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Modelling the Learning-Teaching Nexus: the communicative place where learning and teaching meet

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This paper introduces a model developed to expand our understanding of the Learning-Teaching Nexus (LTN), the place where learning and teaching meet. The LTN model depicts teaching and learning as simultaneously individual experiences, shaped by individual epistemological, contextual and situational assumptions, and a shared communicative place, where a speaker/writer and a listener/reader attempt to reach shared understandings. Incorporating two disciplinary perspectives: Higher Education and Linguistic Pragmatics, mediated by Gadamerian hermeneutics, this model provides both a way of thinking about the LTN and a methodological framework for empirically investigating different places in which learning and teaching meet.

Keywords: Learning experience, Teaching experience, Communication

Introduction

Higher Education is a rich source of research material and ideas, and higher education researchers have studied the experiences of both students and academics in order to better understand why students learn differently from one another, and why academics teach in such a variety of ways. As a result there is now a large body of literature which has found that student learning is an individual experience affected by conceptions or beliefs about knowledge (e.g. Perry, 1970; Schommer, 1994), learning (e.g. Entwistle & Peterson, 2004; Säljö, 1997), teaching (e.g. Bradbeer, Healy & Kneale, 2004; Kember, 2001). The learning experience has been found to be further affected by disciplinary Ways of Thinking and Practising (Anderson & Hounsell, 2007; Entwistle, 2009); assessment (e.g. Biggs, 1999), and the learning situation (e.g. Ashwin, 2005; Bligh, 2000; Mann, 2000), described by Marton, Runesson and Tsui (2004, p. 3) as “the space of learning”. Student conceptions of these aspects lead them to adopt different approaches (deep, surface or achieving), and to be aware of different aspects of the same experience (Marton & Booth, 1997), leading to different learning experiences and outcomes.

In parallel research, academics’ approaches to teaching have also been found to relate to their conceptions of knowledge (Prosser, et al., 2005), teaching (e.g. Kember, 1997), and learning (e.g. Bruce & Gerber, 1995). Disciplinarity (e.g. Becher & Trowler, 2001) has been found to strongly influence teaching, and the context in which teaching occurs has also been found to affect approaches (e.g. Ashwin, 2006; Weller, 2011).

Despite parallel findings for academics and students, researchers have generally treated teaching and learning as a “divided field” (Knewstubb & Bond, 2009, p.179 ) and to date,
"studies which show relations between what teachers do and what their students do are uncommon in higher education" (Trigwell, 2006, p. 113). The studies which do address teaching and learning together tend to focus on self-reported approaches with little or no attention paid to what is being taught and learned (e.g. Gow & Kember, 1997; Trigwell, Prosser & Waterhouse, 1999). The claim that teaching and learning are related in any way seems somewhat tenuous. And yet, it seems a fair assumption that good teaching leads to good learning. In fact this assumption is essential for the work of all those involved in education.

**Conversation and Communication**

The teaching-learning relationship has been described as a conversation (Ballantyne, Bain & Packer, 1999; Laurillard, 2002; Prosser & Trigwell, 1999), with Diana Laurillard (2002) developing a conversational framework for the teaching-learning relationship centred on interaction, feedback and action. However, Knewstubb and Bond (2009) argue that there is an important distinction between conversation and communication. As used in the higher education literature, conversation is focused on turn-taking and feedback. It is an activity-based notion. There is no focus on how or whether meaning comes to be shared between a speaker and a listener. In this paper, as in Knewstubb and Bond (2009), the term “communication” is used to mean the way that a speaker and listener come to a reasonable representation of a shared understanding of the speaker’s meaning. That is, how a speaker’s meaning is made “mutually manifest” (Sperber & Wilson, 1995, p.42).

**Two examples of models relating learning and teaching**

**The Conversational Framework (Laurillard, 2002)**

Laurillard’s Conversational Framework provides an archetypal example of higher education scholars’ understanding of teaching and learning as communication. According to Laurillard’s Framework, the teacher and student interact through description, feedback and observable student activity. This interaction creates a conversational relationship between what is taught and the outcomes of learning.
The Conversational Framework is important because it allows academics and researchers to explore a variety of types of interaction, and emphasises the relationship between what teachers think and do and what students think and do. However, the arrows used to represent the process of creating the interaction appear to imply that meaning can be transferred using language or symbols as a kind of ‘conduit’- that language can be used to transfer speaker meaning (teacher or student) in a non-problematic way. Assuming that the teacher and student share a language background, each will understand the meaning conveyed linguistically by the other. Meaning may be distorted by the student or teacher, because of the internal conceptions through which the conversation is filtered. This understanding of conversation is problematic because, as I explain below, from a linguistics perspective linguistic meaning is as much a mental construct as any other kind of knowledge, and therefore cannot be transferred.

