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Exploring the nature of disciplinary teaching and learning using Legitimation Code Theory Semantics

Sherran Clarence

Centre for Higher Education, Research, Teaching and Learning (CHERTL), Rhodes University, Grahamstown, South Africa

ABSTRACT
Teaching and learning is a growing field of research and practice globally, and increasing investments are being made in developing academics as teachers. An inability to adequately account for disciplinary knowledge can lead to academic development inputs that are unable to fully address the needs of students, educators, or disciplines themselves. Semantics, from Legitimation Code Theory (LCT), provides insight not just into the hows of pedagogy but also the whats and whys, particularly the ways in which knowledge needs to be connected up in meaning-making. This paper argues for the use of semantic profiles to open up conversations with educators about teaching, learning, and the nature of knowledge in their disciplines. It raises important questions about the practical uses of LCT tools in higher education and shares initial ideas, informed by lecturer feedback in one case study, of how these tools can be used in academic staff development.

Introduction

Teaching and learning is a growing field of research and practice globally (Manathunga 2006; Quinn 2003, 2012), and in South Africa the Department of Higher Education and Training (DHET) is investing increasing amounts of money in developing academics as teachers, and developing university capacity to support academics in their pedagogic practice (CHE 2015; DHET 2014). Several contemporary approaches, such as 'inquiry-focused', 'authentic' (Bozalek et al. 2015), and 'student-centred' (Baeten et al. 2010) teaching and learning, are often unable to fully account for the ways in which disciplinary knowledges, conventions and practices influence pedagogy and student engagement in learning. This tends to be due to a conflation of pedagogic and epistemic constructivism in enacting these approaches to teaching and learning (Kotzee 2010), which may obscure differences between disciplinary knowledges and practices. This tendency is problematic, because without paying attention to knowledge in the disciplines, approaches to teaching and learning can risk being unable to fully address the particular needs of the students, of the educators, or of the disciplines themselves (Jacobs 2007; Quinn 2003). One key worry here is that in these situations, many students may continue to fall short of expectations,

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leading to universities placing the blame for failing onto them or prior schooling, rather than confronting the challenges of enacting disciplinary pedagogies and working with specific bodies of knowledge (see Quinn 2012).

A significant focus of academic development[1] work (also called educational development in UK and Antipodean literature) in terms of working with educators and tutors is enabling students' critical engagement with disciplinary knowledge and ways of knowing, such that students can begin to effectively understand, reproduce and eventually create new disciplinary knowledge in relevant and appropriate ways. Yet, research points out that many approaches to academic development tend to be atheoretical or at least light on theory, and where theory is used it tends towards individualistic views of students themselves, and of the nature of learning, rather than situating student learning more firmly within larger systems of meaning within higher education (Haggis 2009; Manathunga 2006, 2011; Quinn 2012). Case (2013, 142–3, emphasis in original), for example, argues that the goal of 'true *higher* education' is the 'morphogenesis[2] of student agency'. She argues that shifts in student agency from simply being students to, for example, becoming potential lawyers, doctors and so on are enabled by critical engagements with disciplinary knowledge through encounters with educators, other students, tutors and texts. McLean, Abbas and Ashwin (2013), in research across four UK universities, found that students cited disciplinary arguments, texts and ways of reasoning as the most significant element of their university education in terms of transforming their ability to work with disciplinary and other knowledges in new ways.

If these critical engagements within the disciplines are central to the 'morphogenesis of student agency' and student learning (Case 2013, 142), then academic development practitioners will need conceptual as well as practical tools that they can use in their work with educators (see Quinn 2003; Jacobs 2007), to enable them to analyse the ways in which educators are and could be teaching students how to know, and assessing that knowledge and knowing. In other words, academic developers need to have ways of engaging with educators about disciplinary knowledge such that they can ably to assist educators to develop and enact 'pedagogical approaches that make explicit to students the discourses and the practices of the discipline' (Case 2013, 145). As Jenkins (1996, 15; quoted in Quinn 2003) has argued: ' … the way educational developers should seek to work with the vast majority of staff is to recognize, value and build on staff's concern for their discipline'.

In her research on collaborative partnerships between academic development practitioners and disciplinary educators, Jacobs (2007) draws on the work of James Gee to show that disciplinary educators seem to be principally concerned with educating students within specific disciplinary traditions, canons or ways of knowing. But, over time, these ways of knowing and doing may become commonsense, tacit knowledge and as such increasingly difficult to see as strange or new. This can mean that many educators within the disciplines find it difficult to see their discipline as a novice student might, and adapt their pedagogy to scaffold and support students' learning as they come to know over time (Jacobs 2007). However, working as they do from outside of the disciplines, and coming from disciplinary backgrounds that may be different to those of the educators they work with (Manathunga 2006), academic development practitioners can do their most valuable work in helping these educators to see their disciplines in new, more naïve ways through questioning closely what students are learning, how, and why.

