Editorial

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What is the relationship between tacit/explicit and possible/actual and why does it matter for those of us who take education seriously as an object of research and thought?

It helps that we have a lucid account of the importance of getting the tacit/explicit relationship right in this issue of JoE. Yael Shalem and Lynne Slonimsky make two key moves. Firstly they point to the need to get the emphasis on what is tacit correct. Tacit means both 'we know more than we tell' and 'we know more than we *can* tell', and in the auxiliary verb 'can' lies the rub. Both senses of tacit are valid. As teachers we know far more than we actually say and do; and as teachers there are processes that we carry deep down but cannot articulate clearly. The danger lies in confusing what is being held in the background but can be articulated if needs be with what is in the deep dark recesses that never comes out and can only be heard moaning in the cellar, or glimpsed through the cracks. If the 'locked in the basement' emphasis of tacit is held as its predominant pedagogic meaning, then all a student can hope for is to go live in the 'house' of the teacher and experience, but never explicitly see, the dark, hidden knowledge. Learning becomes something gothic, learnt by mysterious contact in some dark corridor. To bring this 'tacit knowledge' out into the light would destroy it, make it wither, so best leave it tacit and learn by being there. But if the major emphasis on tacit falls towards 'we know more than we tell', then there are not so many dark and difficult secrets of knowledge, more light is cast on what is said, and the task of making the tacit explicit becomes a key component of teacher education. It's not that there are not dark secrets in the basement, it's that these secrets are not the main focus or rationale behind teacher education.

Shalem and Slonimsky want to get away from the over-inflated, gothic view of tacit knowledge and push towards an enlightenment view. They feel such a move is crucial because it affects how we professionalise teachers: either we buy into the gothic view and send our student teachers off to learn in the 'house' where they will learn by being in the place where things happen, much of which cannot be clearly articulated but needs to be experienced to be learnt; or we hold that what is tacit in our profession can mostly be made

explicit and clearly shown to the student in an ordered way that teaches students the key principles guiding judgement and action within the profession.

> If our argument is correct, then our conclusion is that the common view of socialisation into professional practice is wrong. The view that *we know much more than we can represent by telling*, and therefore practical understanding of professional knowledge must be acquired in experience is false. It is time that the over inflated view of the role of tacit knowledge is challenged and we hope that we began to address it.
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> The central claim that we want readers to take from this paper is that the heart of practical understanding is in discrimination and evaluation, which must be premised on disciplinary knowledge and cannot be obtained from emulating the activities of other practitioners. Practical knowledge develops, primarily, from learning to order ideas – to distinguish and relate between ideas, know what procedures to take to validate them and how to recognise what interpretation is most appropriate for the instance at hand. Acquisition of professional knowledge lies in access to criteria about what is permissible, right or wrong, true or false, appropriate or inappropriate, and what is better and why.

In the second paragraph of the above quote, you can see a summary of the second key move, which is to argue that development of professional practice involves enabling students to work at a level of abstraction and generality that both holds grounded practice within but also allows classification of the practice. The student needs both the practice and the rules generating the practice. This is a significant move – the student needs both an experience of practice, and the beginnings of an understanding of what the field of possibility generating the practices are. When an actual move is made, it holds within itself many possibilities, only a few of which realise themselves in action, much of the rest hangs about, unrealised, but in the air. A professional teacher is not caught in the spectre of the actual lesson, she knows the lesson could have gone many different ways depending on how the lesson developed, and what counts are the underlying rules that enable choice between possibilities, not the manifestation of the choices.

This field of possibility is not only the fertile ground from which the actual manifests, it also is the field of possibility each action enables going forward. Implications spill out of every move, pushing forwards into many possibilities and even more impossibilities, and the task of a professional is to be able to recognise what the implications are and work intelligently forward within and between them. Shalem and Slonimsky work with Collins, Winch, Abbott, and Muller to make this point, but for me, the person who articulated this most clearly and thoroughly within an education context is Alfred North

Whitehead, and he uses the possible/actual distinction to make the point. Once you get a taste for what he (and other process philosophers mean) a beautiful, strangely obvious world opens out to view. It's a world in which a given process has behind it a seething set of possibilities it sprung from, and spilling in front of it a series of implications it can move into. To develop a position where you not only see the actual event but also the possibilities it sprang from and possibilities it can move towards is to have a godlike view, and this is what we find in Shalem and Slonimsky's paper, an articulation of a secularised god view for the professions.

