

HUMILITY, LISTENING AND 'TEACHING IN A STRONG SENSE'¹

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ABSTRACT: My argument in this paper is that humility is implied in the concept of teaching, if teaching is construed in a strong sense. Teaching in a strong sense is a view of teaching as linked to students' embodied experiences (including cognitive and moral-social dimensions), in particular students' experiences of limitation, whereas a weak sense of teaching refers to teaching as narrowly focused on student cognitive development. In addition to detailing the relation between humility and strong sense teaching, I will also argue that humility is acquired through the practice of teaching. My discussion connects to the growing interest, especially in virtue epistemology discourse, in the idea that teachers should educate for virtues. Drawing upon John Dewey and contemporary virtue epistemology discourse, I discuss humility, paying particular attention to an overlooked aspect of humility that I refer to as the *educative* dimension of humility. I then connect this concept of humility to the notion of teaching in a strong sense. In the final section, I discuss how humility in teaching is learned in the practice of teaching by listening to students in particular ways. In addition, I make connections between my concept of teaching and the practice of cultivating students' virtues. I conclude with a critique of common practices of evaluating good teaching, which I situate within the context of international educational policy on teacher evaluation.

KEYWORDS: humility, teaching, listening, John Dewey, virtue epistemology, teacher evaluation policy

Must one have humility to teach? The answer to this question depends on what we mean by teaching. My argument in this paper is that humility is implied in the concept of teaching, if teaching is construed in a strong sense. Teaching in a strong sense is a view of teaching as linked to students' embodied experiences (including cognitive and moral-social dimensions), in particular students' experiences of limitation, whereas a weak sense of teaching refers to teaching as narrowly focused on student cognitive development. In addition to detailing the relation between humility and strong sense teaching, I will also argue that humility is acquired through the practice of teaching.

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Common notions of teaching circulated in popular culture and implied in much of international educational policy can interfere with an understanding of teaching in a strong sense. Perhaps the most common notion of teaching arises from our deeply ingrained image of the teacher—routinely displayed in television, film and literature, and potentially recalled in our own schooling experiences—as that person standing in front of a classroom directly delivering content to students by talking *at* them as they sit quietly in rows at desks. Another idea that pervades common thinking is that to be a teacher merely requires some specialised subject knowledge. This image is promoted by popular programmes such as Teach for America or the UK’s Teach First—which entice university graduates to go directly into a classroom to teach for a few years, often as a mere stepping stone to more lucrative business management positions. More generally, there is a common view that teaching is not a profession in its own right, which adheres to principles and methods, but rather, is something one does when one cannot enter a real profession, hence the saying “those who can’t do, teach.”

Attempts to get away from these common ideas of teaching have been made by educational theorists using more specialised notions of “good teaching.” However, talk of “good teaching” implies there is also something called “bad teaching.” But to call something “bad teaching” does not tell us what is bad about it. Is it bad because it does not lead to intended outcomes? Or is it because it does not engage learners in critical thinking in the classroom? Or is it because it involves offensive behaviours? Depending on why it is “bad” teaching, it may not actually deserve to be called teaching at all. For these reasons, I argue that we need to circumvent muddled and reified ideas of teaching, and also go beyond the qualifier “good” with reference to teaching by talking about what I will define as “teaching in a strong sense.”

Certain virtues of the teacher are implied by the way I define teaching in a strong sense. Here, I will define it in terms of its relation to the virtue of humility. My discussion connects to the growing interest, especially in virtue epistemology discourse, in the idea that teachers should educate for virtues.² Yet, the focus there has been on the question of what teachers should *do* to cultivate virtues in their

² This is not only the subject of several publications in virtue epistemology (see e.g. Heather Battaly, “Teaching intellectual Virtues: Applying Virtue Epistemology in the Classroom,” *Teaching Philosophy* 29, 3 (2006): 191-222; and, Jason Baehr, “Educating for Intellectual Virtues: From Theory to Practice,” *Journal of Philosophy of Education* 47, 2 (2013): 248-262), but also of a number of international conferences, such as this year’s “Connecting Virtues: Theoretical and Educational Insights” which names “educating to the virtues” as a special conference theme, see <http://connectingvirtuesconference.weebly.com/key-topics.html>.

students. Less considered, however, is the question of what virtues are necessary for the teachers themselves to have in order to cultivate virtues in others.

Only recently, this topic was addressed in an empirical study on "The Good Teacher: Understanding Virtues in Practice," which asked student teachers, newly qualified teachers, and experienced teachers, to identify the six character strengths they believe best describe those of the "ideal teacher."³ Of 546 teacher participants, none of them selected humility, despite this being an available option in the questionnaire.⁴ The report does not make clear why participants selected certain virtues over others. I suggest that one possible reason is that the participants differed in what concepts of teaching informed their selection of the virtues of the good teacher. The failure to include humility could suggest that they did not have a notion of teaching in the strong sense.⁵ What I seek to make clear in what follows is that the strong sense of teaching implies certain kinds of *receptivity to others* associated with humility.

My argument unfolds in three steps. In part one, I discuss the concept of humility with reference to the work of John Dewey, Richard Paul and Dennis Whitcomb et al.'s recent discussion of intellectual humility. I pay particular attention to drawing out an overlooked aspect of humility that I refer to as the *educative* dimension of humility. In part two, I connect this concept of humility to the notion of teaching in a strong sense. In part three, I discuss how humility in teaching is learned in the practice of teaching by listening to students in particular ways. To close part three, I make some connections between my concept of teaching and the practice of cultivating students' virtues. I conclude with a critique of common practices of evaluating good teaching to illuminate what I call the "hard problem" of teacher evaluation.

³ James Arthur, Kristján Kristjánsson, Sandra Cooke, Emma Brown, and David Carr, *The Good Teacher. Understanding Virtues in Practice. Research Report*. (The Jubilee Center for Character and Virtues, University of Birmingham), accessed on March 1, 2016, http://www.jubileecentre.ac.uk/userfiles/jubileecentre/pdf/Research%20Reports/The_Good_Teacher_Understanding_Virtues_in_Practice.pdf.

⁴ Participants could choose from a list of twenty-four character strengths from the Values in Action inventory developed by well-known positive psychologists Peterson and Seligman, see Arthur et al. *The Good Teacher*, 13. Humility is one of the options in this inventory.

⁵ It is important to note that the researchers in this study do explicate their own concept of teaching as connected to *phronesis* (see e.g. Arthur et al., *The Good Teacher*, 8-10 and 26-28) and this in many ways aligns with the concept of teaching in the strong sense that I detail in this chapter. My concern is that while the researchers agree that conceptions of teaching matter (e.g. Arthur et al., *The Good Teacher*, 26) to the debate on good teaching, the methods they used in the study cannot thoroughly tell us whether practitioners interviewed shared the researchers' concept of good teaching.

Part 1: Humility and Its Educative Dimension

In order to get at an understanding of the educative dimension of humility it is first necessary to understand the relational aspects of humility, that is, that it involves a relation to self and a relation to others. The idea that humility involves a self-relation may be seen to be part of the common way we think about humility. Humility can ordinarily be understood as involving a relation to the status of one's own knowledge, ability, truth or understanding, and so in this sense it involves a relation to self. However, John Dewey's discussion of humility expresses the idea that even in this self-relation there is an implicit relation to others: humility is a "feeling of self as related to others."⁶ In this section, I first turn to contemporary virtue epistemology discourse and then back to Dewey in order to further explain how we can understand the relational aspects of humility. I will argue that the relation to self and to other implied in humility are *educative* relations that involve seeing oneself as a learner, and seeing others as those from whom one can learn. I refer to this educative, relational aspect of humility as its educative dimension.