But, how we ask these questions, and what questions to ask then becomes a very important consideration.

I argue, in this paper, that key to working with educators in ways that, following Jenkins (1996), build on and account for the concerns they have for their disciplines. Key, then, in helping educators to apprentice (Goodin and Klingemann 1996) students into these communities of practice, is being able to account for knowledge. We cannot fully serve the needs of educators and students within the disciplines if we come into these communities with a 'generic canon about student learning', and expect academics to simply 'apply this canon to their disciplinary context' (Manathunga 2006, 23). We need, rather, a more nuanced and careful approach for doing this work that can account for the knowledges that have shaped educators' identities and agency, and that are, in turn, playing a significant role in shaping students' identities and agency as they move through their degree programmes. Legitimation Code Theory (LCT) offers an accessible framework with strong explanatory power in terms of its ability to conceptualise disciplines in terms of both knowledge and knowers, and the tools it offers can assist both academic development practitioners and disciplinary educators, working collaboratively, to analyse and change pedagogical practice in higher education.

This paper argues that academic development work needs to open up different kinds of conversations that are lecturer- and discipline-centred in that they have a theory of knowledge that can be applied to disciplinary contexts, and in that they can engage educators in specific and focused rather than more generic conversations about what they are teaching, how, why, and how they expect or want their students to be learning. LCT, in particular the dimension of Semantics, has thus far presented opportunities to open up conversations in one academic department in challenging and fruitful directions. This paper will use a case study of academic development work in one discipline, Political Science, to demonstrate initial learning about engaging in theory-led conversations about teaching and learning, with useful implications for academic development work across the disciplines.

Framework for the research

The framework for this research is drawn from LCT. This 'conceptual toolkit' (Maton 2014, 15) for doing sociological research, created by Karl Maton, subsumes and extends key concepts from the work of Basil Bernstein and Pierre Bourdieu. Maton has drawn into LCT Bernstein's code theory, pedagogic device and early work on classification and framing. From Bourdieu, he has drawn in field theory, primarily field, capital and habitus (for a fuller account of LCT's origins and development, see Maton 2014, Chapters 1 and 2). LCT as a full framework for research comprises five dimensions, namely Specialisation, Semantics, Autonomy, Temporality and Density. Its main concern is analysing and understanding the organising principles that underpin and influence practice in a range of fields, one of which is higher education. For the purposes of this paper and the research reflected on here, the dimension of Semantics will be explained and used as both a conceptual and an analytical tool. However, as it was part of the larger study this present research is part of, and formed the basis for conversations with educators in the Political Studies Department post-study, the dimension of Specialisation will be briefly explained here, and referred to in relation to the workshops later on in the paper.

Specialisation

Specialisation is one of the five dimensions of LCT, and it analyses one particular set of underlying organising principles using two codes: epistemic relations, which conceptualise relations to knowledge, and social relations, which conceptualise relations to knowers. Either relation can be stronger or weaker along a continuum of strengths, and in relation to the other. They are used to analyse whether the organising principles of practice privilege, or legitimate, either knowledge or knowers, neither or both, realising these analyses in four codes: a knower code (where particular kinds of knowers are legitimated through practice); a knowledge code (where specific forms of procedural, technical or specialist knowledge are legitimated); an elite code (where both are equally important) and a relativist code (which legitimates neither) (Maton 2007, 2014). Data generated as part of the larger study revealed Political Science to have stronger social relations, and weaker epistemic relations, indicating a knower code where what is legitimated through the curriculum, pedagogy and assessment is the development of a particular kind of knower realised in a recognisable academic disposition (see Maton 2014, Chapter 2; Clarence 2014).

The specialisation coding of the discipline has been useful in beginning to think in different ways about the kinds of knowledge students need to be engaging with in their undergraduate programme especially, and what this knowledge is in service of (Dall'Alba and Barnacle 2007). However, I do not want to dwell here too long, as the conceptual tool used in the research this paper reports on, as noted, is Semantics.