What they do not provide is an empirical example of their argument, mainly because their paper exists as a part of a series on professional judgement and the paper in this edition focuses in on argument, not exemplification. But if you read Devika Naidoo's paper in this edition, you will find a thorough description of what it means to make disciplinary knowledge explicit through ordering ideas in a principled manner. Naidoo analyses four grade 10 Geography textbooks in a way that reveals how clearly the textbooks provide access to the organising criteria of Geography as a discipline. Here is her analytical framework, and you will immediately see that it gets to the heart of the matter, unlike many textbook analyses out in the ether.

Attribute of geography	Intellectual process	Analytical criteria
Make meaning of experiential world.	Observation, identifying, describing, naming	The extent to which each textbook requires students to observe and make sense of the experiential world?
A technical lexis	Naming	The extent to which the technical lexis is represented.
Ordering the experiential world	Ordering/taxonomising/classifying: classification based on super-ordination and compositional principles	The extent to which the geographic taxonomy is represented.
Explaining experiential phenomena	Implication sequences – Network diagrams that represent the taxonomic relationship	The extent to which phenomena are explained

It's a sweet framework. Notice that it moves from a meaning making relationship between the everyday and specialised into a more formalised

technical naming, and then an ordering of the lexis into a taxonomy, and then an explanation of the taxonomy in a way that gets into the processes involved. I would like to focus on the difference between the third and fourth aspects and ask it as a question: what is the difference between a taxonomy on the one hand and implication sequences on the other? Here is an answer Naidoo uses from a systemic functional grammarian:

> Where taxonomising tends to focus on things. . .explaining tends to focus on processes. The emphasis shifts from things in place to things in action. To explain how things are, or came to be the way they are, it is necessary to use processes, participants and circumstances. These tend to be arranged in clause complexes which will be called implication sequences (Martin, 2006, p.157).

A taxonomy gives you the skeleton of a discipline, an implication sequence breathes life into it and makes it move. You need both to be made explicit in textbooks, and you need both to be made explicit to professionals in training, for how else are they to make a judgement in a specialised discipline if they do not have the structures and processes clear.

Making things and processes explicit, however, is not a cure-all. It has its own vices, like when you explain things so much that the actual topic in focus gets lost. Everything gets made clear, but to do this you take up precious time and resources and land up with a student who has all the rules and no idea what the point is. Another issue is that the sub discourses of a discipline do not neatly align with each other, even with a discipline like Mathematics. The process of one sub discourse tangles with the process of other, causing confusion. If you multiply two natural numbers you get a larger number, right? Well, what is a half multiplied by a quarter? It's an eighth. Damn. That's smaller, because rational numbers don't work in quite the same way as natural numbers. As Brodie and Berger (2010) point out, mathematics has sub-discourses that relate to each other in strange ways – sometimes you can apply rules across, other times it gets you into trouble. The key point is to be able to move between these sub discourses in ways that understand their different ordering patterns, and seeing the higher principles that hold these differences together. But what happens in Mathematical Literacy, where you need some grasp of the contextual example as well as the mathematics? This is what Sarah Bansilal explores in her article 'Understanding the contextual resources necessary for engaging in mathematical literacy tasks'. Like the other papers discussed so far, she is concerned with making explicit what the tacit demands of mathematical literacy are, and she provides a useful framework, taken from Greeno, Sfard,

Duranti and Goodwin, to make both the conceptual and contextual demands of a discipline explicit. Here is one of her examples:

Pizza task
At a restaurant at the Waterfront in Cape Town, tourists have a choice of different pizzas:

Base	*Toppings*
Thick	Pineapple
Regular	Salami
	Tuna
	Mushroom

If a tourist buys a pizza with three toppings, how many combinations are possible? (Use any systematic counting method that you have learnt.)

There are a number of issues with this example. Firstly, if you don᾽t understand the contextual background of Pizzas, you cannot get to the conceptual root of the problem. Secondly, most of us would not have a clue how to answer this question even though we decry the terrible results in Maths and ML. And thirdly, the example is preposterous: a restaurant at the Waterfront with the above choice range simply could not exist – where is the thin and crispy base? Everyone knows that it should be either a thin base (Roman Style) or a thick base (Neapolitan Style). And what about gluten free?

