best of his own teaching and learning and preparation in philosophy (on a remarkable range and depth of treatment of topics). I was, therefore, quite fortunate, to have him as one of my lecturers, when I was a student at Maynooth, as all of his students were, and later equally quite fortunate to work with him as a colleague, as all of his colleagues were. My understanding of the teaching–learning relationship in this article is indebted to him, but the mistakes in my understanding of the said topic in this article are entirely my own.