

Hirst on educational theory

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Paul Hirst's writings about the nature of educational theory continue to be important to the field of education. In this paper I unpack and analyse in some detail his conception of educational theory. I centre my discussion on three issues. First, I look at the 'big picture', how Hirst situates educational theory between the foundational disciplines and educational practice, and in so doing endows it with a specific function. His view is contrasted with the view of D. J. O'Connor; the discussion between the two of them is well known. Second, with the big picture in place, I inquire deeper into Hirst's view of the *raison d'être* of educational theory. Here his views are compared with those of the German philosopher of education Erich Weniger. Finally, I discuss Hirst's later revisions of his view, most notably his argument that the justification of educational theory by the foundational disciplines is not enough. Educational theory must also pass the test of practice, he claims. I judge this to be a considerable change, one that blurs the big picture rather than making it clearer.

KEYWORDS: educational theory, function, practical test

INTRODUCTION

When we construct knowledge about phenomena in the world, we have at our disposal many different forms of representation, such as paintings, photos, models, equations, narratives, calculi, histograms, graphs, and computer-generated images. However, the most common form of representation surely is *theory*. The world of science is full of theories, from the theory of evolution to the S-R theory of learning. In a similar vein, education scholarship is full of appeals to theory: theories of instruction, self-formation, curriculum, moral education, and so on. But what is a theory, exactly? What does it do for us? In education (and in science in general)

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the term ‘theory’ is used in a bewildering variety of ways, and I venture to suggest that most researchers and practitioners would be at a loss if asked to define it. Many authors point out the bewildering variety of meanings attached to ‘theory’, and some attempt to categorize the meanings and create some order in the chaos. For example, D. J. O’Connor (1957) delineates four different uses of the term ‘theory’ in science. John Chambers (1992) delineates nine clusters with slight variations in each cluster. The variety in usage is not necessarily a problem in itself, Chambers thinks, but it can become one if researchers do not understand the multiple roles played by theory, or ignore or muddle up different types of theory and their proposed functions. The general conceptual landscape concerning ‘theory’ is fuzzy and confusing, perhaps paradoxically given the (apparent) ease with which we use the term.

What, then, of educational theory? Paul Hirst is one of the strongest and most influential voices in the debates over the nature of educational theory. In this article I discuss various aspects of his view on the matter. Hirst’s writing on educational theory is quite extensive and stretches across at least two decades (e.g. Hirst 1963, 1966, 1973, 1983)—four decades if we include adjacent topics (e.g. Hirst and Carr 2005). It involves a number of other issues, such as the foundational disciplines and their role, the is–ought relation, and practical principles. It is thus a complex nexus of intertwined issues that we meet in his writings. As we shall see, unpacking Hirst’s notion of educational theory is by no means an easy feat. I approach it by inquiring into the following topics. First, I discuss the ‘big picture’, how Hirst situates educational theory between the foundational sciences and educational practice, and, in so doing, endows it with a specific function. Here I bring in D. J. O’Connor. O’Connor (1957, 1973) discussed the conditions for something qualifying as a theory, and this discussion set the stage for a famous debate with Hirst. Second, I inquire deeper into Hirst’s view of the *raison d’être* of educational theory and compare his view with that of the German philosopher of education Erich Weniger (Weniger 1990). Comparisons are often instructive and I argue that this one is especially so. Finally, I discuss Hirst’s revisions of his view. In a later paper (1983) he argued that justification of educational theory by the foundational disciplines is not enough: the theory must also pass the test of practice. I judge this to be a considerable change, one that blurs the big picture rather than making it clearer.

ENCIRCLING HIRST’S CONCEPTION OF EDUCATIONAL THEORY

We ask ourselves what *educational theory* is. How should we go about finding an answer to our question? Evidently, we have different avenues available to us for exploring it. Hirst’s point of departure is a certain, by all accounts preconceived, understanding of the job that educational theory is to do for us, namely to *determine practice*. He locates educational theory as part of a bigger picture. In addition to educational theory, this picture consists of educational practice, foundational

disciplines, and educational principles. We should naturally expect practice to belong to the bigger picture, since it comprises the ‘object’ of educational theory. When foundational disciplines and practical principles are included, the picture becomes complex and very ambitious; the whole of the educational enterprise is meant, I think, to fall into place here. The big picture is this: the foundational disciplines—without question assumed to be philosophy, psychology, sociology, and history—influence educational practice only indirectly. Educational theory functions as an intermediary domain where theoretical insights are considered alongside other elements and then transformed into principles for educational practice. In an early discussion about the relationship between philosophy and educational theory, he puts it like this:

between philosophical beliefs themselves and educational practice we must envisage a domain of theoretical discussion and investigation concerned with forming these [practical] principles. To this domain, which I shall refer to as educational theory, philosophical beliefs make their distinctive contribution alongside social theory, psychological theory and so on. (Hirst 1963: 52)