Semantics

Semantics analyses another set of organising principles underpinning practice. This conceptual tool can be used in research to understand how knowledge builds over time, both in terms of its relation to contexts in which it is applied (semantic gravity, SG) and the complexity invested over time in terms of concepts and symbols (semantic density, SD). Together, these two semantic codes – SG and SD – can provide researchers and educators with valuable insights, not just into the 'how' of pedagogy, but also the 'what' and the 'why' – what new knowledge students are grappling with, why it matters, and how they need to connect it with prior knowledge to make new meanings.

Semantics contends that if we can understand the conditions necessary for cumulative knowledge-building in different disciplinary contexts, we can more ably move students between abstracted and contextualised meanings, for example, showing them in relevant ways the relational or interconnected nature of disciplinary knowledge and related practices. The result of this joined-up thinking and teaching would hopefully then be students' increasing ability to move beyond learning chunks or parts of knowledge and skills towards understanding the whole of their field of study, their role as a knower within it, and how and why they are required to demonstrate their knowing in particular ways. The contention is that, by beginning to see the knowledge they are grappling with as part of a specific system of meaning used by the discipline to critique existing knowledge as well as to generate new knowledge, students can move closer to the desired shifts in their ability to engage with the world around them in new ways. Often, though, disciplinary educators struggle to see the system of meaning they work within as anything strange or new, and therefore academic developers working with them to

improve teaching and learning can benefit enormously from having access to conceptual and practical tools that can make the familiar strange in productive and generative ways.

The two codes within the dimension of Semantics employed as a conceptual framework in this research are semantic density and semantic gravity. Semantic density speaks to the condensation or 'packing up' of meaning into a concept, term, symbol, gesture, etc. (Maton 2014). The more meanings that are packed into a concept, the more semantically dense that concept will be. In the case of a discipline like Political Science, there would be central or core concepts, such as 'power', that would feature repeatedly in both abstract and applied terms across the sub-disciplines,[3] and over time students would be expected to develop increasingly stronger semantic density in terms of their understanding of these concepts, as well as their ability to use them in applied thinking or research.

Semantic gravity speaks to the context dependence or independence of meanings (Maton 2014). A concept that is used abstractly or in a decontextualised way – for example, an abstract account of Steven Lukes' theory of power – would exhibit weaker semantic gravity because it is removed from any context in which it would find application. However, if you were to apply Lukes' concept of power to the analysis of, for example, the recent UK electoral campaigns, you would bring that abstract understanding into a more contextualised space, transforming Lukes' theory of power in an applied analysis of a specific case. In this case, that conception of power would exhibit stronger semantic gravity because it needs to be attached to this context in order to make sense.

SD and SG can be used as analytical tools separately or together, and can vary in strength along a continuum and in relation to one another. When used together, they can conceptualise learning as forms of semantic waves. In a generic semantic wave (see Figure 1), a teacher could begin a class with an abstract definition of power, for example, which would have weaker semantic gravity and stronger semantic density (SG−, SD+) by virtue of all the potential meanings packed into that term that have yet to be unpacked and exemplified over the course of the semester or longer. She could then unpack one possible
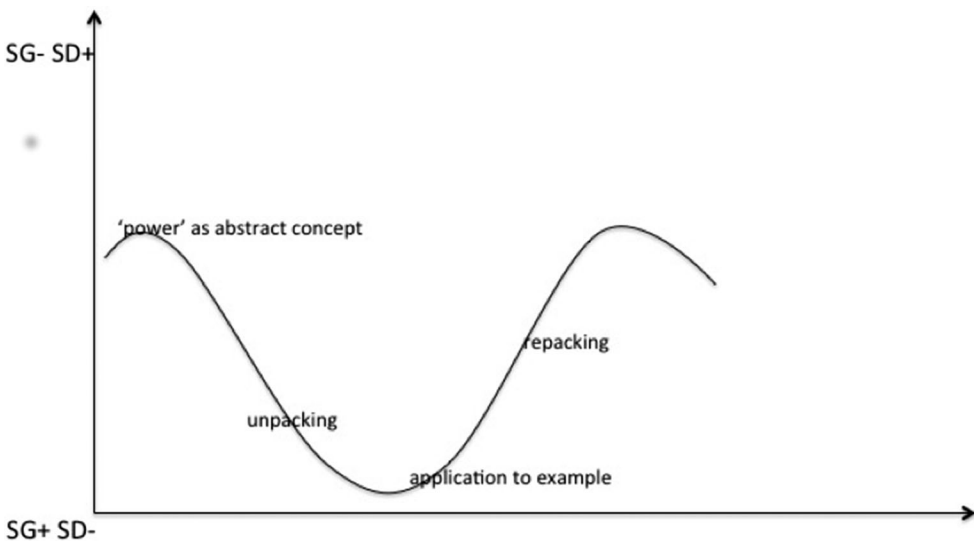