**Alignment model of teaching effectiveness (Wulff, 2005)**

Donald Wulff, proposes that teaching is effective when the teacher, student and content are aligned. In Wulff’s model the lecturer, student and content are brought into alignment through a series of social and communicative dimensions. Through this alignment process student learning occurs. Again arrows are used to link the dimensions as a type of linear cause-and effect. As in Laurillard’s framework, there is the notion that something is transferred. Wulff’s model uses communicative aspects to link the student and the teacher. However, how that happens is left vague.
Laurillard and Wulff both point to communication or conversation as being key to the relationship between teaching and learning, with Laurillard focussing on the conversational procedure, while Wulff takes a more social holistic view. These models are important because they attempt to link teaching and learning and to identify the aspects which will support an effective teaching-learning outcome, indicating that teacher-student interaction is key to effective learning outcomes. Laurillard’s framework shows the interaction of internal conceptions and conversation as both shaping how teaching and learning conversations are shaped by these conceptions, and how conceptions in turn can be changed through the conversation. Wulff’s model, in comparison, emphasises the importance of teaching and learning becoming aligned through a social communication process so that ideas about the subject come to be shared. However, in both models simplification of the communicative process creates a problem, which can be summarised as how can we explain the case where a student who has complex (‘good’) approaches and conceptions (learning) appears to infer something completely different from what the apparently ‘good’ learning-centred lecturer intended, even after extensive interactive conversation?

Because higher education models often develop from research which focuses on either teachers or learners, perhaps a different approach to the teaching-learning relationship is required. Duff suggests that higher education could profit by using a “distinctive communication perspective on higher education” (Duff, 2003, p. 268). But what might such a perspective look like? One discipline which deals explicitly with interpersonal understanding is linguistic pragmatics, which focuses on the internal construction of speaker meaning through listener inference.

Linguistic pragmatics and communicative relationships
Grice and the Cooperative Principle
Linguistic pragmatists investigate why communication succeeds or fails. Paul Grice proposed that communication is governed by the Cooperative Principle: “Make your contribution such as it is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice, 1989, p. 26). Whatever the communication mode, meaning is not transferred through language. Rather linguistic utterances are produced by a speaker to act as clues from which a listener attempts to construct meaning, or “implicatures” appropriate to the context. This is made possible by a shared acceptance that communication is a cooperative activity. In most communicative situations we are not trying to create problems for our interlocutors, but to come to a shared understanding. This is arguable even more the case in education settings in which the purpose of teaching-learning relationships is developing understanding. The Cooperative Principle is underpinned by four Cooperative Maxims: Quality, Quantity, Relation and Manner.

Relevance Theory
Sperber and Wilson (1995) argued that Grice’s Maxim of Relation “Be relevant” subsumes the other maxims of the Cooperative Principle. According to Sperber and Wilson, language is a tool used by a speaker to draw the listener’s attention to something the speaker thinks will achieve some relevant cognitive effect in the listener. Speakers use ostensive stimuli (words, gestures, symbols, even silence) to attract the listener’s attention. The listener then attempts to create a meaningful context in which the ostensive acts of the speaker would be relevant to that listener.