What is the nature of the self-relation involved in humility? While we might agree that humility is not a high estimation of oneself, which could be a self-relation more associated with pride, we could take the other extreme and say that the self-relation involved in humility is one of having a low estimation of oneself, that is, what one knows, understands or can do. Whitcomb, Battaly, Baehr and Howard-Snyder⁷ argue against this more common notion of humility⁸ in their recent discussion of intellectual humility, and in doing so suggest not only a different relation to self, but also a particular relation to others, involved in humility. Their definition of intellectual humility offers initial insight to what I am calling the educative dimension of humility.

⁶ John Dewey, "Psychology (1887)," in Vol. 2 of *The Collected Works of John Dewey. The Early Works*, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 2008), 287. The question whether humility should be called a feeling or a virtue is beyond the scope of this paper. Dewey discusses humility at times as a social or moral feeling and at times, in other ways that connect to understanding it as a virtue (as I discuss below). My point in referencing Dewey here is to draw out the idea of the self and other relations involved in the concept of and expressions of humility.

⁷ Dennis Whitcomb, Heather Battaly, Jason Baehr, and Daniel Howard-Snyder, "Intellectual Humility: Owning Our Limitations," *Philosophy and Phenomenological Research* 91, 1 (2015), accessed July 19, 2016, <https://jasonbaehr.files.wordpress.com/2013/12/ih-owning.pdf>.

⁸ Whitcomb, et al., point out that not only the Oxford dictionary defines humility as "a low opinion of oneself," but that some scholars support such a view as well. See their discussion in "Intellectual Humility," 3-6, and 15.

Whitcomb et al. provide a two-part definition of intellectual humility. Intellectual humility involves on the one hand a consciousness of one's limitations, that they refer to as (i) "a proper attentiveness to one's intellectual limitations." But, it also involves what they call (ii) the "owning of one's intellectual limitations." I will look at each of these aspects in turn and then discuss how their definition helps us understand not only the self-relation, but also the other-relation that is embedded in the concept of humility.

For Whitcomb et al. "proper attentiveness" means that a person has the disposition to be aware of his or her limitation, given a situation in which this is called for.⁹ They emphasise that this does not mean that one has a constant preoccupation with one's limitations.¹⁰ This idea resonates with Richard Paul's definition of intellectual and moral humility, as "having a consciousness of the limits of one's knowledge, including a sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias, prejudice, and limitations of one's viewpoint."¹¹ Paul would also appear to be in agreement with Whitcomb et. al. that humility does not entail a particularly low opinion of oneself, since he states that humility does not imply behaviours of "spinelessness or submissiveness" that may be characteristic of such a person with low self-regard.¹²

However, Whitcomb et al. take their definition of humility a step further by adding that proper attentiveness is not enough to qualify as having intellectual humility. They state that a person with intellectual humility must also *own* her limitations. Their notion of owning is important to my present discussion because, on my view, it points to the ways in which humility includes a particular type of orientation towards others as those from whom one can learn, which can help identify the educative dimension of humility.

Although the authors do not speak about *learning* from others as an explicit part of their concept, their differentiations between a person who is *just* aware of her limitations and a person who is *both* aware of *and* owns her limitations hinges upon the person's interest in change and improvement of his or her knowledge

⁹ Whitcomb, et al., "Intellectual Humility," 7.

¹⁰ *Ibid.*, 17.

¹¹ Richard Paul, "Chapter 12: Ethics without Indoctrination," in *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*, ed. A. J. A. Binker (Rohnert Park: Center for Critical Thinking and Moral Critique, 1990), 189.

¹² Paul, "Chapter 12," 189. See also, Richard Paul, "Chapter 13: Critical Thinking, Moral Integrity, and Citizenship: Teaching for Intellectual Virtues," in *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*, ed. A. J. A. Binker, (Rohnert Park: Center for Critical Thinking and Moral Critique, 1990), 195.

and understanding, and this gets expressed in behaviours reflecting the view that others are those from whom he or she can learn. Let us look at one example they provide regarding the behavioural response of someone who “owns” his limitations. They explain that given a person who is aware “that his most cherished beliefs don’t take into account all the relevant evidence,” there are different possible responses that person could have to this awareness.¹³ A person could be aware of the limitation, but *not* own it, in which case he would “draw inferences from those beliefs as if they were knowledge [and] he doesn’t try to become more informed, and if he were to meet negative evidence, he would dismiss it without a fair hearing.”¹⁴ However, a person who was aware and owned his limitations, according to Whitcomb et al., would “tend to admit their limitations to others, avoid pretence, defer to others, draw inferences more hesitantly, seek more information, and consider counter-evidence judiciously.”¹⁵ Similarly, they refer to expected motivational responses of a person who is only aware of her limitations without owning them would be that she was “unmoved” by the awareness, whereas a person who is aware and owns her limitations could be expected to be “motivated to do something about them, cares about them, and wants to get rid of them.”¹⁶

Whitcomb et al. acknowledge that their notion of “owning limitations” involves a degree of “others focus.”¹⁷ This others focus is summarised as the increased tendency to “defer to others in situations that call upon one’s intellectual limitations; to listen to what others say and consider their ideas, even when one disagrees with them; and to seek help from others more generally in one’s intellectual endeavours.”¹⁸ What they do not explicate—but what I wish to highlight—is that this “others focus” is based in a certain relation to the other implied in the concept of humility: the other is one from whom I can learn, and this means that the other can help me identify my own blind spots, that is, wherein my limitations lie, such that I question my previously established beliefs, ideas and abilities. In this sense, the other is one who can inspire me to transform my understanding of the world and my relation to it.

Thus far, I have sought to make clear my agreement with Whitcomb et.al.’s “limitations owning” view of humility (and with Paul’s), specifically with regard

¹³ Whitcomb, et al., “Intellectual Humility,” 8.

¹⁴ *Ibid.*, 8.

¹⁵ *Ibid.*, 8.

¹⁶ *Ibid.*, 8.

¹⁷ *Ibid.*, 16-17.

¹⁸ *Ibid.*, 17; see also 12-14.

to the relational aspects of humility implied. The self-relation consists in an acknowledgement of one's limitations, and the relation to others is one of seeing others as those from whom I can learn. But this still does not go quite far enough to capture what I am after in referring to the educative dimension of humility.

What I seek to make more explicit in considering the educative dimension of humility is that the acknowledgement of one's limitation already involves a certain kind of learning process. The moment that one acknowledges that one has a limitation, for example, that one does not know how to solve a mathematical problem, or does not understand the political message of Virginia Woolf's "A room of one's own," or more generally cannot grasp the meaning of any new, unfamiliar or different interaction with the world or others, suggests that one has encountered a blind spot. When this blind spot is "revealed" through our interactions with others—their questions, ideas, perspectives, wishes, writings—and as a humble person we acknowledge it as a blind spot, the self-relation that arises through this moment of acknowledgement is already mediated by our interaction with others who are different from ourselves in some way.