Figure 1. Heuristic example of a semantic wave in Political Science.

meaning through clarifying abstract terms and using an example, applying the concept in this context, and therefore strengthening the semantic gravity and weakening the semantic gravity for students, as one possible meaning becomes clearer (SG+, SD−). She would then repack the concept with increasingly abstract meaning by moving back 'up' the wave, strengthening the theoretical meaning of power, so that she and the students can go on to apply it differently in new examples. This basic down and up (or up and down) waving and weaving of meanings builds over time, strengthening the semantic density and ability of the concept of power to be applied to thinking about a range of cases and problems.

The conceptualisation of learning as forms of semantic waves can give researchers, educators, tutors and even students (Szenes, Tilakaratna, and Maton 2015) insights into the *how* of student learning: where are the points at which abstraction is happening, or desired, and where are the points at which contextualisation is created, or desired? Where are the possible gaps in the waves that could be constraining student understanding or cumulative, connected learning? Semantic gravity and semantic density do not always move together, inversely, as in the heuristic example of a semantic wave in Figure 1. However, in their use as a tool for opening up new kinds of conversations about teaching and learning thus far in Political Science, they have been used thus so as to avoid overwhelming educators and closing down the conversations, or overfocusing on technical understandings of the tools rather than what they can offer as insights into knowledge-building in teaching and learning.

Political Science teaching is focused on developing students' ability to understand the wider range of abstract meanings that can be packed into core and related sub-concepts, as well as the possible ways in which these can be used to analyse, think about, critique and generate problems, cases, and so on (Goodin and Klingemann 1996). This can be achieved by moving students through successive semantic waves between conceptual learning and contextual application and grappling. There are of course differences in how this plays out in different modules and sub-disciplines, and in different national contexts, but as an overall aim of Political Science teaching, this is fairly accurate.

Using semantic waves, also termed semantic profiles, to visually and conceptually represent an analysis of their teaching has begun to open up conversations with disciplinary educators in this case study that focuses on the discipline of Political Science as an object as well as a subject of study. In other words, rather than seeing the discipline as arbitrary, and working as an academic developer in more context-independent or generic ways with these educators, the use of Semantics has enabled me to talk about disciplinary teaching, learning and assessment goals in more specific ways, with Political Science as an actor in the conversations, rather than just a body of knowledge being taught and learned. In the following section, I will clarify how this has been achieved thus far, and look at the kinds of conversations we have been able to have about teaching Political Science as a result.

Methodology

The data presented and analysed in this paper are drawn from two separate workshops with educators teaching in the Political Science department at the University of the Western Cape. The first workshop was held in August 2014, and the second in March 2015. Both workshops were roughly 2 hours long, and the educators did much of the talking, thinking, and reflection. I, as the researcher-facilitator, presented small sections

of theory and data to prompt conversation around a particular focus: how to enable knowledge-building and more effective student engagement with disciplinary knowledge. This is a concern these educators have been grappling with for some time.

The data presented and analysed in this paper are from audio recordings of these two workshops. It was transcribed and analysed over several readings with these three research questions in mind:

(1) Do the LCT 'tools' make sense in the context of teaching practice and learning?
(2) What kinds of conversations does using LCT open up around the practice of teaching and learning?
(3) How can the 'theoretical' parts of LCT be made more 'practical' in academic development work?

Rather than enacting the semantic codes – SG and SD – to code and analyse the workshop data, in this phase of the larger research project these workshops were part of, I am looking at educators' responses to the LCT tools, in particular their sense of the affordances of the conceptual tools as an alternative to other tools that have been offered to them from an academic development perspective. Further, I am interested in the kinds of conversations that have begun to open up and are ongoing, particularly around the nature of the discipline in terms of its underlying principles, and the goals of teaching and learning in relation to realising these principles in practice.

In the following section, the first two research questions will be addressed, and the conclusion will point to some initial thoughts on responding to the third research question. Only the parts of the conversations in the workshops pertaining to Semantics will be focused on here. As the transcripts were quite messy, with people talking over one another, the excerpts analysed here have been edited for clarity and also brevity, but the participants' words have not been altered or paraphrased at all.

Initial findings and learning thus far

Background to the workshops

In June 2014, the year following the completion of the PhD research on which this present project expands, I asked to meet with the two educators who had participated in the PhD project to give them feedback on the broad findings, and they requested that we open the session to the whole department.

