

Bion and Schön: Psychoanalytic perspectives on reflection in action

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Abstract

Schön's concept of 'reflection in action', particularly when interpreted from a sociocultural perspective, is often used as frame with which to consider the relationship between theoretical and tacit knowledge in the work of teachers. This paper presents an alternative interpretative frame for Schön which makes use of the ideas of Wilfred Bion, perhaps the most influential psychoanalyst of the second half of the 20th century. It is argued that it is the productive *emotional* struggle with uncertainty that lies within Schön's moment, which ultimately leads to the teacher coming to a moment of decision about what the child might need in a particular situation. This (contingent) understanding arises from a dialectic intertwining of knowledge derived from intersubjective relationship and theoretical knowledge, for example about typical and atypical development in children. Implications for professional practice, particularly in relation to working with children with special educational needs are discussed.

Keywords

Psychoanalysis, Schön, Bion, Reflection in action, Special Educational Needs

Problematizing Schön

Schön (1983) emphasized the importance for professionals of tacit/experiential as well as theoretical knowledge. His concept of 'reflection in action' is based on the premise that all professionals make use of a combination of both types of knowledge when working 'in the moment' on solving professional problems. My focus in this paper is on Schön's consideration of what goes on 'in the moment'.

My contention is that in Schön's work, as in the work of many of his commentators, this consideration is both under theorized and under exploited, particularly for professionals

working in the caring services. I propose to make use of a psychoanalytic lens based on Wilfred Bion's epistemology of how knowledge arises in the intersubjective relationship between two people. Bion was one of the great psychoanalytic theorists of the 20th century, who developed (or perhaps revolutionized) the ideas of Melanie Klein and the object relations approach in psychoanalysis. His ideas continue to have a pervasive influence on psychoanalytic thinking. His intersubjective quasi-Kantian epistemology, can, I propose, serve to illuminate what goes on in that 'uncertain moment' when teachers, and indeed other caring professionals, come to decisions about how to work with children. In particular, a Bionian lens suggests that there is something inherently uncertain in the 'moment' when teachers relate intersubjectively to their children, and that this uncertainty is a crucial part of, or even defines, the process of coming to know, in a truly useful sense, about the child. Although Bion mainly directed this mode of thinking to analysts, many of his writings, particularly *Attention and Interpretation* (Bion, 1970) have a much wider scope, and my project here is to consider how his message is relevant to teachers as well as other members of the community of caring professionals.

About Uncertainty

Schön's outline of the concept of reflection in action, whereby professionals combine tacit and theoretical knowledge in the moment, implies the presence of uncertainty in the process of teacher thinking and decision making. Polanyi (1958), Schön's theoretical predecessor, conceptualized the space between the rules and the performance as equivalent to tacit knowledge. We can conceive of uncertainty, as inhabiting this space between the rules and a performance, which a professional must perforce traverse, whether consciously or unconsciously, in coming to a decision.

Conceived of in this way, uncertainty is an aspect of the work of all teachers and indeed all professionals. However it has a particular application to the work of children with special

educational needs (SEN), because such children often have diagnostic categories applied to them that come with associated cognitive accounts and bodies of expert knowledge. This leads to potential uncertainty about how to make use of this expert knowledge and brings more explicitly to the fore the question of how this is balanced with their on-going experiential or tacit knowledge gained from working with other similar children or from working with the same child over time. Further, the area of SEN and how to achieve effective inclusion is positioned at the intersection of theoretical and policy debates about agency versus capability, as well as, in Barton's (1988) terms, sociological versus psychological conceptualizations of special needs and special education. Such debates, particularly in regards to the role of science in determining what we know about a child through the use of diagnostic labels (i.e. expert knowledge), penetrate deeply in to the classroom and provoke further uncertainty when the teacher considers how to work with children with the label SEN.

Productive uncertainty

It is of course the case that certain domains within the human sciences, including communications research and cognitive approaches to professional stress, have positioned uncertainty as a clear negative. Berger and Calabrese's (1975) influential uncertainty reduction theory posited that during social interaction, high levels of uncertainty tend to reduce levels of communication and thus the potential for learning. This reflects to some extent the common sense view that uncertainty is undesirable, and that the more we can achieve certainty, or its close correlate expertise, the more effective we will be. In teaching, this might be seen in the common occurrence, as Hargreaves (1994) identifies, of feelings of guilt, failure, or lack of confidence in their professional abilities when teachers experience uncertainty.