The self-relation implied in humility is always already a relation to others; it is a recognition that the other matters, and can affect me; this is precisely what I mean when I say the other is recognized as one from whom I can learn. For this reason, humility is closely tied to other virtues, such as open-mindedness and critical thinking, which presuppose a sense of one's own fallibility and include an openness to alternative viewpoints.¹⁹

Thus, humility, on my account, includes a certain kind of self-relation or orientation towards oneself that can be described as seeing oneself as "capable of learning" and it implies an orientation towards others as those from whom I can learn. This idea of the human being as a learning being is captured in several different philosophical traditions using the (roughly equivalent) terms "plasticity," "*perfectibilité*," or "*Bildsamkeit*" [educability].²⁰ The idea of plasticity, as Dewey

¹⁹ See *Ibid.*, on the connection to open-mindedness, Paul, "Chapter 13," 189-199, on the interdependence of intellectual humility and other virtues, and also William Hare, *What Makes a Good Teacher*, 2nd ed. (London, Ontario: Althouse Press, 1997), who argues both humility, open-mindedness as well as other virtues are necessary virtues of the good teacher. To discuss these other virtues in depth is beyond the scope of this paper.

²⁰ Ideas surrounding human plasticity have a long history in philosophy of education, going back e.g. to J.J. Rousseau's discussion of human perfectibility. In the German tradition, J. F. Herbart's draws on Rousseau as well as on the German tradition of *Bildung* and develops the notion of *Bildsamkeit*. Both Rousseau and Herbart connect this idea to the human capacity to make moral decisions, and therefore relate human perfectibility to what differentiates human beings from other animals. Both thinkers influenced Dewey's notion of human beings as having plasticity, or

terms it, describes the fact that human beings learn from their experiences with the world of objects and with other human beings. This capacity to learn is based in the fact that, as human beings, we encounter things that are different and new in our experience—and in that sense unexpected, e.g. an unexpected idea, object or interaction,—and this can lead us into doubt, frustration or confusion, since we may not yet fully understand what happened or what went wrong. As human beings, we can reflect on this unexpected experience and on that basis make decisions to change the way we think or act going forward; such decisions to change our ways of thinking and doing have moral meaning in so far as they can involve going against self-serving habits or self-interested inclinations.

Dewey draws out this connection between humility and learning when he writes:

Humility is more demanded at our moments of triumph than at those of failure. For humility is not caddish self-depreciation. It is the sense of our slight inability even with our best intelligence and effort to command events; a sense of our dependence upon forces that go their way without our wish and plan. Its purport is not to relax effort but to make us prize every opportunity of present growth.²¹

The passage highlights that the person with humility recognises that it is a fact of existence that we are subject to circumstances beyond our control and that we are fallible even in moments of success. A person with humility does not resign the desire to learn and grow when successful, but rather seeks out more opportunities for growth. Growth, for Dewey, is made possible by our capacity for learning from experience, and our recognition of the interdependence of human beings; it is stifled by egotistical or illusory self-reliance.²² Humility gets its “purport” as he writes, its thrust or spirit, by seeing one’s opportunities for growth, which includes learning from and with others. This again points to the educative dimension of humility that I am after, which is necessary for understanding the connection between humility and teaching in a strong sense. What might it mean for a teacher to have humility, when the “others” involved are those trying to learn something from her? Does having humility in teaching imply the teacher

the capacity to learn in all areas of life. I have discussed this in detail in Andrea R. English, *Discontinuity in Learning: Dewey, Herbart, and Education as Transformation* (New York: Cambridge University Press, 2013).

²¹ John Dewey, “Human Nature and Conduct (1922),” in Vol. 14 of *The Collected Works of John Dewey. The Middle Works*, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 2008), 200.

²² John Dewey, “*Democracy and Education* (1916),” in Vol. 9 of *The Collected Works of John Dewey. The Middle Works*, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 2008), 47-50.

can learn from her students? If so, what might that learning look like? These questions are about the nature of teaching, which I address next.

Part 2: Teaching in the Strong Sense and Its Connection to Humility

There are ways that one could define teaching that would not imply humility. I will address how teaching has been viewed as “knowledge transmission,” and indicate why on that notion, teaching would not imply humility. Then, I will turn to defining teaching in a strong sense, as a notion of teaching that does imply that humility is a necessary virtue of the teacher.

Teaching is sometimes referred to as knowledge transmission. This model of teaching—also known as an input-output model, wherein the “teacher-as-transmitter” puts in the information and “learner-as-recipient” recites it back with accuracy—is part of a deeply ingrained common sense understanding of what teaching is. This notion of teaching has been criticised widely by philosophers of education from different traditions,²³ including Rousseau, Herbart, Dewey, Freire and Peters. Teaching, if understood as a process of the direct transmission of pre-packaged knowledge to the next generation, does not imply the “humility” of the teacher. Rather, since the teacher knows, and the student does not know, then there is no need for the teacher to be aware of the limits of her knowledge, or allow for the possibility of self-deception. On this model, the nature of the teacher-learner interaction also does not provide circumstances in which the teacher would come to know these limitations. On this paradigm of teaching and learning, the teacher’s knowledge is not to be questioned by students. The teacher is the authority in control of knowledge being passed on within the teacher-student relationship and so humility is not necessary. This paradigm relies on particular notions of knowledge as immutable morsels, or as Dewey calls it, “ready-made” knowledge, to be passed on from one person, the teacher, to another, the learner, a passive recipient. Dewey criticises such ideas of the learner (and in turn, the models of teaching they recommend), contending that they rest upon a false idea of the mind as purely receptive, and separated from the activities of the body.²⁴

But the notion of knowledge and the mind embedded in this idea of “teaching” are not the only problems with it; rather there is also a problematic concept of learning it relies on. Learning is viewed as the linear step-by-step

²³ And this, even as they disagree on a positive conception of teaching.

²⁴ Dewey’s criticism of this mind and body dualism is part of his criticism of dualisms in the long-standing tradition of western philosophy, which he discusses e.g. in the first several chapters of *Democracy and Education*.

acquisition of pre-packaged knowledge, which in practice means the memorisation and regurgitation of finished ideas and facts. Such a notion of learning, as I have discussed in depth elsewhere, fails to include the discontinuities that are part of all human learning processes.²⁵ Without a connection to this significant aspect of human learning, it does not provide an adequate foundation for a concept of teaching. Thus, I contend that “teaching as transmission,” even though we nominally refer to it as teaching, does not meet the criteria for even the “weak sense” of teaching (discussed below); rather it is not teaching at all.

Before I provide my positive account of teaching in the strong sense, I will briefly point out a few significant aspects of the concept of learning it is grounded in, especially those that connect to the experience of limitation. On the view I have put forward elsewhere, educative, transformative processes of learning are connected to processes of human experience.²⁶ To learn involves an encounter with something new, and in that sense, different, strange or unfamiliar, otherwise it would not be learning, it would only be reiteration of what one already knows. This encounter can be characterised as an experience of limitation, because it points us to what we do not know, do not understand, or are not yet able to do. There are certain ways of describing our experience of limitation that span at least to the time of Socrates, continuing through classical philosophers of education, e.g. Herbart and Dewey, and further through to contemporary philosophers of education talking about doubt, disillusionment, puzzlement, or even fear as part of learning processes.²⁷ Though these notions refer to different phenomena, they

²⁵ See, English, *Discontinuity in Learning*, and Andrea R. English, “John Dewey and the Role of the Teacher in a Globalized World: Imagination, Empathy, and “Third Voice,” *Educational Philosophy and Theory* 48, 10 (2016): 1046–1064. Accessed September 15, 2016. doi:10.1080/00131857.2016.1202806.

²⁶ English, *Discontinuity in Learning*.