We may note a couple of things here. First, educational theory is a mediator, inserted between foundational sciences and educational practice. The mediation is seemingly unidirectional: educational theory receives or takes input from the foundational sciences and transforms this into practical principles that are to determine educational practice. It seems that nothing flows the other way. But, second, this is not a straightforward deductive route, since educational judgements are not produced solely by rules (Hirst 1966: 35). I return to this issue in a subsequent section. Suffice it here to say that Hirst remains unrepentant about this big picture concerning the nature of educational theory, although he later revises his view as to where the practical principles come from and how they are justified. What are we to make of this?

Domains, theories, and principles

Let us first look at the term ‘domain’. Sylvain Bromberger identified two main uses of the term ‘theory’ in science. First, there are theories that can be ‘accepted, rejected, believed, remembered, stated, granted, confirmed, refuted, have authors’. Then there are theories that can ‘include contributions from many sources, they have founders and perhaps foundations, they are academic subjects’ (Bromberger 1963: 83). Bromberger’s theories of the second sort do not take any specific phenomenon as their object but rather denote whole domains, areas, or fields of inquiry. ‘Theory’ understood as a domain contains many ‘theories’ of the first sort. For the most part Hirst indeed uses ‘educational theory’ to denote a domain or a composite area. He remains, he says, ‘unrepentant in seeing educational theory as primarily the domain which seeks to develop rational principles for educational practice’ (Hirst 1983: 5). A couple of initial observations are in order. First, ‘educational theory’ in this way becomes very difficult to specify. Hirst consistently speaks of educational theory in the singular and thus reinforces his own treatment of it as a large undifferentiated entity. This serves to explain, perhaps, why he never provided any concrete examples of educational theory; domains by their nature

prove quite resistant to concrete exemplifications. Second, Hirst actually also makes the same distinction as Bromberger. ‘Educational theory’, he says, can denote

the body of scientific knowledge on which rational educational judgements rest. It is, however, also [used] for the whole enterprise of building a body of rational principles for educational practice. In this second sense it is the label for a domain of theory that not only draws on educational theory in the first, scientific sense, but draws on much else besides. (Hirst 1966: 41).

Thus, educational theory as a domain contains a number of delimited, specific educational theories. As far as I can see, Hirst provides no examples of educational theories, in the plural, or any more concrete sense of what they comprise. This is a sin of omission, because such theories clearly exist. For example, theories of reading instruction or theories of self-formation (see [Kvernbekk 2021](#), for a detailed discussion about educational *theories* in the plural). However, it may be hard to show how any such concrete theory could perform the filter function with which Hirst endows the domain, either by itself or in conjunction with whatever else the domain contains.

Domains and delimited theories are connected in the sense that the latter are parts of the former, and the term ‘theory’ is used to refer to both. But, then, what about principles? Mostly we seem to take it for granted that we understand what a principle is, and in many cases a vague understanding would seem to suffice. Hirst, to the best of my knowledge, offers no definition and no examples. The term is standardly used to denote such entities as values to guide behaviour, laws, rules, and axioms; in ethics, law, science, and logic. It is not unreasonable to assume that Hirst thinks of principles as value-laden propositions to guide behaviour in educational practice— the teacher’s behaviour, that is, not the pupils’. The relation between educational theory and practical principles is obscure. In some places, it seems that the principles are the *output* of the transformative work of educational theory, meaning that theory and principles are clearly distinguished. The foundational disciplines influence practice indirectly: they must pass through the medium of educational theory *before* any particular principles can be formulated ([Hirst 1966](#): 33). In other places one gets the impression that educational theory is *constituted* by the principles, as when he says that ‘In adequately developed theory the effect of the disciplines in practice is discerned through the filter of practical principles’ ([Hirst 1983](#): 26): either the principles have taken the place of the theory, or they are one and the same entity. The proposed function of educational theory remains the same, regardless of the relation between theory and principles—a mediator between the foundational disciplines and educational practice.