Others have taken a more balanced approach to thinking about uncertainty. Helsing (2007), Wasserman (1993) and indeed the broader movement using concepts influenced by or

derived from Schön's idea of the reflective practitioner as a lens for thinking about professional development (Kolb, 1984; Moon, 1999; Brookfield, 1995) suggest that it is only by engaging with uncertainty, by identifying critical incidents that are at least initially unclear to the professional, that professional development can come about. However, I argue that such conceptualizations of uncertainty tend to give primacy to the move from uncertainty to expertise, and thus implicitly undervalue what can be gained from an ongoing state of uncertainty.

My contention is it is through the ongoing grappling with uncertainty that the teacher comes to know the child more fully. The uncertainty is productive. This conceptualization of uncertainty is based on Bion's psychoanalytic epistemology. In this it has some significant similarities to Deborah Britzman's (1998, 2013) use of Bion's conceptualization of uncertainty in the teaching situation. However, Britzman both assumes Bion's epistemology and leaves its relationship to other frames for thinking about professional practice and development largely untouched. Here I go further, in fact I would argue much further, in working out how productive uncertainty relates to the theoretical and professional discussion about what might be meant when Schön and Polanyi refer to a space between expert and tacit or experiential knowledge. I develop my argument based on the premise that this space has a particular quality that is to do with both relationship and agency, and that this is of particular relevance for professionals working in the caring services such as teachers. Although the vast majority of occupations involved interaction with others, it is reasonable to propose that in the caring professions, there is a particular intensity about the relationship between teacher and child, or nurse and patient, or social worker and client. The problems that these professionals are faced with are problems about people, and the uncertainties that they experience involve to a significant extent the human mind, certainly an embodied mind, but

nevertheless a complex mind that they can only come to know through relationship. Wilfred Bion (1962) formulates the term ‘learning from experience’, by which he means a particular type of learning, in which we come to know, or even, in his epistemology, to have thoughts, through the relationship that we have with others, starting with our earliest relationship with our primary caregiver. The analyst, and Bion’s focus was primarily on the work of the psychoanalyst, comes to learn about the patient, to know them, through their ongoing intersubjective relationship with them. This process is not, in Bion’s worldview, an easy one. It is fraught with difficulty, with uncertainty. This can be illuminated with a vignette from my own experience.

Avi

It was my fifth year as a teacher. I was teaching a Year 3 (ages 7 to 8) class. They were a ‘nice’ class, many of whom were good natured and eager to learn, although the class was not without children who had particular difficulties and needs. One of these was Avi. He was bilingual, coming from an Israeli family of Iraqi origin. Although generally fluent in English, his reading and writing skills were a bit behind those of his classmates. He was quite a sparky child, often pleasant and enthusiastic, but who was also quite emotionally immature for his age. He would quite frequently, and often for no clearly obvious reason, get quite strongly upset in class. He would screw up his face, sometimes stamp his feet, and quite frequently burst in to tears. Usually during these episodes, if given some attention, and left for a while, he tended to calm down. He also had a tendency to be quite clingy, and developed a strong attachment to me as his teacher over the course of the year. One interaction with him, eight years ago now at the time of writing, has stuck very strongly in my memory. There was a whole school activity taking place – a dreidel competition. Dreidels are four sided spinning tops with a particular letter on each side, that are used for a game

associated with the Jewish festival of Chanukah. Two classes together were given a time to work in the hall on making dreidels and to practice spinning them. During our time in the hall, most of the children were getting on fine with their dreidels, but Avi was finding it hard. I can't remember the precise problem he was having – it might have been in getting his dreidel to spin properly. He was quite frustrated by this and starting to get upset. I do remember quite strongly noticing this from across the room and coming to work with him. I made some suggestions as to what he might do. He looked up at me, but didn't take any notice of what I had said, and carried on not managing the task. I remember having a strong feeling, and it was more of a feeling than a precise thought, that what he needed was just for me to be there with him and not necessarily to say anything. I also remember that it was quite an effort to concentrate on him the hall was very noisy and there was lots of movement from excited children and spinning dreidels. But I managed to do just that, crouching down near him, watching him use the dreidel. On the surface he didn't seem obviously to react to me in any particularly strong way, although he glanced momentarily up at me every so often. But I had a strong sense of communicating with him in some way, of being alert to what he needed, and of it being somehow important for me to be there and alert with him, even though I didn't have anything specific to say or do. He just carried on playing with the dreidel, noticeably more calmly now, glancing up at me every so often.