²⁷ See *Ibid.*; see also e.g. John Passmore, “On Teaching to be Critical,” in *The Concept of Education*, ed. Richard S. Peters (London: Routledge and Kegan Paul Ltd., 1967); Fritz Oser, “Negatives Wissen und Moral,” *Zeitschrift für Pädagogik* 49 (2005): 171-181; Nicholas C. Burbules, “Aporias, Webs, and Passages: Doubt as an Opportunity to Learn,” *Curriculum Inquiry*, 30, 2 (2000): 171-187; Dietrich Benner, “Kritik und Negativität. Ein Versuch zur Pluralisierung von Kritik in Erziehung, Pädagogik und Erziehungswissenschaft,” *Zeitschrift für Pädagogik* 46 (2003): 96-110; Käte Meyer-Drawe, “Lernen als Umlernen – Zur Negativität des Lernprozesses,” in *Lernen und seine Horizonte. Phänomenologische Konzeptionen Menschlichen Lernens – Didaktische Konsequenzen*, eds. Käte Meyer-Drawe and Winfried Lippitz (Frankfurt: Scriptor, 1984); Deborah Kerdeman, “Pulled Up Short: Challenging Self-Understanding as a Focus for Teaching and Learning,” *Journal of Philosophy of Education* (2003): 293-308; Andrea English and Barbara Stengel, “Exploring Fear: Rousseau, Dewey and Freire on Fear and Learning,” *Educational Theory* 60, 5 (2010): 521-542.

each point to the fact that our experience of the world includes what I call discontinuities—breaks in our experience, expressed in moments of doubt or frustration. Discontinuity in experience arises due to the fact that the world of objects or others have in some way defied one's expectations, pointing to a blind spot or limitation.

Discontinuity as the experience of limitation is indispensable to learning. If we take for example, Plato's Cave, we can illustrate the productive meaning of discontinuity. The prisoner experiences limitation as moments of alienation, disillusionment and fear as he exists the cave and finds himself confronting new objects and ideas. Viewed in terms of learning, these moments are indispensable in the prisoner's process of coming to understand the new objects and ideas he is encountering.²⁸ These encounters with limitation involve a break with oneself as a moment of interruption, in which we may fall into doubt because the old is no longer sufficient, but the new way of understanding the world has not yet been found.²⁹ But this experience alone is not what we would call learning as a "reflective experience," to use Dewey's term. In reflective learning experiences, the moment of discontinuity sparks thinking and inquiry; our thinking is aimed at seeking to understand the nature of the discontinuity in our experience, such that we seek to understand why we are in doubt, and in what ways what we thought to be true and valid now need to be reconsidered, modified or thrown out. In these moments, one may ask oneself, what is it that I thought before that now does not seem to fit? What ideas were guiding me that now seem in need of modification? Do my ideas, or does something in the world, or do both, need to change?

Learning processes that involve the kinds of critical questioning and inquiry described have what I call two beginnings, each of which are significant for how I

²⁸ For a more detailed analysis of this example see English, *Discontinuity in Learning*, chapter 6.

²⁹ Certainly, colloquially speaking we often use the term learning to refer to experiences that do not seem to be transformative in this way, for example, we may hear the newscaster say "it is raining today," and so we may say that we "learned" it was raining. But what is important here in the way I am talking about learning is its connection to education; learning on this view is not just a one-way street of acquiring knowledge. For Günther Buck, John Dewey and others genuine learning is connected to our experience of the world and this experience involves a back and forth interaction between self and other that is not smooth and continuous rather involves, gaps, interruptions, "bumps in the road" as we try to navigate the world and understand it. This is the kind of learning I see as important when we are talking of learning as an educational process. Mathematics education has developed the term "deep learning" to get at this educative sense of learning.

define teaching.³⁰ The first is a pre-reflective beginning to learning. It occurs when we encounter something unexpected, a new object or idea, and characteristically comes forth in our becoming perplexed or confused. The second beginning to learning is one that we consciously choose. It occurs when we start to transform the pre-reflective interruption in our experience into a question or problem into which we can inquire. On my notion of learning as a transformative process, both of these beginnings are indispensable to the process of coming to understand something new.

This concept of learning takes account of the human experience of limitation as essential to what it means to learn. The experience of limitation has the potential to lead us to call into question the knowledge and beliefs that we previously took for granted as true. Our struggle to understand this experience of limitation can only be considered *productive*, as opposed to *destructive*, if it leads to self-reflection and self-questioning of the taken-for-granted. Such acts of self-reflection, that is, of reflection on what we know and do not know and on our relation to the world, are acknowledgements that *the other* matters in our experience, that the recognition of the connection between self and other is part of what it means to be human.

So what is teaching in a strong sense? As I have sought to show above, humility is generally characterised as having to do with the attention to or recognition of one's limitations, be that in reference to knowledge, truth and understanding, or in reference to moral knowledge and moral decision-making ability. I also argued that learning involves the experience of limitation (a discontinuity in experience) and the reflective engagement with one's experience of limitation. I will now focus on how teaching in a strong sense connects to the learners' experiences of limitation, how this implies the teacher's humility, and finally what makes this idea of teaching "teaching in a strong sense."

When we grasp learning as entailing discontinuity, that is, as involving the learner's encounter with his own blind spots, as well as a reflective inquiry into what that "blind spot" or limitations may consist in, then teaching as a task that connects to learning³¹ can be best conceived of as initiating and engaging

³⁰ English, *Discontinuity in Learning*, chapter 4.

³¹ Peters discusses the important issue around how the concept of teaching is connected to student learning. He notes that teaching can be a task term pointing to a particular activity of teaching, but also an achievement term pointing to the result the teacher is trying to achieve. For Peters, both are connected to the concept of teaching, but the success of teaching is determined by its result in the learner learning something, Richard S. Peters, "What is an Educational Process?," in *The Concept of Education*, ed. Richard S. Peters (London: Routledge and Kegan Paul Ltd, 1967). See my discussion of this in Andrea R. English, "Transformation and

discontinuities in learners' experiences.³² The teacher's task is to make the world educative for learners, and this involves helping them take it apart and explore realms that otherwise may be arbitrarily ignored or intentionally avoided out of fear or lack of interest. To do this, teachers have to learn to cultivate uncertainty and other forms of discontinuities in experience, in productive ways, so that learners begin to question their knowledge and beliefs, and those of others.³³ When construed in this way, teaching is inherently a moral practice in the sense that it aims to teacher learners to think and choose to learn from others. Through the teacher's questions and challenges, learners begin to question their own beliefs, think critically and begin to search for new knowledge.

The task of teaching as being one involving helping learners' identify what they do not know and cannot yet do, means helping them identify limitations. But, this notion of teaching implies that the teacher is willing to run up against her own limitations and engaging in self-critical reflection upon such limitations.³⁴ In order to help others find their own blind spots, the teacher has to challenge them, but she cannot entirely foresee how learners will respond and whether she is presenting them with the right kind of challenge, or whether she is over- or under-challenging them. So the very nature of the task of teaching has a certain level of risk and requires improvisation. When the teacher encounters a limitation in the context of the teacher-learner relation and becomes uncertain, the teacher's uncertainty with reference to *how to teach* is mediated by the problems and uncertainties the learner or learners have with how to learn. This "twofold discontinuity," that is the discontinuities (as doubt, frustration, uncertainty) in the teacher's experience that are mediated by the discontinuities in learners'

Education: The Voice of the Learner in Peters' Concept of Teaching. *Journal of Philosophy of Education* 43, 1 (2009). I will not go further into these details here, rather my focus is to underscore that teaching in a strong sense conceives of the experience of teaching as linking to the learner's experience of learning in certain ways.