It is a weakness in Hirst’s treatment of educational theory that he never offered any concrete examples of educational theory, as domain, delimited theory, or practical principles. Nor did he offer any examples of how the educational domain does its proposed transformational work or performs its filter function. The lack of concrete examples makes it very difficult to grasp the nature of educational theory in Hirst’s understanding of it. It also makes it difficult to judge the adequacy of his analysis, for two reasons: first, because the existence of examples could have provided

inductive support for his analysis, and second, because such meta-theoretical analyses demonstrate their worth by explicating, illuminating, and providing insights about concrete examples. Worse, the lack of examples of the proposed workings of educational theory raises suspicion that there simply *are* no instantiations of this kind of transformational process. If so, that casts serious doubt on Hirst's view of the function of educational theory—and thereby on its nature, since nature and function in Hirst's analysis are inextricably intertwined.

Debate with O'Connor

It is high time to bring D. J. O'Connor into the picture. In my judgement we all owe a big debt to O'Connor (1957, 1973). He discussed what it takes for some entity to qualify as a theory, and in retrospect, his discussion is highly important to the philosophy of education. Not because he was right (in fact I believe he was not), but because his discussion initiated his well-known debate with Hirst over the nature of educational theory. This debate in turn has proved important to the field of education by drawing a clearer picture of the field, by making explicit a range of assumptions, and by spawning recurrent debates about how educational theory is to be understood.

O'Connor begins by delineating four different senses of 'theory' found in science. Two of them are judged to be important in educational contexts. In the first of these senses, 'theory' is contrasted with practice and refers to 'a set or system of rules or a collection of precepts which guide or control actions of various kinds' (O'Connor 1957: 75). This, in O'Connor's judgement, is a vague sense of 'theory' and amounts to no more than a general conceptual background to some practical activity. In the second sense, 'theory' is used as it occurs in the natural sciences—as a logically interconnected set of hypotheses confirmable by observation. This is O'Connor's preferred sense, since it 'gives us the standards by which we can assess the value and use of any claimant to the title of "theory"' (p. 76). This sense of theory ties in with Bromberger's first main use of 'theory', as a (more or less well) defined entity that can be stated, remembered, confirmed, refuted, and so on. Logically interconnected sets of empirically confirmable hypotheses clearly have other properties than do domains, concerning both structure and content. O'Connor asks what *an* educational theory is (Chapter 5 in his (1957) book is called 'What is an educational theory?'). The innocuous 'an' indicates that educational theory is not a large undifferentiated entity but something that can be meaningfully individuated. It follows that we can speak of educational *theories* in the plural.

Thus armed with an explicit conception of theory, O'Connor then asks how far educational theories properly should be called theories. To address that question, he has to locate educational theories, compare them with his preferred standard and see how they fare. Educational theory comprises the basis for educational practice; that is its function. It is thus in relation to practice that O'Connor aims to find educational theory. Practice being what it is, its basis embodies three distinct kinds of statements: metaphysical statements, empirical statements, and judgements of value. Of the three, empirical claims and value judgements are recognized to be

of great importance, whereas metaphysical beliefs are more dubious since we have no way of confirming them even if we do appeal to them. The statements are different in kind and their logical distinctiveness prevents them from comprising a theory that would conform to the proposed standard. Roughly, this sketch suffices to establish that ‘theories in education do not, in general, conform to the models that we find in a well-developed natural science’ (p. 104). Finally, O’Connor famously concludes that

We can thus summarize this discussion by saying that the word ‘theory’ as it is used in educational contexts is generally a courtesy title. It is justified only where we are applying well-established experimental findings in psychology or sociology to the practice of education. (p. 110)

I do not know if we should take this to mean that when results from other disciplines are applied to educational practice, they count as *educational* theories; or if we should just take it to mean that, on occasion, we do find theories in educational contexts, only that they are psychological or sociological in nature. It will be recalled that applying findings in psychology or sociology (directly) to educational practice is not allowed in Hirst’s scheme of things; the findings would have to be filtered through educational theory and transformed into rational practical principles before they could be used in educational practice. As said above, the principles are not to be thought of as *deriving* from disciplines, or from experimental findings.