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This vignette was derived using a psychodynamically informed psychosocial methodology, derived from the Tavistock infant observation model (see Mintz 2014), which make use of the observer's emotional state in understanding a social field. This is equivalent to the psychoanalytic process of counter-transference, which involves the observer in being sensitive to the unconscious communication taking place between them and the subject. The vignette illuminates how this occurs in an intersubjective encounter, which can act as way of

coming to know the child. I report my emotional state, and how that, in some way, was a bellwether for what was going on for Avi or what it might be that he needed at that particular moment. In this case, the conclusion that I drew after this incident, based on my observation of my own emotional state, is that it was difficult for me to ‘stick’ with Avi and his possibly quite hard work with the dreidels. I identify difficulty with concentrating on Avi in the bustling hall, but part of this difficulty may also have been that of engaging with ‘not knowing’, of being in a state of uncertainty about what it was that Avi needed. It would have been much easier to dive in quickly and help Avi with the dreidel, or to offer him advice about what he should be doing - much easier than staying with the difficult task of being uncertain, and of entering into an intersubjective relationship with him.

Similarly the therapist, and as I argue, in parallel, the teacher, must shy away from the easy temptation of rushing to quick certainties, but rather grapple with the pain of ‘not knowing’, of being uncertain, and wait expectantly for the (still contingent) knowledge that arises through the intersubjective encounter.

It should be noted that I use the term intersubjective as it is employed by Daniel Stern, i.e. to mean an agentic self which is aware both of itself and its differentiation to others, and which can be aware of and be in relationship with other minds (Stern, 1985). Bion’s epistemology sets out a very particular view on how that relationship to other minds comes about, but one which I think is compatible with and comes within the broad use of Stern’s use of the term which emphasizes the individual’s conscious and unconscious mind in encounter with other minds. Stern’s usage in particular can be contrasted to other uses of the term – firstly those such as Henriques and Hollway (1988), who employ a hermeneutic or Lacanian approach to its definition, and secondly those such as Aitken and Trevathen (1997), who employ a largely cognitive approach which minimizes the role of emotion and the dynamic unconscious in defining how minds meet.

Issues with Schön

Schön (1983) highlights the limitations of technical rationality when applied to professional practice, illuminating in particular the failure of the technical rational model to resolve the tension between theoretical knowledge and tacit or experiential knowledge in the practical application of knowledge in professional practice. His approach to resolving this tension is to propose a new paradigm, 'Reflection-in-Action', in which theoretical knowledge co-exists, in some rather ill-defined way, with tacit practice-based knowledge. Schön characterizes this idea of 'Reflection-in-Action' through the use of various examples, such as that of the tight rope walker:

[...] the know-how is in the action [...] a tight-rope walker's know-how, for example, lies in, and is revealed, by the way he takes his trip across the wire, or that a big-league pitcher's know-how is in his way of pitching to a batter's weakness, changing his pace, or distributing his energies over the course of a game [...]

(Schön, 1983, p.50-51)

Schön tries to elaborate the idea of the 'know-how is in the action' by referring to how such professionals talk about this. So he describes how pitchers talk about 'finding the groove' or how jazz musicians talk about 'having a feel for' their material when improvising.

Thus Schön's concept of 'reflection in action' is based on the premise that all professionals make use of a combination of theoretical and tacit or experiential knowledge when working 'in the moment' on solving professional problems. Yet what this actually means, as in the description of the tight-rope walker is typically unclear. In solving the riddle, a number of theorists such as Kemmis (2005) and Erlandson and Beach (2008), treat Schön as something

of a closet cognitivist, making sense of ‘in the moment’ by more clearly positioning it as a socio-cultural expression of praxis, whereby activity/experience and meaning/knowledge are mutually constitutive. I propose another way of interpreting Schön. My contention is that applying a psychoanalytic lens, particularly one based on Bion’s epistemology of how knowledge arises in the intersubjective relationship between two people, can, for caring professionals, give a different, and potentially useful, characterization of what goes on in ‘uncertain moments’ when teachers engage in practice in the classroom. In addition, a Bionian lens suggests that there is something inherently uncertain in ‘the moment’ when caring professionals relate intersubjectively to their clients, and that this ongoing process of uncertainty equates with the process of coming to know, in a truly useful sense, about the client or the child as a truly autonomous if ultimately fully unknowable person.