³² English, *Discontinuity in Learning*, 80-86.

³³ This task of the teacher relates to what Pritchard calls "epistemically unfriendly environments," which he views as necessary for strong-cognitive achievement associated with gaining understanding, in Duncan Pritchard, "Epistemic Virtue and the Epistemology of Education," *Journal of Philosophy of Education* 47, 2 (2013): 236-247. In my previous work, I examine more closely the types of environments that are essential for challenging learners' in productive ways that involve initiating discontinuities in their experiences in a way that would align with what Pritchard has in mind with his concept, see English *Discontinuity in Learning*, 87-96.

³⁴ Andrea R. English, "Dialogic Teaching and Moral Learning: Self-Critique, Narrativity, Community and 'Blind Spots,'" *Journal of Philosophy of Education* 50, 2 (2016): 160-176.

experience, are an indispensable part of teaching.³⁵ For this reason, teaching, as I define it, is a reflective practice—it requires teachers to become interrupted and think reflectively about the nature of that interruption for the sake of continuing to help others learn. Thus, as a reflective practice, teaching requires what Herbart calls pedagogical tact, a form of *phronesis* as it applies to decisions made in the moment about what to teach and how to teach it to particular learners.³⁶

Given this understanding of teaching, teaching implies humility. It involves being aware of one's limitations, aiming to address them and, in doing so, recognising one's relation to others as those one can learn from, and to oneself as one who can learn. For the teacher, this means seeing students as those from whom she can learn. Specifically, she can and must learn of her own limitations in order to know to what extent she is able to teach particular students a particular subject matter at a particular time. In this sense, she also must see herself as a learner, and this is connected to the fact that humility in teaching must mean *owning* one's limitations. That is to say, that humility in teaching necessarily involves carefully attending to the limitations one has found in the realm of teaching, and trying to overcome them. For example, when a teacher has become very good at teaching English literature, but then has new students in a class that do not have English as a first language, she may recognise her limitation in teaching these students. The limitation of the students—their difficulty in learning English literature—initiates the teacher's recognition of her limitation—her inability to be able to teach these students in this topic.

But mere recognition of her limitation would not be enough to say she has humility. According to the notions of humility I brought together above, to have humility as a teacher would also mean that the teacher owns the limitation, and thus seeks to address it and grow. The teacher could express that she owned the limitation by talking to the students about their specific difficulties and by changing assessment tasks so that they have other kinds of opportunities to show their knowledge and abilities. To have humility involves, as I have said above, the teacher seeing seeing herself as a learner, and seeing the students as others she can learn from. The interactions with the students help her to experience her limitation and initiate thinking around those limitations and, in taking these

³⁵ See English, *Discontinuity in Learning*; 83 and 140; and, Benner, "Kritik und Negativität."

³⁶ See Johann F. Herbart, "The Science of Education (1806)," in *The Science of Education, its General Principles Deduced from its Aim, and The Aesthetic Revelation of the World*, trans. Henry M. Felkin and Emmie Felkin (Boston: D. C. Heath & Co., 1902); Max van Manen, *The Tact of Teaching. The Meaning of Pedagogical Thoughtfulness* (London: Althouse Press, 1991); English, *Discontinuity in Learning*; and, Arthur et al. *The Good Teacher*.

limitations seriously and owning them, she sees herself as a learner who can learn how to overcome these limitations.

Teaching, in the sense described here, is a unique reflective practice and this uniqueness as a reflective practice is what helps clarify why we can call it a strong sense of teaching. Even if pure "transmission" is not teaching at all, there is still the possibility for a weak sense of teaching. Whether the notion of teaching has a weak or strong sense is determined by the role played by the teacher's critical reflection on her own limitations arising from the students' embodied experiences of limitation. A weak sense of teaching, which associates teaching with a narrow focus on students' cognitive development (to the exclusion of other aspects of the students' experiences), may include the view that teachers reflect on their limitations arising from students' cognitive limitations—which come forth as mistakes or misconceptions—in order to find ways to get students to successfully arrive at the defined goal. But in this weak sense case, the teacher's self reflection would be superficial in that it is focused on how to get the student who erred back on the right path (with the path defined by what the teacher had preplanned for the lesson), whether or not the student is gaining understanding. Such weak sense teaching in practice is characterised by closed questions, minimal challenge, and social encounters of students relegated to a secondary role of aiding students' cognitive gains.³⁷

The strong sense of teaching views the teacher's critical reflection on her limitations that arise from the teacher-learner relation (the twofold discontinuities in her experiences) as central. This means in practice that the teacher will initiate students' experiences of limitation, engage those that arise, and create situations in which students' initiate and engage limitation together. This is the same as saying that the strong sense notion recognises teaching as a unique reflective practice, in which the students' experiences of limitations can spark the teacher's experience of limitation (as described in the example of the literature teacher, where the students' difficulty in how to learn initiated a difficulty for the teacher in how to teach). The space of critical, reflective thinking of the teacher in this sense is always aimed at increasing the learner's space of reflective thinking.³⁸ In

³⁷ This view of teaching relates to the idea of teaching being questioned in current research in education, which notes the failure of teachers to view moral and social education as part of their task, and the failure of teacher education programmes to teach pre-service teachers about the broader dimensions of their task (see e.g. Arthur et.al. *The Good Teacher*, 8-9; and Peterson et.al., *Schools with Soul*.)

³⁸ I refer to this as an in-between realm of learning, or what Dewey calls "the twilight zone of inquiry," that is found when our thinking resides between right and wrong, knowing and not

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expressions of humility, teachers open up spaces for their own reflective thinking, which is intimately tied to their ability to open up spaces for students' reflective thinking.

Part 3: Humility in Teaching, Especially Its Educative Dimension, Is Learned by Listening to Students

Paulo Freire refers to humility as an “indispensable quality” of the teacher, but also as a quality “acquired gradually through the practice” of teaching.³⁹ The idea is at first puzzling, for if humility is an indispensable quality of teachers, then from the start one must have humility in order to be able to teach. However, if humility is acquired gradually through teaching practice, then this must mean that one has to be a teacher first and humility would then be acquired in the process of practising as a teacher. With the concept of teaching detailed in part two, I sought to show that humility is indispensable to being a teacher, because humility is implied in the concept of teaching (which is to say that to accept the task of teaching, one would have to be aware of one's limitations, accept new limitations when they present themselves, allow oneself to be corrected by others, locate and acknowledge bias, etc.). Therefore from my foregoing discussion, we can see the validity of Freire's idea that humility is indispensable to teaching.

In this section, I argue that it is not a contradiction to also agree with the second part of Freire's statement, namely, that humility is acquired gradually in the practice of teaching. On my reading, what Freire means is that one should have humility to become a teacher, but gradually, through the practice of teaching one will begin to understand humility in its particular relation to *being* a teacher. Specifically, I argue that what is learned gradually through the practice of teaching is the understanding and ability to express the *educative* dimension of humility. In this section, I will examine how humility is learned within the teacher-learner relationship, wherein teachers are receptive to students through listening. I close the section with a discussion of how such teacher-learner interaction connects to cultivating humility in students.

knowing. For an extended discussion of the “in-between realm of learning” see English, *Discontinuity in Learning*, chapter 4.