Hirst (1963, 1966) agrees that judged by O’Connor’s proposed standard, educational theory comes off rather badly. But, Hirst argues, the proposed standard is not valid for education. O’Connor, Hirst says, is obsessed with scientific theory as the paradigm for all theories, and because of this ‘he totally misjudges the importance of the non-scientific elements that he himself diagnoses in discussions’ (Hirst 1963: 59, 1966: 39). According to Hirst, it is the first of O’Connor’s two main senses of ‘theory’ that is meaningful for education, not the second, as O’Connor suggests. As Hirst sees the matter, ‘Educational theory is in the first place to be understood as the essential background to rational educational practice, not as a would-be scientific pursuit’ (Hirst 1966: 40). Let me quickly interject a question here and then just leave it: is ‘being the essential background to practice’ the same as ‘being the mediator between foundational disciplines and practice’? Because O’Connor employs the wrong conception of theory, he ‘has singularly failed to do what he set out to do—to discover the job educational theory performs’, Hirst objects (Hirst 1963: 59). In the 1966 paper Hirst reiterates the analysis of O’Connor advanced in his 1963 article—in fact, he plagiarizes himself—but he also expands and deepens his views. He makes a clear distinction between scientific and practical activities:

Yet the theories of science and the theories of practical activities are radically different in character because they perform quite different functions; they are constructed to do different jobs. In the case of the empirical sciences, a theory is a body of statements that have been subjected to empirical tests and which express our understanding of the physical world. Such tested theories are the objects, the end products, of scientific investigation, they are the conclusions of the pursuit of knowledge. Where, however, a practical activity like education is concerned, the place of the theory is totally different. It is not the end product of the pursuit, but rather it is constructed to determine

and guide the activity. The function of the theory is to determine precisely what shall and what shall not be done, say in education. (Hirst 1966: 40)

John Chambers (1992) distinguishes nine categories for ‘theory’, with slight variations in each category. His fourth category is practical theory, whose function it is to determine practice. It is characterized as follows:

Its present form would seem to be a mixture of facts, rules, precepts, pedagogical traditions, professional wisdom, assumptions about the nature of learning, psychological and sociological claims, beliefs about the nature of persons, social norms and values, philosophical argument, general principles, socio-political assumptions, and so on. Despite its conglomeration of different disciplines and logical kinds its point is to *help teachers and administrators decide what ought to be done in their classrooms and how it should be done.* (Chambers 1992: 13–14).

Chambers explicitly includes Hirst’s conception of educational theory in this category. Given this characterization, it certainly looks more like a domain than a delimited theory, and a rather messy domain to boot. Domains cannot be tested against observation and experience in the way that delimited, specific theories can. Is it possible to pinpoint the boundaries of such an unwieldy entity so that we can keep track of what falls inside it and what does not? What keeps such entities together? Chambers insists that the unity of such practical theories is provided by the consistency of the set of principles underpinning the *what* and *how* of the theory. He provides no examples, and it is indeed hard to see what the *what* and the *how* amount to. Perhaps Chambers picked up on the idea of unity from Hirst. In his retrospective look at 20 years of debate about educational theory, Hirst writes: ‘And if educational theory is a composite area of this kind, I remain unrepentant in regarding its unity as the unity of a consistent set of principles of practice at which it aims’ (Hirst 1983: 5).

As we have seen, O’Connor discusses ‘theory’ in terms of Bromberger’s theories of the first sort, theories that can be tested, confirmed, refuted, believed, and so on. Probably unbeknownst to himself, O’Connor adheres to what is known as the Received View of theories—the logico-positivist conception of scientific theories, traceable to the works of the Vienna Circle (see e.g. Carnap 1936; Hempel 1952; Nagel 1961). In its barest bones, this conception says that a theory is a logically connected set of axioms and hypotheses verifiable by observation, but it of course gets more complex upon unpacking. O’Connor’s deployment of it is quite interesting and worthy of mention. He deploys it normatively in the scrutiny of educational theories, such that any candidate that does not satisfy the proposed conception is found wanting. The theory conception takes precedence, and thus O’Connor concludes that the field of education in reality has no theories. In passing, this is parallel to how we deploy moral principles: if your behaviour violates the principle, your behaviour is found to be at fault, not the moral principle. In research it is the other way around: if there is a discrepancy between an empirical law and data, it is the law that is judged to be wrong.

Hirst declares that O’Connor’s standard for what a theory is simply is not valid in education. That is a judgement I share. However, I much appreciate O’Connor’s

meta-theoretical approach: it opens up developments in our thinking about educational theory that, I would argue, Hirst's view does not. There exist other meta-theories besides the Received View, and if we deploy these as lenses through which we scrutinize the field of education, very different views of educational theories emerge (see [Kvernbekk 2021](#) for an in-depth discussion). The individuation of educational theories that O'Connor evidently presupposes is of great importance because it opens up the idea that educational theories can be of different kinds and perform several functions. Some of them may (primarily) guide practice, such as science education theories; others may (primarily) represent processes, such as theories of *Bildung*. Neither O'Connor nor Hirst considers this possibility; both assume that all educational theories have the same job, namely to determine or guide practice.