Bion’s Epistemology

Bion (1962) formulation of the term ‘learning from experience’ refers to a particular type of learning, in which we come to know, or even to have thoughts, through the relationship that we have with others, starting with our earliest relationship with our primary caregiver. This process is fraught with the difficulty of staying with the experience of uncertainty. Those wishing to ‘learn from experience’ need to shy away from the easy temptation of rushing to quick certainties, just as I might have wanted to ‘jump in’ and help Avi with the dreidel. Bion (1962) developed his system of epistemology based on Klein, proposing that the process of coming to know depends on the development of the ability to tolerate the frustration of uncertainty – of ‘not knowing’. Klein (1923) theorized that for the infant to experience the good, loving mother as also possibly hateful was overwhelming, and that instead, in phantasy (unconscious imagination), the infant would ‘split’ the mother in to a good loving mother and a bad persecutory mother. This process of splitting becomes a fundamental process of the

unconscious mind. Klein denotes the mind, in the process of defensive splitting of aspects of the world in to idealized good and hateful persecutory bad parts as being in the 'paranoid-schizoid' position, which can alternate with the 'depressive position' in which guilt leads to reparation and reconciliation.

In *Learning from Experience* (Bion, 1962), he proposes that it is the growing toleration of frustration signified by the development of the depressive position that allows 'thinking' to develop. Thinking and/or thoughts are what happens in the space where the infant can tolerate the non-appearance of the breast or other part-object, as opposed to evacuating it in paranoid-schizoid mode. For Bion, the process of thinking and learning is rooted in the developing ability of humans to tolerate uncertainty and 'unknowing'. As such, relationship is at the centre of Bion's epistemology. Bion also extends Klein's concept of project identification. Linked to her theoretical development on splitting, Klein posits that in phantasy the infant splits off parts of the self that are felt to be negative or hateful. These split off parts are then projected out on to an external person. There is then an unconscious identification to this split of element of the self residing in this external person. This may be associated with unconscious evocative behaviour designed to make the recipient of the projection behave in accordance with the projective phantasy. For Klein this was a defensive mechanism, but Bion reframed it as a normal process of communication from the baby to the mother, in which the mother can process the baby's unformed anxieties with her free floating benign attention (reverie). For Bion, this unconscious pattern of communication is the central driver of how the baby comes to think. Bion (1962, p.91) suggests that the baby has a pre-conception (an instinctual thought in its first instantiation) of the mother's breast. When the breast is absent, so that this pre-conception cannot be realized, the baby feels that it is going to die. In normal development, according to Bion, the baby uses projective identification to communicate with the mother. In this case, the baby cries, with the intention of provoking in

the mother the same feelings that the baby is having, i.e. 'I'm going to die', thus projecting its feelings of annihilation in to the mother. The mother, again in the course of normal development, uses her maternal reverie to process these feelings. The mother can, in a process that at least initially occurs to a significant extent in the unconscious, recognize the communication contained in the projection, and her response to this communication models for the baby that such communication is real and possible. This establishes or represents a constant pattern of communicative interaction between mother and baby. We can see here in more detail Bion's broadening of Klein's idea of projective identification as a pathological process to one of normal infantile intersubjective communication.

Thus the mother can both tolerate this projection of anxiety from the baby, and can tolerate her frustration in not knowing what it is that the baby wants. In this gap of toleration, thoughts arise and the mother then thinks, actually the baby is not going to die and what it needs is a feed, or she investigates what the baby might need. The baby receives unconsciously this communication of 'you are not going to die' back from the mother. The baby is then able itself to tolerate the frustration of waiting for the breast. So when the baby then receives the breast, its pre-conception is met with realization, leading to a conception. The initial development of the thought of the breast becomes possible. For Bion, the development of thought is rooted in the ability to tolerate frustration, or to put it another way, to be able to tolerate not knowing whether the breast will return. Perhaps the next time the baby feels the absence of the breast, due its ability now to begin to formulate the thought of the breast, it can wait a little longer before the mother reacts and in that space where the baby is tolerating frustration it can think about what is not there. Thus the baby can create a mental representation of the absent breast, which is a thought.

Further, Bion considers the formation of a conception to be part of an ongoing cycle. He proposes that when a conception is formed, part of it remains 'unsaturated', i.e. part of its

meaning or the understanding it represents is not fully formed. In this space of ‘not knowing’, the search for the next realization and the formation of higher concepts can take place. In simpler terms, every piece of understanding that we attain (and for Bion this framework is how thinking and thoughts develop throughout life not just in infancy) has within it the seeds of further questions which we go on to (painfully) explore.

Bion extends this approach to the work of analyst and analysand. The analyst thus serves as a container for the projected anxieties and pain of the analysand, and allows ‘thinking’ to develop. Extending this further to other contexts such as the classroom, as others including myself have done, teachers might, similarly to the mother in infancy, act as a container for the child’s frustration extant in the process of learning, and thus allow ‘thinking’ to develop.