³⁹ Paulo Freire, *Teachers as Cultural Workers. Letters to Those Who Dare Teach* (Boulder: Westview Press, 2005), 71.

Listening and Teaching

Teaching in the strong sense, in practice, involves what I have elsewhere described as critical-educative listening.⁴⁰ Before discussing this concept as it relates to humility in teaching, it is helpful to first look at uneducative listening. A teacher who is trying to transmit pre-packaged knowledge to students can be considered to listen in uneducative ways. Their listening is evaluative, focused on mechanically filtering right and wrong answers, a mode of listening associated with what Dewey calls a traditional model of instruction, where the teacher provides the subject matter and “listens for the accuracy with which it is produced.”⁴¹ For example, the teacher may didactically present the “fives” of the multiplication tables on the board and then ask the class “What is five times five?” If a student’s answer is “ten,” it is deemed wrong and the teacher may listen on, but only to wait for a student to arrive at the right answer. This framework for a teacher’s questions is reserved for confirming the acquisition of specific knowledge, so that interruptions, such as differences of opinion or unexpected responses in the classroom, are classified as a lack of understanding, as nothing more than “wrong answers.”⁴²

⁴⁰ See English, *Discontinuity in Learning*, 134-142. Research on listening in education has grown over the past several years, with philosophers of education developing various concepts of listening. In my current Spencer Foundation funded research with colleagues Drs Allison Hintz and Kersti Tyson we are developing a broad framework of listening in teaching that incorporates many recent concept of listening, including critical-educative listening. In this paper, my focus is on critical-educative listening due to its connection to the teacher’s learning around limitations. For some of the recent discourse on listening, see edited volumes, Sophie Haroutunian-Gordon and Megan Laverty, eds., *Listening: An Exploration of Philosophical Traditions*. Special Issue. *Educational Theory* 61, 2 (2011); and, Leonard J. Waks, ed., *Listening to Teach: Beyond Didactic Pedagogy* (New York: SUNY, 2015).

⁴¹ Dewey, *Democracy and Education*, 167.

⁴² Some may call into question whether teaching really still happens in this narrow way anymore and even whether we need to think about the types of practices that may follow from a notion of teaching. But empirical studies show that teachers in schools still often follow this model of what Oser and Spychiger call “A Didactic of Error Avoidance,” wherein the teacher asks a question and goes from student to student until she gets the right answer and then moves on. In such a classroom structure, no one actually learns, the student who answered correctly already knew, and the students who did not, are still left with a lack of understanding at how to get to the right answer, Fritz Oser and Maria Spychiger, *Lernen ist Schmerzhaft: Zur Theorie des negativen Wissens und zur Praxis der Fehlerkultur* (Weinheim: Beltz, 2005), 163; see also Robin J. Alexander, *Towards Dialogic Teaching: Rethinking Classroom Talk*. (Cambridge: Dialogos, 2006).

Understanding the role of critical-educative listening in teaching helps to illuminate how teachers gain humility through the practice of teaching. Through listening, teachers can become open to difference and otherness that arises in the teacher–learner relation. When listening to the learner is aimed at initiating and engaging productive discontinuities in the learner’s experience, it becomes educative. This listening may in fact aide in helping learners understand misconceptions—for example, if the teacher find that her students do not understand how to find one-half of a whole number, she may formulate new questions or tasks for the students to address this lack of understanding—but the aim of critical-educative listening is different than evaluative listening. The teacher’s listening is critical and educative when the teacher is engaged in listening for signs that a productive struggle is taking place in the learners’ experiences, and simultaneously, listening for ways to support learners’ to think about the discontinuity and struggle they now find themselves in and inquire into it, so that they move towards a reflective learning process. On this account, when teachers are engaged in critical-educative listening, they are particularly attuned to interruptions in their own experience, that is, to discontinuities which point them to the fact that they may have arrived at the limit of knowledge or ability, either with respect to how to teach a particular learner or with respect to how to teach more generally. These interruptions in the teacher’s experience can indicate interruptions in the learner’s experiences, identifying to the teacher that the learner has in some way become lost or confused and may not know how to move on. When these interruptions are mediated by what the teacher hears, they can come forth as any unexpected response from a student (such as a difficult question, a challenging viewpoint, or a confusing reply) to the tasks presented in a learning situation.

The educative dimension of humility, as I have been emphasising, refers to the relation to self and other it implies, namely, it implies that the humble person recognises others as those from whom one can learn of one’s own limitations, and it implies that the humble person sees herself as a learner who can productively address the limitations. One fairly straightforward way to imagine that teachers can learn of their own limitations is with respect to the subject matter being taught. This could occur if for example a student offered a different, but equally valid perspective on a topic, or demonstrated stronger reasons for believing something other than what the teacher stated, such that the teacher could show humility by allowing herself to be corrected. This is what Leonard Waks calls “self-critical humility” in teaching, which is mediated by listening to students and

involves allowing students to correct one's views.⁴³ Similarly, William Hare discusses humility in teaching as involving the teacher recognising "the possibility of improving his or her present knowledge and understanding."⁴⁴ But as I will seek to show teachers can also learn from their students with respect to *how* to teach. This involves being attuned to students' thinking and learning within their embodied experiences, including both the cognitive realm of learning particular subject matter, and the social and moral realm of learning interactions that respect and recognise others. What it means to learn from students with respect to their social and moral learning processes is less straightforward, but can be illustrated with an example.

I provide here an example which highlights how the educative dimension of humility is acquired through practice of teaching, specifically by listening to students' discontinuities in social and moral learning processes. The example is from a segment of the documentary of a fifth grade classroom, *August to June: Bringing Life to Schools*. It is important to note that the film was chosen because the teacher in this film, who not only shows the audience inside her classroom for a year, but also discusses her views on teaching, appears to me to have views which align with teaching in a strong sense as I have defined it here. In the film, we see two students who were placed together to work on a science assignment involving building a Lego-like model of a pulley. The two students become frustrated and the camera shows the teacher has sat down to listen to their problem:

⁴³ Leonard J. Waks, "Humility in Teaching." Accessed April 5, 2016. http://www.academia.edu/11700171/Humility_in_Teaching. Waks also discusses what he calls trans-critical humility, in which the teacher offers herself as a resource to others without trying to teach something specific, and without a strict sense of thinking aimed at self-critique. My colleague Dr Waks and I work together on listening as part of the international research network 'Listening Study Group', and recently discovered that we were both working on the topic of humility and its connection to listening and teaching. I am grateful for our recent conversations on this topic.

⁴⁴ Hare, *What Makes a Good Teacher*, 39. Paul provides an example of a teacher coming to improve his knowledge and understanding of physics and in that sense demonstrating intellectual humility. Paul cites a letter from a physics teacher with 20 years of experience, who came to the realisation that he had memorised canned "textbook answers" to students' questions, and that these were insufficient for addressing the students' questions. The students made the teacher start to rethink these answers, and he acknowledged that in his own schooling he had "memorise[d] the thoughts of others" and had "never learned or been encouraged to learn to think for [him]self," see Paul, "Chapter 13," 195. Paul's reading of the example emphasises that the connection to intellectual humility is found in the fact that the teacher began to think about the nature of knowledge, since the answers the teacher was giving to students lacked justification in his own thinking.

Student A: Yeah, but she wasn't trying to understand it, she kept on trying to do it her way.

Student B: I was trying to understand it, it's just you weren't explaining right.