At least, with Mathematics and ML, you have the virtue of each action containing a formal base, but what happens when you enter a warmer, fuzzier space of human interaction in its own terms? Doctoral supervision is enormously complex and subtle, but it is vital for us to get a thorough grasp on its processes and dynamics, for it is through the doctorate that we both reproduce and regulate our academy. Fataar picks up on, and extends, an existing body of research and debate on supervision in South Africa. He pushes the debate into the elusive relationship between supervisor and student that holds both a knowledge dimension and a knower dimension. Fataar focuses on how deeply the subjective, personal engagement between supervisor and student informs the process of knowledge acquisition. For those who enjoy Legitimation Code Theory (LCT), read Fataar's paper in terms of the knowledge-knower structures (or epistemic relations and social relations) and see how it talks back to you. Supervision is as much about producing a certain kind of knower as a specific kind of knowledge. Fataar quotes Green to make the point clear

> Subjects are formed as an ensemble of knowledges, capacities, identities and dispositions through the interplay of specific social relations and social practices, mediated by language. This is always a fragile ensemble, a provisional settlement, with various degrees of durability. Moreover, this must be understood as necessarily a *relational* subjectivity. Academics, graduate students and their discourse/disciplinary communities are implicated in social/symbolic networks and circuits of identification and citation, repetition and renewal, learning and forgetting. . . . Doctoral pedagogy is as much about the production of *identity*, then, as it is the production of *knowledge*. At issue is the (re)production of specific research identities (Green, p.162).

Put in Shalem and Slonimsky's terms, Fataar is working hard at making what is tacit in the supervision process explicit by refusing to leave the difficult and darker parts of the process unarticulated and left to some kind of osmosis to be learnt. There are elements of the supervision process that experts in the field find hard to articulate clearly, but this should not stop the process of making it explicit. This is not to say that there are elements of the process existing beyond overt expression, and that we need to learn how to talk about these elements in similar ways to how the mystics (like Dionysius the Areopagite) learnt to talk about God. We need a language of mysticism within our profession that tries to say the unsaid, not by making it explicit but by naming the impossibility of explicitness. The post moderns have shown us how to do it in a secular way. But this kind of unnameable is not the dominant focus, or the most important part of the supervision process. There is much to the dynamic that exists in the realm of the 'we know more than we tell' rather than 'we know more than we can tell'. It is incumbent on all of us engaged in the process of supervision to continue the process of opening our unexpressed practices out to the light, and not stopping when the energies become subtle.

Let's test our own ability to work out implications of subtle forces by using Shelly Wilburn's article 'How the 'outside' becomes 'inside'. It's a deceptively simple paper but the message it carries is profound. She tells the story of two schools in the Western Cape that are both from poor communities and performing well. The issue she opens out is how the different social contexts these two schools find themselves in make them respond in very *different* ways to produce *similar* decent academic results.

The first school (School 1) is 15kms outside Cape Town at the edge of a black township. It has 1 500 learners and 42 teachers, with almost all learners living in shacks. There is support for the school that comes from NGOs active in the area, and strong transport links to Cape Town that provide access and mobility.

The second school (School 2) is also around 15 kms outside of town, only the town is Lutzville and the community is isolated and homogenous, purely Afrikaans speaking and coloured, with very strong traditional roots. There are massive issues with Fetal Alcohol Syndrome resulting in a number of students with cognitive and physical disability.

If I told you that one of the schools has a more open and connected orientation to the community, and the other a more internal orientation that closes itself off from the community, which school do you think goes with what orientation and why?

School 1   Open orientation
School 2   Closed orientation

If I told you that one of the schools has a more pragmatic orientation where it accepts that some of the kids can do the work and others will never get there, and the other had an optimistic orientation that pushes for all children having the ability to succeed, which school do you think goes with what orientation and why?

School 1   Optimistic orientation
School 2   Pragmatic orientation

If I told you one of the schools had a communalising orientation which emphasises that everyone must do the work and perform, and the other school has an individualising orientation that focuses on learners who have what it takes to succeed, which school do you think goes with what orientation and why?

School 1   Individualising orientation
School 2   Communalising orientation

If you got the following correlations, then go have another whiskey.

School 1 (Open, Optimistic, Communalising)
School 2 (Closed, Pragmatic, Individualising)

If you didn't, then have a double.

If you don't drink, then carry on reading the rest of the editorial.

So we have two schools in poor communities, both of which are producing good results but with very different orientations to their communities. And it has to be like this, because different contextual conditions demand different responses to produce the same results. What could be more foolish than to take what works in school 1 and use it as a model for school 2? Both schools are responding to their communities in intelligent ways; that's what you want to encourage, not one set list of how all schools should respond to the community. You want a school **response** to the community, not a **set list** on what school/community relations should be. This is what Wilburn brings out for us – what Shalem and Slonimsky call, on a different level, professional judgement – and what Whitehead theorises in its full glory as process.