A CLOSER LOOK AT THE FUNCTION OF EDUCATIONAL THEORY

A theory's function is its *raison d'être*, the reason why we construct it in the first place. We want theories to do something for us. O'Connor, after concluding that the term 'theory' in education is a courtesy title, concedes that we cannot really deny that education has a theoretical basis and so the question of the function of educational theory must be reformulated into 'what job these educational theories do if they do not have the logical status of standard scientific theories' (O'Connor 1957: 104). Despite their differences, O'Connor and Hirst agree that educational theories are action-oriented. Like many other educationists, they simply assume that the object of educational theory is *practice*, which is value-laden and intentional in character. We couple that assumption with the additional assumption that educational theory (and pedagogy) is oriented toward the practitioner, the adult, and as a result educational theory has the job of guiding the practitioner's actions in practice. In principle, of course, theories can be constructed for many other purposes besides guiding action and modifying some aspect of the world—to describe, understand, explain, predict, justify, and so on. This is a topic I come back to in the next section.

Debate with Weniger

I propose in this subsection to put Hirst into debate with the German philosopher of education Erich [Weniger \(1990\)](#). By all accounts, the two of them never read one another's work, so the debate is staged by me. The contrast between them is instructive.

Hirst's description of the function of educational theory is striking and merits repetition: 'The function of the theory is to determine precisely what shall and what shall not be done, say in education' ([Hirst 1966](#): 40). 'Shall' is an auxiliary modal verb used interchangeably in this sense with 'must', so Hirst is here making a very strong claim concerning what educational theory is capable of doing; indeed, he seems to make educational theory a recipe for action, endowing it with a strongly

prescriptive function. The ‘what shall be done’ refers to the teacher, not to the pupils: the theory tells the teacher what he or she must do. For the sake of simplicity, I ignore here the question of whether it is the *theory* that determines the practice or the *practical principles* formulated by the theory that determine the practice. Let us stay with Hirst’s own formulation. But at what level of abstraction does the theory determine what must be done? We get no help here from Hirst himself: as argued above, he provides no examples of what concrete theories say and how they perform their job. Suppose we take a teacher’s demonstration of the Pythagorean theorem as an example of educational practice (Kvernbekk 2021). Would ‘demonstrate’ count as sufficiently precise, or do we need something more specific, such as ‘draw a triangle of defined proportion, then point to the hypotenuse and explain...’? I cannot imagine what an educational theory would look like if the latter level of specificity were demanded for a theory to *determine precisely* what must be done. It would amount to a recipe, though, with each act individually described. However, I doubt it would be of much use to teachers: the prescription for teaching Pythagoras alone would likely be a small book. Thus ‘precisely’ cannot be understood at too high a level of specificity—that would yield an unwieldy and rigid recipe. And what would be the implications: would we need one theory to determine precisely how Pythagoras should be taught, and another equally detailed one for evolutionary theory? What would we need for the teaching of literary appreciation? For every stated goal or learning outcome in the curriculum? Surely this cannot be what Hirst intended. However, in the absence of concrete examples, it is hard to say what he envisioned for his proposed conception of educational theory.

Let us now turn to Erich Weniger’s view. He has the same basic view of educational theory as Hirst, namely that it is practice-oriented in nature. And yet Weniger’s conception of educational theory is something peculiar to itself. He distinguishes between three different *degrees* of theory. A theory of the first degree is ‘das weltanschauliche Apriori, das ein etisches Apriori in sich schließt’ (Weniger 1990: 38; ‘an a priori world view, containing an ethical a priori’, my translation). Theories of this kind essentially belong to the practitioners, making up their fundamental ethical attitude and responsibility, and may be largely unarticulated. Theories of the second degree comprise what the practitioner can articulate, formulated in ‘Lehrsätzen, in Erfahrungssätzen, in Lebensregeln, in Schlagworten und Sprichwörtern und was es so gibt’ (p. 39; ‘doctrines, experiences, rules of life, slogans, proverbs, and the like’). These are the explicit beliefs that practitioners employ in their practice. Even second degree theories have something decidedly private about them, quite different from the foundational disciplines in Hirst’s picture, which we surely must regard as public.