The workshop presented data and findings pertaining to analysis in terms of both Specialisation (see Clarence 2014) and Semantics. The conversations started, in the first workshop, with specialisation codes, using these conceptual tools to get at what drives this discipline in terms of the graduates it aims to develop, their knowledge, skills, dispositions and aptitudes. This first workshop sparked conversations that focused in on the underlying principles of Political Science as a knower code, with implications for what needs to be included in the curriculum and assessment (Clarence 2014). A need to delve further into these implications led to the follow-on workshop in March 2015.

The March workshop involved the whole department again. We started with a brief theoretical account of Semantics, with simple definitions and examples of semantic

gravity and semantic density, as well as semantic profiles drawn from the PhD study. The workshop format was fairly unstructured and loose, although the practical aim was to arrive at a 'next step' in terms of rethinking the undergraduate curriculum and the kinds of teaching methods and approaches that could be aligned with developing Political Science knowers in this university context. The research aim was to explore the applicability of Semantics to teaching university students, and the ways in which the conceptual tools could be brought down the wave to their concrete, enacted teaching contexts in relevant, useful ways.

The conjecture being explored and questioned is this: If educators are able to 'see' the underlying principles and aims of their discipline in a new light, and if they have theoretically informed ways of analysing their teaching that go beyond assumptions about themselves or their students, pedagogy can be seen as meaning-making in ways that may better facilitate changes in teaching practice. In other words, encountering an LCT-led approach to analysing teaching as meaning-making could facilitate a kind of 'morphogenesis' in educators' agency around the design and enactment of pedagogy, to paraphrase Case (2013).

Making sense of semantics in the context of teaching practice

The March 2015 workshop started with semantic gravity, before moving later in the session to draw in semantic density and the notion of semantic waves and profiles. The concepts were exemplified using data generated in this department in 2013, during the PhD research referred to above. The educators were invited to jump into the discussion where they wanted or needed to, so the workshop was interactive and educator-led and not focused on just presenting data.

In reading the transcripts, I looked for the concepts in action, helping the educators to think differently or in new directions about teaching and learning within their department. This excerpt from the March 2015 workshop gives an indication of the educators beginning to work out semantic gravity and 'waving' up and down in relation to their understanding of the interplay between theory and context:

A[4]: So going up is not, is about being able to reflect on the concept of – is it about being able to understand liberty outside of the context of smoking marijuana, and say 'ok, you can smoke marijuana if you don't harm someone else'

R: right^

A: and then saying: 'that's a general principle for freedom: you can do what you want so long as you don't harm someone else'. Is that going up the wave?

R: Yes … So it's degrees of abstraction. And remember it's always relative.

A: So it's the same – it's not necessarily other concepts – it's the same concept going from a rooted, empirical, specific sense to a more generalised principle?

R: Yes, then eventually what you have –

A: So you're going from a place to a principle of the same concept?

R: Yes, but then you could also bring it back down again by saying 'now use that principle you've just abstracted and look at a different case. Can you see, it's the same concept but it's doing different work in a different case?' … And different theorists will have different ideas like if you look at-

A: So if it's suicide, they could say 'ooh, maybe we should rethink the principle'?

R: Right, ja. So, you know, you could say this dude who just took down the Air France plane, and killed 150, 149 people while he was supposedly committing suicide – that's quite different than if it's just you jumping off a bridge. But, abstractly, the principle is the same, but when you apply it, it changes. …

D: So, using, using a concept like liberty and applying it to a, a new concrete set of circumstances will obviously, uh, uh, re-adapt the whole concept of liberty?

In this excerpt, we are having a conversation about the nature of the conceptual and the contextual in this discipline, and for these educators. They are applying the concept of semantic gravity and the semantic wave, working out the usefulness of it for thinking about how they might make the relationship between the two more evident in their teaching, and it became clear that, at this initial stage, it is quite useful. This excerpt was part of a longer conversation about how concepts, especially in Political Thought as a sub-discipline, change over time or tend to endure, but that in all cases contextualising the concepts and understanding them in relation to the socio-historical context of the present time is very important in considering how you use them and what you use them for in constructing arguments or doing analysis.

In the earlier August 2014 workshop, there was also some grappling with the relevance or applicability of the concept of a semantic wave to their teaching context:

A: So the wave, is that just iteration, doing it over and over again, because that's how we learn best?

R: Not necessarily.

A: So why a wave? Why can't we just do one, down escalator or up escalator? You know what I mean?