Relevance Theory rests on the communicative principle that “every ostensive stimulus conveys a presumption of its own relevance” (Sperber & Wilson, 1995, p. 158). That is, if I speak, write something, grab your arm, point, or obviously try to communicate with you in any way, I am implying that what I am doing is worth your attention and will be relevant enough to make it worth your time attempting to understand my intention or meaning. The listener, reader or communicative observer in turn uses a two-part cognitive process to make sense of the speaker or writer’s ostensive act. Because we alternate our roles as speaker and listener, when speaking, we understand the communicative processes involved and attempt to manipulate these to best effect.

a. Follow a path of least effort in computing cognitive effects. Test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.

b. Stop when your expectations of relevance are satisfied (or abandoned). (Sperber & Wilson, 1995)

First the listener must identify the range of possible meanings particular ostensive acts might have, in the order of accessibility. We will always start with the most accessible potentially relevant meaning first. There are usually numerous possibilities and combinations of possibilities available as we try to understand a speaker/writer. But rather than comparing them all, in most situations we stop as soon as we construct a meaning which makes sense to us. If we do need to test multiple possibilities, we may decide the effort being used to create a sensible meaning is too high for the possible benefit from continuing. In short, Relevance Theorists believe humans are wired to seek relevance in their environment, but to expend as little energy as possible in processing relevant information. The more effort required, the less
relevant communication will seem to the listener/reader. A linguistic approach to the teaching-learning relationship provides another way of explaining why it is that students and lecturers understand or misunderstand each other in so many ways.

It is not always the academic who is the speaker, as Laurillard’s Framework shows. At times the lecturer must infer the meaning of a student’s ostensive acts, for example, in classrooms or written assignments. However, in using a linguistic perspective focus shifts from the internal world of the teacher and student, the conceptions and beliefs which form such an important context for the things that are taught and learned in teaching-learning situations. Long-standing higher education research indicates that these epistemological beliefs are vitally important for individual teaching and learning processes and outcomes. Therefore the LTN model addresses both educational and linguistic pragmatics perspectives.

**Modelling the Learning-Teaching Nexus**

**A problem of ontological perspectives**

The educational and pragmatics perspectives outlined above are based on opposing ideas about the relationship between the individual and the world. Pragmatics theories involve a view of the world that is dualistic. According to this view, the individual and the world are separate with a physical space where acoustics exist separately from the ways in which they are experienced. Although pragmatists argue that interpretation and inferencing is cognitive and is thus part of our internal world, from an empirical position, researchers can stand on the outside of a communicative situation and decide what was being said or implicated and what should have been inferred, without asking participants involved in the communicative situation.

On the other hand, many of the studies which investigate student and academic experiences adopt either a constructivist perspective, in which learners create individual knowledge (e.g. Biggs & Tang, 2011) or a non-dualist (e.g. Marton & Booth, 1997; Prosser & Trigwell, 1999) perspective, in which students’ and lecturers’ experiences of teaching and learning are seen as an internally constituted person-world. Researchers adopting this perspective interpret participants’ descriptions of their own experiences. In this case the world of the researcher and of the participant she studies may be very different things, because of the different experiences that inform each person’s experience. These different perspectives have equal validity. Such incommensurable ontological perspectives cause problems when trying to develop an interdisciplinary model. For researchers using the model as a framework, the ontological clash also raises methodological issues. There appears to be no way in which the world of the individual and the world of communicative pairs or groups can be studied in a single place.

This clash in perspectives was described by the hermeneutic philosopher, Hans-Georg Gadamer: “It is clear that the lifeworld [individual experience] is at the same time always a communal world that involves being with other people as well. It is a world of persons and in the natural attitude the validity of this personal world is always assumed” (Gadamer, 1989, p. 247). Gadamer argued that humans exist both in individually experienced worlds and in a communicatively shared world. When we interact in the “communal world” both the dualistic and non-dualistic worlds are present, and accepted. Using Gadamer’s insight, the LTN model addresses each ontological perspective in turn and then links them through Gadamer’s
proposed solution to the tension, the notion of “horizons”, and the hermeneutic notion of parts and wholes forming internally consistent gestalts for an individual. Such a mediated interpretive stance has practical implications both conceptually and methodologically.

Rather than adopting a single perspective, the LTN model comprises three perspectival stages: the individual’s experience; the communicative space of teaching and learning; and the embedding of the individual within the communicative space using the individual’s “horizon” as a mediating factor.

The first stage of the LTN model represents the non-dualistic world of the individual, whether for a lecturer or a student. Rather than using the terms ‘beliefs’ or ‘conceptions’ from the higher education literature, I use the term “assumption”, taking Sperber and Wilson’s (1995, p. 2) definition of the term as “thoughts treated by the individual as representations of the actual”. These are assumptions that students and lecturers used to support their understanding of the teaching and learning experiences they have in given situations. There were three types of assumptions in focus at this point, (1) epistemological assumptions (assumptions concerning teaching, learning and knowledge for an individual), (2) contextual assumptions (disciplinary/subject and assessment assumptions, which constrain the way epistemological assumptions are manifested generally), and (3) situational assumptions (situational contexts which may create different expectations of the role of teaching and learning, or the type of knowledge being developed).