What happens when the 'outside community' gets control of the 'inside school' and runs it on community principles? What do you do when a deeply religious-based school insists that its religious mores and customs hold priority and then excludes a pregnant school girl from entering class because it has a particularly literalist or fundamentalist interpretation of Islamic law that the community around the school strongly support? What do you do when the very democracy that attempts to recognise diverse beliefs finds itself rejected by those beliefs? The South African Schools Act and our constitution ensure that pregnant school girls have a right to education. Davids and Waghid explore this tension in terms of independent Muslim-based schools that exclude pregnant school girls from class. They come out strongly for an inclusive cosmopolitan view.

> On the one hand, then, these schools exist because of a pluralist and cosmopolitan understanding of citizenship – that individuals have the right and protection of the state to exercise their beliefs. And on the other hand, these schools use the same right to practise a form of discrimination. Surely, the right of these schools to exist, as constituted in the SA Schools Act, is constitutive of a conception of inclusive cosmopolitanism, which all religious-based schools, for the sake of their own existence, ought to protect and promote. To discriminate against learners on religious grounds undermines the spirit of inclusive cosmopolitanism that initially contributed to their existence. Thus, building a democratic school with an inclusive and cosmopolitan ethos does not necessarily restrict religion but does countenance the exclusive ways in which religions are and can be used to demoralise difference, in this instance, instigated by teenage pregnancy.

It's an attractive argument, but I am not sure how much weight it carries. A minority community has a certain 'way of life' that is far more deeply entrenched than any religion, and it will have sanctions that enable and protect the community as a whole, not the individual member.

Cosmopolitanism downgrades their way of life by treating it as a belief that needs to be held lightly in the face of others, and does not offer much in return, except happy diversity snacks. I do not have an answer here, but I certainly feel that the issue is not so much religious fundamentalism as different ways of life.

Both Wilburn and Davids and Waghid show that the relationship between the outside and inside is a complex affair. Peter Pausigere and Mellony Graven add to the complexity by discussing how teachers inside schools are responding to the strong national drive to improve standards with Annual National Assessments (ANAs). Teacher responses range from outright rejection (a teacher at a Montessori School) to slavish following, where ANAs have completely reoriented what they teach and how they teach. The main mode of response was one that recognised and accepted the reality of ANAs whilst at the same time still insisting on teaching for meaning and covering areas not tested by ANA. I take a similar message home from this paper as from Wilburn – there is no one response to the outside that is correct and definitional. We need to develop an understanding of process that accommodates different responses. But here is the rider – this accommodation still has to have principled judgement attached, where the adequacy of the response is investigated and measured, not by a list, but by a set of principles that recognise contextual relevance but does not defer to it. The articles discussed above help us to think through what this would mean. So let's do a final test case, using beating children as our example.

Patti Silbert explores the issue of school learners often supporting a beating, rather than resisting. It could be that all resistance has simply been thrashed out of them, but listening to their own reasoning, it's more complex than that. Silbert firstly describes the setting – Ubuntu High, a school of over one thousand, mostly Xhosa speaking learners.

> The students who attend Ubuntu live in the townships located on the outskirts of the city and rely on public transport, many travelling far distances across the city to get to and from school. The appeal of this school for many township youth is because of its perceived functionality as compared with the majority of schools in the local township communities. Perceptions of success are associated with its location: a seemingly far distance from the scourges of township life, and a stone's throw away from some well-known tertiary institutions. . . Despite poor facilities and overcrowded classrooms, messages of hard work and success were prolific. Newspaper articles mounted on the walls of the school foyer conveyed different stories of success.

In this school, most of the students support corporal punishment.

> Yeah, they, they're doing their best. They're beating us when we are late, and they, I, I see that as, that's a good thing, because we, um, we as black child, they always tell us that, um, in order for you to. . . have respect, we must like, we must teach you when you're young, like and here, they, they beat us, which is a good thing. . .

And

> . . .it works for me, because there are no other ways that I can see, that can make students be what the school wants them to be. So, the, the disciplinary actions that take place are perfect.

By their account, the school uses corporal punishment because it works. Physical pain acts as an effective deterrent. More than this, the students felt it impacted positively on academic performance, enabled university entrance and access to a better life. Is this a barbarous throwback or is it students insightfully pointing to the necessity of quick and effective discipline that is short, sharp, and to the point? Don't we all know, from 'research', that beating a child results in higher incidents of criminality, lower cognitive development, divorce, delinquency, alcoholism, sado masochism, and everything else bad in adult existence? Surely not? Do we not need to discriminate between beating and spanking, and within spanking – when it's done, how it's done and why it's done – and maybe then, the results will not be as clear? It's the nature of the response, not the act itself, that we need to pay more careful attention to. But then, I was spanked as a child at home and at school, and maybe I got a taste for it.

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