R: If you understand the very basics of how the theory works, what does that look like in a teaching situation (pointing a semantic profile on a slide [see Figure 2])? If you would say 'The state', define the state, colloquially define the state, give examples of different ways in which the state could work. … And then you say 'And power, what is power, colloquially define power, give some examples of how power works' and – 'authority, sovereignty … legitimacy' … . It looks like a list. So what you often end up with is you say to students 'put all these pieces together and answer this question about Marikana', and they give you a list of all the concepts they know. They define them for you.

A: Ja.

R: And then they say: 'Marikana was really bad and in my opinion it should never have happened and the government should have done this' and then they give you this … evaluation that's completely based on their own head –

Group: Ja. Mm.

R: – and there's just no evidence going into that evaluation … and often, if you go back to the teaching – we are quite good at doing that unpacking, or even starting from what do you already know and then scaffolding them up to a definition, and then moving on to the next 'what do you already know' – up or down escalators. Most teaching is quite good at this. But it's the line that then goes, 'ok, how does the state relate to power, how does power then get seen through the state?' …
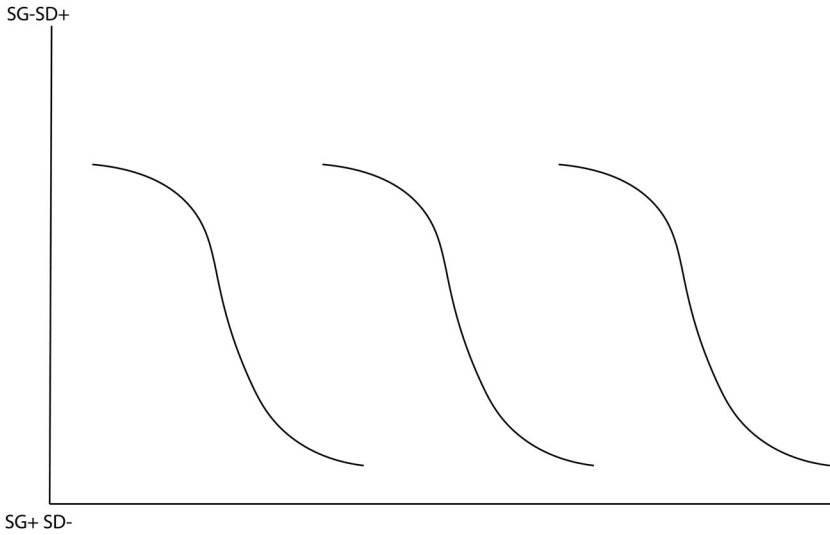
SG-SD+

SG+ SD-

Figure 2. A heuristic example of down escalators shown to the educators in both workshops (see Maton 2014).

A: But that's not what you described in the first graph [see Figure 3]. That graph gives one concept that is becoming richer, and now you're talking about clustering concepts –

R: Well there are several concepts … loss, … civil actions … –

A: Oh, so you're starting to link concepts?

R: Yes, yes.

A: Oh, I see – and this is the graph of teaching, this is not the graph of a concept?

R: It's a graph of teaching.

SG- SD+

delict

delicts focus on remedies for loss

branch of law that deals with
compensation for harms

different remedies for
different kinds of loss

semantic range

civil wrong e.g loss
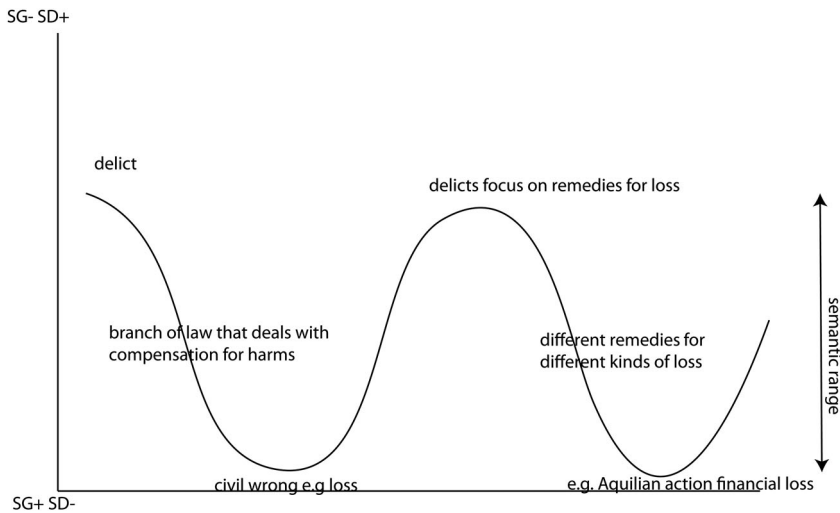
e.g. Aquilian action financial loss

SG+ SD-

Figure 3. Heuristic wave drawn from additional PhD data to illustrate a form of semantic profile (see Clarence 2014).