The teacher replies: [*To Student B*] Right now, I need you and Alani to find a way to cooperate to get this done and you need to, that's your job, that is *the* job that you have right now, to prove to each other that you can pass the test of working together, a much more important test to me than whether you do the star test right, I want to see how you learn to cooperate with each other, *that is* one of the big parts of this job.

The two girls are then shown to be fully cooperating together, sharing ideas, physically coordinating movements to hold up the pulley, and singing through the task until its completion.⁴⁵

With reference to this case, I will discuss three ways that we can understand what it means for a teacher to learn to understand and express the educative dimension of humility by listening to students. First, the example illustrates that through listening teachers learn of the particular discontinuities in students' learning processes (which, in this case, was related to them each running up against a social difficulty in working together). The teacher in the example listens in a way that appears to take seriously the discontinuities in the two students' learning processes. In doing so, the teacher gains an understanding of the students' needs with respect to their social and moral blind spots. Her decision to modify the task to become a task around working together and collaborating, rather than primarily a task to learn a scientific concept, reveals her ability to shift her practice to address an oversight in her original design of the task, and transform it to fit the needs of these particular learners at this particular time. In this self-critical shift, which reflects the teacher's pedagogical tact or *phronesis*, the teacher shows an ability to help the learners' where they were stuck, and transform what could have been a "destructive" discontinuity in their experience (which, in this case, can be characterised as a form of frustration that could have not only made them stop learning the science task, but also stop any desire to learn with and from each other) to a "productive," and reflective learning process. Learning humility through teaching then means that teachers learn through the engagement with particular learners; they learn what the limits of their knowledge and ability are in relation to those particular learners. To understand how this works it is helpful to take recourse to Nel Noddings' distinction between

⁴⁵ *August to June: Bringing Life to Schools*. DVD, directed by Tom Valens (Tamalpais Productions, 2013). 1:13-1:15.

assumed needs and expressed needs.⁴⁶ Before a specific encounter with learners, the teacher can and must reflectively try to speculate about particular learners' needs and assume certain needs based on the assumed level of knowledge and ability of the students. But their actual needs are expressed within the interaction; they *emerge through the interaction*. The teacher who is teaching in a strong sense takes this difference between assumed and expressed needs seriously and recognises the need to seek appropriate ways to shift practice in the moment.

Secondly, the example illustrates more indirectly how teachers learn of the *possible* discontinuities in learning—difficulties, doubts, fears, frustrations—that students' can have more generally, either with reference to a particular subject matter or with reference to the social and moral demands of learning. This may look differently depending on the age group of the students, but even in higher education, as groups of students' come together of different gender, race or cultural backgrounds, questions of how to help students learn together and overcome potential bias can become an explicit part of the teacher's task in reaching specific intellectual goals relating to the subject matter. Through the interactions with students, teachers gain a greater sense of how learning tasks can break down when students try to work together. Over time teachers acquire humility by continuing to encounter certain types of limitations, and expanding their understanding of what limitations are possible as they gain an increased understanding of students' needs.

Finally, there is a third way that we can understand how the educative dimension of humility is gained in teaching practice. Through the practice of teaching that is connected to the concept of strong sense teaching, teachers learn to have the *disposition* of pedagogical tact or *phronesis* in teaching. This involves recognising the inherent and necessary limitation that is part of what it means to be a teacher. This inherent limitation is found in the fact that one's own determination of whether an act of teaching is productive and educative must always be tempered by the fact that the learner co-creates the educational situation. What counts as an educational experience has to be negotiated with particular learners. As the particularities of this negotiation become more apparent within the practice of teaching, teachers learn how to better plan for learning situations, and better respond to the unexpected situations that arise in the moment. In considering this, we can understand why Freire states (somewhat cryptically) that humility is expressed as an "uncertain certainty" or an "insecure

⁴⁶ Nel Noddings, "Identifying and Responding to Needs in Education," *Cambridge Journal of Education* 35, 2 (2005): 147-159. Accessed June 1, 2016. doi:10.1080/03057640500146757.

security.”⁴⁷ Reflective, “strong sense” teaching, in practice means learning, over time, how to plan for situations that are educational. In this sense, teachers can gain confidence in their plans. However, at the same time, since educational situations always involve the learners’ contributions, teachers can never foresee entirely what the situations of learning will demand. Taken together, the confidence that builds up through understanding the relation of theory to practice, and the uncertainty that necessarily accompanies it, is part of what makes humility a virtue that is gained gradually through the practice of teaching.

Teaching in the strong sense implies seeing teaching as a task that involves being attuned to the learner as a *person*, and this means understanding students’ embodied experiences, including both cognitive and social-moral needs of students. To say that teachers gain humility over time through a reflective strong sense of teaching means that through their continual engagement with learners, they begin to gain a sense of students’ needs generally. When this understanding of students takes hold, this can lead to profound expressions of humility, like that expressed recently by Steven Strogatz, Professor of Applied Mathematics at Cornell, who confessed in his blog that his lectures were not getting students to engage deeply with the material, and how this led him to completely redesigned his approach to teaching.⁴⁸ The truly reflective teacher also is always aware that she can never be freed from the fact that new, unexpected needs can arise in the moment with new learners. Whether a teacher genuinely addresses the needs of learners, whether her teaching is educative (in that it takes account of those needs and helps learners reflectively address their own limitations), is always negotiated in the act of teaching itself. This act therefore must involve reflective engagement and dialogue with students.

A Note on Cultivating Virtues in Students: The case of Humility

In 1909, Dewey makes an important connection between teaching and its relation to students’ virtues or vices, which is still relevant today. He makes the point that forms of transmission teaching actually contribute to students’ development of egoism. He writes, if teaching is construed as mere handing off of pre-packaged facts, which involves treating human beings as if they are passive recipients of knowledge, that is, as isolated individuals, who learn by way of absorption, and recitation, and also involves the judgement of such learners solely on the basis of

⁴⁷ Freire, *Teachers as cultural workers*, 72.

⁴⁸ See the two full blog posts at <https://www.artofmathematics.org/blogs/cvonrenesse/steven-strogatz-reflection-part-1> and <https://www.artofmathematics.org/blogs/cvonrenesse/steven-strogatz-reflection-part-2>.

their individual output, then their capacity for participation and cooperation is hindered. Such modes of interaction that we call teaching, he contends, actually have the potential to detrimentally change what he calls the "social spirit" of human beings into an individualist way of thinking and behaviour.⁴⁹

This sentiment relates to a more recent point by Paul, who notes the connection between passive learning and the development of students' intellectual arrogance, that is, that they come to believe "they *know* a lot about each subject, whether or not they understand it."⁵⁰ He argues that schools and teachers do not promote intellectual and moral virtues when they focus on 'speed learning' and students gaining superficial chunks of compartmentalised knowledge. Like Dewey, he underscores that in fact, such ways of structuring learning processes lead to "intellectual arrogance" because they discourage "intellectual perseverance and confidence in reason," "provide no foundation for intellectual empathy," and instead promote students' "taking in and giving back masses of detail."⁵¹

These statements are still relevant today as educational policies around the world are pushing teachers and schools to quickly get students towards predetermined outcomes measurable on standardised tests. Even if teachers themselves have different theoretical understandings of what teaching is, in practice, such policies force teachers to comply with mechanical, unreflective modes of 'teaching,' which at its most extreme, as I have argued above, results in activities that would not deserve to be called teaching at all.

With Dewey and others helping us to understand how teaching as a mechanical, transmissive task can cultivate students' vices—such as arrogance—can we conclude that reflective, dialogic forms of teaching described above, which in theory and in practice strongly oppose mechanical transmissive teaching, contribute to cultivating students' virtues, such as humility?