However, these two forms of theory are not sufficient. At the intersection of theories of the first and second degree we find one of the most basic problems of educational theory: the relation between ‘Wirklichkeit und Theorie, Begriff und Leben, Sein und Sollen in der Pädagogik’ (p. 39; ‘reality and theory, concept and life, what is and what should be in pedagogy’). This relation is of the utmost importance, because a genuine educational theory turns on the internal consistency of the

practitioner's theories of first and second degree. Explicitly held beliefs must be in agreement with ethical attitudes. Discrepancies between the two will result in an 'unwahrhaft' practice—an untrue, non-genuine practice. So here enters the theory of the third degree, to monitor the relation between theory and practice *in practice* and ensure agreement between practitioners' basic values and their espoused views. Unlike theories of first and second degree, a theory of the third degree is *theoretical*, a 'Theorie des Theoretikers' (p. 43), but their function is to make practice more systematic and rational and, by the same token, less random and coincidental (p. 42).

Weniger's conception of theory is practitioner-centred, despite the third degree theory being called a 'Theorie des Theoretikers'. It is unclear where this theory comes from, whether it originates in educational research or in something like foundational disciplines. To judge by its proposed function, it seems to amount mainly to reflection on the relationship between performance and understanding, unarticulated and articulated beliefs. Even third degree theories are deeply rooted in practice, in concrete situations.

Now, it will be recalled that on Hirst's view, the job of an educational theory is to determine precisely what must be done. The three-degree theory of Weniger does nothing of the sort. Weniger argues: '... daß er ein grundsätzliches Mißverständnis der Funktion der Theorie durch den Praktiker ist, wenn er glaubt, die Theorie könne und wolle ihm die Entscheidung dem konkreten Fall vorschreiben oder abnehmen' (p. 32; 'the practitioner fundamentally misunderstands the function of theory if he thinks it can prescribe what he should do in concrete cases, or make decisions for him'). While Hirst (at least in his wording) makes the theory responsible for deciding what should be done, Weniger thus locates this responsibility in the practitioner. In Weniger's scheme of things, the practitioner 'owns' his or her own theory. And yet, he says, the theory neither can nor should be used as a recipe. This is because practice is characterized by great diversity, such that no theory can ever cover all eventualities or, hence, prescribe actions in any detail. It is vitally important for Weniger that practitioners remain open-minded and attentive. There will always be something new: some changes will always happen that require responses different from those the theory determines. The practitioner determines what should be done, not the theory.

The contrast with Weniger brings out a puzzling feature of Hirst's view of educational theory. If the theory determines what must be done, it evidently does so irrespective of the practitioner and also of the diversity of practice. Would not the same theory (or principle) prescribe the same action every time it is used? This could work if all classrooms, pupils, and teachers were alike, but we all know that they are not. As it stands, Hirst's conception of educational theory allows no space for the diversity of practice, and in my judgement this is a weakness. The puzzlement stems from the fact that Hirst is well aware of the diversity in practices and educational contexts more generally. Either Hirst did not trace out the implications for use of his own conception of theory, or he sees the theory as encompassing all manner of contextual elements—the latter possibility raising anew the

question of how a composite conglomeration of domains can aid teachers in deciding which actions to take in their classrooms.

REVISITING THE BIG PICTURE

It will be recalled that the big picture shows educational theory situated as an intermediary domain between foundational sciences and practical educational principles. The influence of other disciplines on educational practice is via educational theory. What scientific status can a domain thus positioned have? It is clearly not a foundational science itself. Hirst was crystal clear that education is not an autonomous discipline. In passing, Weniger has a markedly different view of this and saw education (*Pädagogik*) as a discipline in its own right, which might serve to explain why he saw no need to place educational theory as a mediator between other disciplines and educational practice. For Hirst, the adjective *educational* in ‘educational theory’ has no surplus value, it does not add anything to the understanding of educational phenomena produced by the foundational disciplines. In his 1966 paper Hirst argues that educational principles ‘are justified entirely by direct appeal to the knowledge from a variety of forms, scientific, philosophical, historical, etc. Beyond these forms of knowledge it requires no theoretical synthesis’ (Hirst 1966: 55). He later substantially revises this view. I discuss his proposed revision in the next section.