From the tone and form of these exchanges, we can see the educators starting to make sense of Semantics, initially, in relation to their own teaching. Semantic waves, which we started talking about conceptually with semantic gravity before adding in semantic density, and bringing the two together into semantic waves and profiles, added a new dimension to their thinking about what counts as 'theory' and 'application' or concepts and contexts in this discipline, and in the four sub-disciplines as well. It was as these conversations opened out and deepened that the educators started to rethink their curriculum, and also their approaches to teaching, and different kinds of conversations emerged within the group.

Opening up the conversation in new directions

One of the most exciting things that has been enabled by using an LCT 'toolkit' thus far has been the centring of disciplinary knowledge, and ways of meaning-making. Rather than focusing on approaches to learning, curriculum design tools or student learning styles, which are some of the places where academic development workshops can begin (and end), our conversations, guided by both Specialisation to start off (in August 2014), and then Semantics, almost immediately centred the discipline itself, especially when the educators started thinking aloud new ideas for teaching their modules. In the extract that follows, educators are bouncing ideas off each other about not only creating waves in their own courses, but also connecting their smaller waves into much larger, joined-up waves across 3 years of study with different disciplinary 'contents' and 'methods' to enable students to make relevant connections and meanings more visibly.

F: I think Comparative Politics – I'm really excited about this because I think the, the particular course I've got is just at the right place in where the students are because they're doing second year. They've got no experience of going up and down this wave – not no, they've got little experience of going up and down this wave but now suddenly they have to go up and down this wave.

R: You could argue that they've done it but with a very small range.

F: Very small. But now they've got to go up and down with very – well not very, but with relatively straightforward concepts. So with, 'how does an electoral system work'?

C: That's what I was going to come to.

F: I think it's the perfect stepping stone for them.

C: 'Coz what I was going to say is A does about a week where he touches on electoral systems and elections … But they don't do it in depth at first year – just superficial. Then they do it in second year in a comparative sense, and then when they come to … me and we do research methodologies – that's in third year – I always tend to tie it back to elections, like zoning in on some aspect of elections. So that's one content-related thing where we could look at – we could look at others where you're going from first year, second year, third year – but what I also wanted to say around methods, where you're looking at, um, the principles and then the actual method and then back and forth so that's going to enhance your understanding. But then embedded in a lot of what we do is methods; so comparative methods … there is also a building, … But we don't necessarily think about it, um, and maybe we should.

R: Well, I suppose for me this is also the potential usefulness of this tool is that it's not just in one lecture that you can connect it –

C: Ja.

R: – it's across lectures, but it's also across courses, but it's also across years –

C: Ja, levels.

R: – and you can draw different kinds of pictures, if you like, of what you're doing.

The following further example, especially in terms of highlighting the central role of the nature of the discipline itself, shows how the educators have been able to begin taking up and using the language offered by Semantics to begin re-thinking their teaching. In particular, they reference building semantic density, here understood as building conceptual complexity in key terms, as being important to be conscious of in teaching. This excerpt begins with my account of an observation from the data generation in 2013, prompting conversation about the use of the same concept in different ways across two sub-disciplines that are part of one module (i.e. the first half of the module is Introduction to Political Studies and the second half is Introduction to International Relations). This part of the overall workshop further delved into how to connect concepts to cases and problems in less tacit ways in order to build arguments (central to becoming a recognised knower is the ability to construct appropriate arguments well).

R: In the Political Theory-ish part of the course (POL131) it was 'given this set of conditions, this is how the state *could* act' – the state was a much more abstract sort of actor. Whereas in the IR part of the course it was 'This is the state as an actor, and this state acted like this, and this state acted like that, and these are–', and it was a much more, kind of, concrete sense of that versus a much more abstract sense of it.

A: So you're asking, you're answering different questions in each sub-discipline – that's the thing. …

F: But I think the state example is actually a very good example of how they are then – … They're forced to have to think – I say to my class 'nuance, nuance, nuance!' …

A: Complexity, you mean?

F: Yes, complexity – multiple, you know –

A: Semantic density.

F: Semantic density. But I think it's really good actually. They start second year and now they have to do both – they have to understand the state as a territory that interplays, because we're doing comparative countries –

R: So something more concrete?