The second stage of the LTN concerns communicative experiences. Here the focus moves to comparative understandings of a text that has been generated by a speaker, and which is interpreted by a listener. The communicative stage is dualistic in the sense that ostensive acts are treated as existing separately from either the speaker’s or the listener’s described experience. In the third stage of the model, the notion of “horizons” is used to mediate and integrate the non-dualistic experienced world of the first stage with the dualistic communicative space of the second stage, embedding the individual experience within the communicative context. This allows us to bring into simultaneous focus the individual experiences of the lecturer and student, and the communicative nexus point where teaching and learning meet.

Stage One: Individual (non-dualistic) assumptions

The first three dimensions of individual assumptions are the central focus of much higher education research, and are treated as related in this model. Knowing is treated here as Entwistle’s (1976) ‘accusative’ of both learning and teaching. For both the academic and the student, teaching is seen as supporting learning, so depending on what learning is seen to be the student will make assumptions about what the teacher will do. Likewise, the academic will believe their teaching should lead to learning, and therefore have assumptions about what students will do in response to the teaching approaches the academic uses. These three dimensions are the central set of assumptions in play in individual experiences of either learning or of teaching.
Epistemological assumptions are further defined by other assumptions that constrain the particular ways our epistemological assumptions play out. Contextual assumptions are those assumptions that constrain the epistemological assumptions that teachers and students adopt at an overarching level (that is they constrain epistemological assumptions regardless of the particular teaching-learning situation in which an individual happens to be engaged). Two contextual dimensions identified as being of particular importance by researchers are discipline (e.g. Becher & Trowler, 2001; Entwistle, 2009) and assessment (e.g. Biggs, 1999; Samuelowicz & Bain, 2002). These have been seen to constrain (or reflect) the knowing dimension, in that they determine what counts as valid knowledge, how knowledge is structured, what is valued as evidence of knowing, and how knowledge is communicated.

Situational assumptions are the assumptions academics and students use to determine how they teach and learn in particular physical, temporal and social contexts. It has been broadly established that academics teach and students learn differently in different situational contexts, with different situations having associated assumptions of what constitutes relevant
knowledge (content and structure), and effective teaching and learning approaches, (e.g. Bligh, 2000; Entwistle, 2009). In the LTN model, situational assumptions are categorised as social texts (one speaker, audience have limited right of reply, but reply is possible, e.g. lectures, class emails, seminar presentations), social interactions (many speakers, many listeners, e.g. tutorials, online discussion boards, chat sites, small group assignments), and independent texts (the writer/speaker is not able to directly interact with the reader/listener, e.g. textbooks, videos, documents). An individual’s epistemological assumptions may manifest differently in different situational contexts.

![Diagram](image)

**Figure 5: Individual epistemological, contextual and situational assumptions**

For example, a lecturer might foreground teacher-centred teaching assumptions in a lecture, where he views teaching as presenting his own perspective to engage students. At the same time his assumptions about teaching related to readings might involve presenting diverse authorial arguments from which students would experience the debate of others. These assumptions might differ again from the assumptions concerning teaching and learning in tutorials, which might seem as interactive. These epistemological, contextual and situational assumptions (parts) combine in different ways for each person to provide an internally consistent individual perspective (whole). Finally, the individual’s assumptions are enclosed to indicate that the experienced world of the individual is inaccessible to anyone else, whether their communicative partner, or to the inquisitive researcher. The only access another person has to the individual’s experienced world is through interpreted observation or inferred meaning from that individual’s ostensive acts.

**Intra-group and inter-group comparisons of assumptions**

This approach to modelling the non-dualistic world makes it possible to draw different types of comparisons between individuals and the different types of assumptions that individuals describe. In higher education we often find intra-group (comparisons of different lecturers’ assumptions, or different students’ assumptions). This model allows us to see the complexity at play within groups. Assumptions of individual lecturers and individual students might align and diverge in different ways, and may not form the neat hierarchies found in the literature.
However, the individual experience model allows us to make not only intra-group but also inter-group comparisons. It becomes possible to conceptualise and compare a student’s and a lecturer’s assumptions. In many ways this comparison might be seen as being more important than the intra-group comparisons to which we are accustomed, because it is surely whether a lecturer and student share assumptions and understandings that matters in any deliberately structured (or not) teaching-learning situation?