Ultimately, Hirst argues, the difference between scientific and educational theories is a logical one: ‘scientific theory and educational theory are as different logically as judgments of what is the case are different from judgments of what ought to be the case’ (p. 42). I take him to mean that scientific theories are factual whereas educational theories are normative, containing an *ought* to guide action. As we have seen, his most striking formulation concerning the function of theories contains not an *ought* but the even stronger *shall*. Statements of what ought to be are value-laden and not deducible from statements about what is—Hirst is at pains to evade the naturalistic fallacy. Let us assume that the foundational disciplines represent the *is* and the practical principles constitute the *ought* (or the *shall*). There can be no direct move from *is* to *ought*: the inference is possible only if values are included among the premises, alongside the *is*. Thus, Hirst explicitly includes value judgements in educational theory. He finds O’Connor’s treatment of both metaphysical statements and value judgements far too dismissive (p. 39). Statements of these kinds fundamentally characterize education as a field of discourse; hence, they must be included in educational theory, Hirst argues. But whose values, then, does the theory express? And how can the *ought* of a theory have such a normative force that it incurs obligations in teachers so strong, such that the theory not only *recommends* courses of action but actually *determines* what shall be done?

Hirst makes much of the traditional distinction between scientific theory and educational theory, the former aiming at explanation and understanding of various aspects of the physical world, the latter aiming at determining activity. His view of educational theory seems partly to have emerged from what he thinks it is *not*, as

Rationally defensible practical principles, I suggest, must of their nature stand up to such practical tests and without that are necessarily inadequate. This demand stems from the fact that only principles generated in relation to practical experience can begin to do justice to the necessarily complex tacit elements within practice. Indeed, I would now argue that the essence of any practical theory is its concern to develop principles formulated in operationally effective practical discourse that are subjected to practical test. (Hirst 1983: 18–19)

The role of the foundational disciplines in the justification of educational theory is thus toned down, and ‘educational theory’ becomes ‘operational educational theory’. This move, as I understand it, implies a considerable shift in Hirst’s theory conception, despite those things about which he remains unrepentant. There are three main changes. First, there are the elements that enter into the domain of educational theory. These used to be three: knowledge from the foundational sciences, value judgements, and metaphysical presuppositions. Now we also are to include the knowledge, beliefs, and principles that practitioners actually employ. Second, there is the procedure by which we develop practical principles for practice. This used to begin with considerations of foundational knowledge, values, and presuppositions, but now ‘we must start from a consideration of current practices’ (p. 16); that is, the point of departure is radically shifted. Third, the theory is no longer exclusively justified by the foundational sciences: the theory now has to pass the test of practice. Now, what are we to make of this?

Hirst does not discuss such concepts as usefulness, effectiveness, instrumentality, fitness for purpose, or what works. He does, however, say that principles are to be operationally effective. Conversely, he concedes that ‘The testing in experience of such principles is ... in an embryonic state’ (Hirst 1983: 21). But, inevitably, the idea of subjecting principles to practical tests takes us in an instrumentalist direction. *Usefulness* and its conceptual siblings are generally considered to be an external criterion for the evaluation of theories: we judge the adequacy of a theory after we have put it to (its intended) use and observed the results. This is different from internal criteria, which mainly concern the theory (or some other epistemic product) itself—consistency, coherence, conceptual clarity, precision, and so on. There is nothing in principle to prevent a theory from satisfying both internal and external criteria, of being both coherent and conceptually clear, and practically effective. Nevertheless, the introduction of practical testing muddies the waters. Let us look at some issues.

First, there is the general issue of what a practical test is, and what it means for a principle or a theory to stand up to it. Hirst provides no concrete examples. Does it mean that principles produce the result we intend them to produce—that is, principles are a means to an end, to be judged by their effectiveness or fitness for purpose? What kind of results must a principle produce before we judge that it has stood up to the practical test? How many instances must be recorded before we can infer that a principle is effective? Do the required results have to be somehow measurable? Do they have to be instant, or can a change emerge, say, after six months, and still be considered a result of the principle applied? Furthermore, does Hirst’s revised view entail that evaluations of the adequacy of educational

theory should be entirely up to individual teachers in their particular situations? He does have formulations that point in that direction (cf. the quotation above), but he does not want to give up the criteria that stem from the foundational disciplines. There are certainly other stakeholders who might have a say in the evaluation of educational theory—philosophers of education, for example.