F: But then they have to understand the nature of the state being flexible, being about multiple relations between actors within its –

R: And also about being an idea?

F: So they're forced to do that.

A: That's a very useful idea. And it's a very nice way to bring together two halves of 131 then. You have to do both.

These two excerpts, while a brief part of over four hours of conversation and debate between departmental colleagues and myself as the researcher-facilitator, show how the

LCT tools offered by the dimension of Semantics have opened up a generative space for new kinds of conversations about teaching and also curriculum design.

Focused on the discipline of Political Science itself conceptualised here as a knower code (Clarence 2014), these conversations are challenging me and the educators to think anew about what counts as knowledge and knowing in this discipline broadly, and within each sub-discipline. The conversation has turned from issues of more general approaches to learning, teaching or assessment to what counts as 'conceptual' and 'contextual' in the different sub-disciplines here – there is a suggestion, for example, that International Relations and Political Thought may be different in this area – and how to make clear to students which is which, why, and especially how to move between the two in appropriate ways, especially in constructing their arguments. In response to the first two research questions noted in the previous section, Semantics (and Specialisation too) does indeed have applicability to disciplinary teaching and learning practice as well as great potential in opening out different kinds of conversations in this field. Most exciting for the educators I have worked with thus far is that these LCT tools offer them a productive language with which to 'speak' their disciplines, as they also speak about the recontextualisation of knowledge into curriculum, or the enactment of building that knowledge with their students into relevant systems of meaning through pedagogy and assessment.

Towards a beginning, rather than a conclusion

As this paper reports on the first part of a longer term research project that is ongoing, this is not a conclusion as such. Rather, I am thinking of it as a beginning. The two workshop conversations I have been able to have with this department, and other exchanges with them on a less formal basis as well as with academic educators from other departments, have indicated that while workshops and conversations like this have made a productive start, there is much work to be done in enacting change and improvement in the teaching and assessment practices in this and other disciplines. 'Context' and 'concept', for example, are not universal notions that apply the same way in every sub-discipline, and further work needs to be done to plot out more explicitly what counts as each in the different sub-disciplines, and then draw that reflection into curriculum, teaching and assessment design. A further area for ongoing thought would be to consider the 'knowledge and techniques' as the educators phrased it, as well as the desired 'dispositions' of a Political Science knower, and how to bring the two together in the teaching and assessment in both the undergraduate and postgraduate programmes.

While these steps forward are spoken about here in relation to this case study, these realisations and steps forward could well apply to other disciplines as well, as all educators can benefit from having access to a set of conceptual and practical tools that can help them surface and articulate the underlying organising principles of their discipline, and how they work to generate, critique and build knowledge through their own research, as well as through teaching and assessment practices. LCT is showing itself to be just such a set of tools that can bring to the centre of these conversations the nature of knowledge, knowers and knowing in the disciplines. It is my initial contention that this kind of theoretically informed approach, that offers strong explanatory tools, can enable educators to shift their sense of agency as the focus is less on making their teaching fit with imposed

policies and approaches – akin to Manathunga's 'canon' (2006) – and more on finding the kinds of approaches to teaching that best align with the aims, goals and organising principles of their discipline.

The paper has shown how Semantics, exemplified here through semantic waves representing instances of classroom teaching and discussion, can be used as a tool to generate different kinds of conversations with educators that begin to get at the nature of the discipline and what they need to consider in aligning teaching with the underlying principles that shape the discipline overall. The value of this research, from an academic staff development perspective, lies in its contribution to exploring ways of working with educators using tools that offer a more theoretically informed rather than 'common-sense' or overly generic approach to pedagogy and curriculum design. Pedagogy, especially in Political Science, is an underexplored area of LCT-based research, and the insights gleaned from this project have useful applications in other disciplines where educators are grappling with similar questions: what should my students be learning, when, why and how; and how, therefore, should I be adapting and enacting curriculum design, teaching and assessment practices?

Notes

1. The preferred term here will be academic development as this is the term used in Southern African contexts, which is where this research originates. Academic development refers to the work of those employed to assist educators with improving their teaching and their students' learning. Teaching and learning refers to the work of educators within the disciplines.
2. Morphogenesis, drawn in Case's work from the work of Archer (1996), literally means 'a change in the shape of' student or lecturer engagement and agency or being.
3. Political Theory or Thought/Political Philosophy, National (country-specific) Political Studies (e.g. South African Politics), International Relations, Comparative Political Systems.
4. A, B and C denote the different lecturers by way of pseudonyms; I am R, facilitating the workshop.

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