**Stage Two: Communicative alignment (dualistic)**

In the second stage of the LTN model, the enclosed worlds of the lecturer and student are depicted inside an externally shared communicative space. Here the Principle of Relevance mediates the enclosed worlds: cognitively a listener seeks to make any experience relevant, and the speaker seeks to manipulate that principle in order to be understood. This will hold whether it is the lecturer presenting a lecture, or a student asking and answering questions or submitting assessment. As the speaker, each will try to communicate in a way which will make their meaning optimally relevant for their addressee for the least possible inferencing effort. This process, as we saw above is carried out through ostensive acts which are (in theory) externally observable to others who are within the situational context, either as participants or (as with researchers) uninvolved observers.

![Figure 6: The communicative space of learning and teaching](image)

The shared communicative space is not bounded by time or physical location. For example, in asynchronous online communication, email, or fifty-year old textbooks, the communicators may ‘interact’ hours, days or even decades apart. It is the Principle of Relevance and the intention to communicate which creates the shared learning-teaching place, in which speakers and listeners attempt to develop aligned understandings of the speaker’s intended meaning. Aspects of communicative alignment and misalignment include: intended and attributed speaker intention; motivation and attributed speaker motivation; action and attributed action; reference and disambiguation of reference. Alignment in these aspects in turn leads to aligned or divergent communicative experiences.

**Stage Three: The Learning-Teaching Nexus (movement between dualistic/non-dualistic)**
The final stage of the LTN model brings together the non-dualistic world of the individual and the shared communicative space, using the hermeneutic notion of “horizons”. The relationship between a student or teacher and their experienced world is individual and cannot be directly ‘shared’ with another (Reddy, 1979). However, in teaching or learning communicatively, a student or lecturer will attempt to extend beyond their own experiential “horizon” (Gadamer, 1989) to understand the experiences and intentions of others.

![Figure 7: A model of the Learning-Teaching Nexus](image)

In order for the Principle of Relevance to be activated, there needs to be an initial effort to understand and be understood. This effort can be represented as the hermeneutic ‘horizon’. Conceptually, the horizon acts as a useful mediating tool, because it does not challenge the idea of the enclosed individual experience, but explains our attempt to reach beyond our own experience to understand those of others with whom we share a situational context. In the LTN model, the teacher’s and student’s horizon is represented by a dotted line, not to represent permeability and linguistic transfer, but rather to imply a flexibility of the individual’s horizon: a capacity and intention by the student and the academic to stretch their own assumptions and understandings, and to attempt a “fusion of horizons” with their communicative partner.

**Conclusion**

Moving through the stages of the LTN model, a number of aspects change: the ontological perspective – the movement between an internal non-dualistic view of an individual’s experienced world and a dualistic perspective of the shared communicative space which teachers and learners inhabit. Different theoretical tools are required in each stage, as are different methodological approaches to studying the incommensurable aspects of the teacher-learner relationship.

The Learning-Teaching Nexus model presented in this paper provides a place in which higher education thinkers, practitioners and researchers can extend their “ways of thinking and practising” (Anderson & Hounsell, 2007). It allows us to view the teaching and learning relationship as simultaneously an individual experience, affected by our epistemological,
contextual and situational assumptions, and as a shared communicative experience affected by our communicative assumptions of relevance and the processes we use to articulate and infer meaning. It does not seek to simplify either the individual experience, or the complexity of communication itself, something often overlooked in higher education research.

Structuring the model in layers is useful in another way also. It provides the basis for a staged methodological approach for empirical investigation of the Learning-Teaching Nexus, as has been reported elsewhere (Knewstubb, 2012). Adopting methodological tools with different lenses may indeed help us learn more about the place where learning and teaching meet.

References


Kember, D. (2001). Beliefs about knowledge and the process of teaching and learning as a factor in adjusting to study in higher education. Studies in higher education 26, (2), 205-221.