Second, in Hirst's revised big picture, to formulate practical principles we must start from a consideration of current practice and include the knowledge, beliefs, and principles that practitioners already employ. He makes a strong claim about this:

Getting at current practice and policy will necessarily involve articulating accurately the concepts and categories that practitioners use implicitly and explicitly, for it is *only* from descriptions and principles formulated in these terms that an overt rational critique of practice is possible. (Hirst 1983: 16, emphasis added)

If the idea now is that all practitioner knowledge is to enter into educational theory, the domain becomes not only unwieldy but uncharacterizable: practitioners must be expected to have different knowledge and beliefs. Moreover, the 'only' in the quote, alongside tacit and implicit elements, makes both development of and testing of practical principles a wholly *insider* affair (Fay 1996: ch. 1). The insiders (the practitioners) are accorded privileged access to the necessary elements; only they can formulate principles and subject them to practical test. External critique of practice is not possible or will not be rational. It is hard to say what space is left for the foundational disciplines. Interestingly, moving practitioners' explicit and tacit knowledge centre-stage makes Hirst's view more similar to Weniger's, in that the theory seems to become the property of the practitioner, and thus more private. This is where Hirst seems to have moved in his revised view. Admittedly, he does not explicitly abandon the foundational disciplines. But in my judgement, insofar as the introduction of practitioner knowledge, beliefs, experiences, and tacit elements into educational theory signifies a shift towards insider privilege, it is a big shift indeed.

One last thing remains to be considered here: the entity that is to be subjected to practical testing. Hirst in his revised view speaks more about principles than about educational theory. We face the same unclarity as before: are the principles part of the theory or are they something separate? Even in the absence of concrete examples of principles, it makes intuitive sense to think of them as testable in practice. If they are a means to an end, we put them to use and observe the results. Such principles are delimited, much like any ordinary scientific theory—in Bromberger's first sense of the term, theories that are tested against experience. Hirst, however, by his own admission remains unrepentant about educational theory being a *domain*. Domains are much larger and much fuzzier entities. Can we subject a whole domain to practical testing? I would say no. We do not, and cannot, meaningfully subject an entire, fuzzy, internally highly diversified domain to practical testing. But Willard Quine famously argues that that is exactly what is going on. To make a complex story short, Quine argues that science meets experience as a whole, not as single

statements. Statements are logically interconnected, so that re-evaluation of one statement implies re-evaluation of some others, and even of the logical connections themselves. A conflict with experience at the periphery occasions revisions in the interior of the field, Quine argues. And he goes on to say:

But the total field is so underdetermined by its boundary conditions, experience, that there is much latitude of choice as to what statements to reevaluate in the light of any single contrary experience. No particular experiences are linked with any particular statements in the interior of the field. (Quine 1980: 42–3)

And he concludes: ‘Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system’ (p. 43). There is no telling what Hirst might have thought about Quine’s view. How do we judge if a principle, let alone the domain of educational theory, does *not* pass the test of practice? What should we do with a principle that conflicts with experience? Whose experience? What works in one classroom might not work in another. It was, perhaps, wise of Hirst to say what he did: that the testing in experience of practical principles was in an embryonic state and that no particular methodology could be advocated at the time.

CONCLUSION

Hirst’s writings on the nature of educational theory are on the whole very abstract, quite difficult, and yet linguistically clear. There are no concrete examples to clarify matters and aid the understanding of the reader. It may be the case that he just did not think it worthwhile to use examples. It is worse if there simply *are* no examples, for instance of how educational theory produces practical principles, or of what it might look like when an educational theory determines precisely what should be done in practice. This abstractness makes it difficult to judge the adequacy of his views.

It is an honest matter to revise one’s views. Hirst changed his view of educational theory after consideration of arguments and viewpoints set forth by other philosophers. He was crystal clear about what he remained unrepentant about and how he had revised his views. And true enough, on the face of it, it seems a logical change to extend educational theory to incorporate practical knowledge and experience: they were after all the intended target of educational theory. But the result, so far as I can discern it, is a domain that is meant to encompass ‘everything’ and therefore is messy, unwieldy, and enormously diversified internally. The inclusion of tacit elements serves to make a principle untestable, or the results uninterpretable.

If we look at the recent development of the field of education, we see that it has expanded enormously. In this respect I think the ‘terrain’ has outgrown Hirst’s ‘map’. Despite his attempts to address the diversity of the field, Hirst was looking for *one* kind of educational theory, with *one* function. His explorations are both influential and important. They have spawned long-standing debates and brought to the fore central issues and assumptions. But for a diversified field that studies a

number of different topics from a manifold of angles, *one* kind of theory simply will not do. Hirst overstated the difference between the disciplines and education. Education, like any other field, has different kinds of theories that can perform different functions.

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