Answering this question has not been the focus of this paper, however, there are certain conclusions relating to this question implied by my above discussion above. First, it would be wrong to conclude that because a teacher has humility, her students' can gain humility by simple imitation. In a strong sense of teaching, teaching virtues is always indirect; virtues cannot be directly taught, nor cultivated through the disciplined imitation of certain behaviours. Imitation of behaviours associated with humility does not imply understanding, and being

⁴⁹ John Dewey, "Moral Principles in Education (1909)," in *The Collected Works of John Dewey. The Middle Works*, edited by Jo Ann Boydston (Carbondale: Southern Illinois University Press, 2008), 275-279; see also, Dewey, *Democracy and Education*, 44.

⁵⁰ Paul, "Chapter 13," 192.

⁵¹ *Ibid.*, 192; see also 191-193.

virtuous, as I view it, requires certain understandings of self and other.⁵² I have sought to show that part of the teacher's task is to help the learner identify his or her own limitations, and not to see these as end points to the learning process or as signs of not learning, but rather as part of the learning process itself. In that process, the learner learns of herself as a learning being, which means that she learns that she can move past unexpected obstacles. She learns that even though she cannot overcome the fact that she is subject to circumstances beyond her control, she can create aims reflectively in order to thoughtfully and critically engage with the world and others. In doing so, the learner also learns to see others as those she can learn from, and gains a sense of her own fallibility. When learners learn to grasp the equality between human beings as beings that can and must learn from each other, they begin to understand the type of respect that, as Freire says, is part of humility.⁵³

When teaching aims to support learners in identifying and engaging discontinuities in personal and social experience, and also create opportunities for them to productively do so, then learners learn humility not only as an awareness of limitation, and not only as involving motivation and action to inquire into that limitation, but they also learn humility in its educative dimension; they learn that others are those from whom they can learn. In this sense, we can say that a strong sense of teaching contributes, rather than hinders, the growth of the social spirit in human beings—the spirit of interconnectedness, and interdependence upon others as inherent to what it means to be human.

Conclusion: The Hard Problem of *Teacher Evaluation*

It would be hard to argue against the fact that not only in primary and secondary education, but also in higher education, there needs to be systems in place for the evaluation of teaching practice. Increasingly around the world, primary and secondary teachers are being subjected to high-stakes evaluation methods, which tie the efficacy of their teaching to students' scores on standardised tests.⁵⁴ Of course, this evaluation approach has not yet come into place in higher education,

⁵² It is beyond the scope of my argument to defend this point here.

⁵³ Freire, *Teachers as cultural workers*, 71-72.

⁵⁴ "The Good Teacher" study mentioned above, reports that these strict accountability measures are contributing to hindering teachers' good practice (Arthur et al., *The Good Teacher*, 27-29). For an interesting discussion of many of the problems and complexities with current practices of teacher evaluation in schools see, Julie Cohen and Dan Goldhaber, "Building a More Complete Understanding of Teacher Evaluation using Classroom Observation," *Educational Researcher* 45, 6 (2016), DOI: 10.3102/0013189X16659442.

but even there, evaluations of teaching on the basis of general categories at the end of a course are increasing in popularity. Such evaluations ask students to rank the course, e.g. according to whether it enhanced one's skills and abilities.⁵⁵ Looking at the direction of higher education policy in the UK, which will implement the Teacher Evaluation Framework (TEF),⁵⁶ there is strong indication that these and other such evaluations of teaching will affect higher education hiring and promotion.

There are at least two problems with these common approaches to teacher evaluation. One problem is whether they in fact measure what a student has learned. But setting that aside, the more pressing issue for the present discussion is that these methods evaluate teaching on the basis of its relation to the ends or results of a student's learning process. So what is the problem? Shouldn't we say that to some extent teaching has to guarantee certain learning outcomes, if it is to be called teaching at all?

This brings us to what I call the "hard problem of teacher evaluation" (a loose analogy to Chalmers' "hard problem of consciousness"). As mentioned, a common way to evaluate teaching is to look at it from narrowly defined ends, specifically from the positive outcomes it "produced" in the learner. We could say that if we just used better measures of student learning, e.g. more complex evaluations of critical thinking, and other assessments of student thinking and understanding at the end of a lesson or course, then this would "solve" the hard problem and give an accurate evaluation of whether the teaching was in fact good. But such evaluations involve inferences and these are necessarily limited; students' lack of understanding in a subject area does not necessarily mean that it was a result of bad teaching, just as students' increased understanding does not necessarily mean that it was the result of good teaching.⁵⁷

⁵⁵ This question was put forward as part of a higher education teacher evaluation system called Evasys.

⁵⁶ On this framework see DBIS, *Teaching Excellence Framework: Technical Consultation for Year Two* (London: Department for Innovation, Business and Schools, 2016).

⁵⁷ As one math study shows in what it calls "the learning miracle", students of teachers who teach mathematics falsely can still gain mathematical understanding, see Marja van den Heuvel-Panhuizen, "The Learning Paradox and the Learning Miracle. Thoughts on Primary School Mathematics Education," *Journal für Mathematik-Didaktik* 24, 3 (2003): 96-121; see also a discussion of this case in Sönke Ahrens, "Die Unfähigkeit des Lehrmeisters und die Wirksamkeit des Lehrens," in *Philosophie des Lehrens*, eds. H-C. Koller, Roland Reichenbach and Norbert Ricken (Munich: Ferdinand Schöningh Verlag, 2012). Hare makes a similar point in relation to the virtue of open-mindedness, stating that just because a student becomes open-minded, we cannot conclude that this was a result of his or her teacher being open-minded, see Hare, *Open-Mindedness and Education*.

As discussed, teaching in the strong sense necessarily links to learners' processes of experience and thinking, especially to their experience of limitation and their inquiry into that limitation that takes place in time through embodied interactions with subject matter, teacher and peers. What makes teaching *teaching* is the very ways a teacher links to these processes in the situations that they occur. Thus evaluating teaching from the end of a process—really a collection of processes that involve complex interactions and relations with oneself and others—is necessarily limited. This approach overlooks the process of teaching that, as I have shown, involves self-reflection on limitations, self-questioning, responsiveness, listening and associated virtues of the teacher—indispensable features that are more difficult to observe and measure. The hard problem of teaching evaluation is then the problem of evaluating the *process* of teaching, a process that is in a certain sense *invisible* while a teacher is teaching, and in a certain sense *erased* once the learner has learned. It is invisible because much of what counts in the kinds of teaching that promote transformative learning and understanding is in the teacher's own thinking processes that lead her to make certain decisions over others (whether that is in planning stages or in changing course during a lesson through the use of practical wisdom). It is *erased* because, as mentioned, the results of learning do not necessarily reveal the path of teaching that led to them. They do not reveal the teacher's humility or other essential virtues in teaching such as empathy, open-mindedness, and imagination. Certainly, I am in favour of complex measurements of student learning that can get at students' ability to think critically and creatively and demonstrate understanding. But, if we value virtues in teaching, then we have to also value the processes of teaching and how these link to processes of learning.

To approach this hard problem, we have to have an explicit philosophical concept of teaching to guide any empirical evaluation of teaching practice. This concept, the indicators used to identify its expression in teaching practice, and how these are analysed, must remain open to debate. In this sense, it is a task of philosophy of education to squarely face this hard problem.⁵⁸

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