Tracing Bion’s Thinking

Bion’s work can be split in to two phases. The first phase of writing covers the 1950s and the beginning of the 1960s. Bion develops Klein’s ideas, introducing in particular a theory of thinking, and approaches to practice for the psychoanalyst.

In this phase, Bion sees himself as being in search, perhaps similarly to Freud, of a scientific approach to psychoanalysis.

There is a precise flavour to his writing which can be seen in his use of innovative notations introduced in his theory of thinking and the use of mathematical notation in the *Elements of Psycho-Analysis* (1963), *Attention and Interpretation* (1970), and *Transformations* (1965), to denote how the analyst transforms what the analysand has been saying. Bion (1965) uses the term transformation analogously to the idea of a mathematic transformation, where for example a shape is transformed in size. Just as in the mathematical transformation, when the analyst transforms what the analysand has presented, certain invariants remain. For the shape, the ratio of the length of the sides is invariant, whereas for the analyst-analysand, it may be something of the key emotional content of what was said that remains invariant.

In the second phase of Bion's writing, from the 1970s onwards, the influence of Kant on his thinking becomes more evident. Bion introduces the use of the term 'O', which can be thought of representing the agentic core of the analysand, in the sense of Kant's noumena - the core that experiences the anxiety, and that projects them out to analyst. This core is both in flux and inherently unknowable in totality to the analyst. But it is through the process of unconscious communication that it can be brought in to contact with and translated, albeit always contingently, to conscious cognitive thought and verbal expression. This happens first in the mind of the analyst in a process akin to that of maternal reverie, and then through the relationship between them in the mind of the analysand.

Bion uses the terms 'O' and also the terminology 'becomes' in relation to the analysand in the same sense that Kant did in the 'Copernican revolution', namely that the existence of a noumenic world is what implies the possibility of free will, and of an agentic human subject who can choose what they 'become'.

‘I shall use the sign *O* to denote that which is the ultimate reality represented by terms such as ultimate reality, absolute truth, the godhead, the infinite, the thing in-itself’.

(Bion, 1977, p.27),

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Bion describes an unending dialectic between conscious and unconscious thought, which is mediated through *O*. In the analytic session, the analyst’s task is, as James Grotstein, who was an analysand of Bion and one of his significant commentators puts it, to:

‘intuitively responsive to...his waveband of O, which then resonates with the analysand’s psychoanalytic object, his own O, which is characterized by his Ultimate Reality.... Thus the analyst’s O becomes resonant on that ineffable ‘waveband’ with the O of the analysand, which the former must then transduces or transform for the analysand...as symbols in the form of interpretation; if accepted, it then becomes transformed into the analysand’s personal O’

(Grotstein, 2007, p.117)

However, *O* is always in flux and there is an ongoing dialectic between cognitive verbal ‘interpretations’ and the ineffable *O*, which never come to an end point, but continue in an iterative reflexive relationship. When this happens, a pattern, picked up via this process of unconscious communication, emerges in to the conscious mind of the analyst. Bion terms this the ‘selected fact’ (1967, p.48), a particular type of emotional knowledge of the other, whereby a ‘constant conjunction’ of emotional communication becomes clear, or saturated

enough, that it can be given a tentative label by the conscious mind. Crucially Bion saw these as involving the application of existing conscious psychoanalytic theories such as the Oedipal Complex, but these theories are applied flexibly, tentatively, to the particularities of the analysand as they are presented in the consulting room. They become a new individual theory for that particular analysand, in the context of that particular encounter between a particular analyst and analysand, always partly ‘unsaturated’, partly still unknown. Thus the process of engaging in uncertainty is always ongoing, always contingent on what might be developing for the analysand in each new moment. For Bion, this is a painful, difficult process for both parties. Going through the uncertainty of ‘not knowing’ the analysand, of foregoing the easier path of premature flight in to the desire for certainty, for being able to say ‘yes, this is the analysand, this is his category, this is his solution’, is difficult. Yet it is only in this way that the analyst can truly come to know the analysand, and at the same time, through tolerating the frustration of uncertainty, to facilitate the analysand truly coming to know himself. The patient in the process of ‘becoming comes to know his own ‘O’, his own inner self, through the facilitation of the analyst.

Grotstein (2007, p.305) notes that Bion’s use of the term ‘become’ derives from Plato’s idea of ‘that which is always becoming’. This applies to the analyst, who through his reverie, the resonance of his ‘O’ with the ‘O’ of the analysand, ‘becomes’ the analysand. This does not suggest a merger, but rather a deep intersubjective meeting in relationship. At the same time, the analysand, through the transformative experience of having his being recognized by another, is able to come in to contact with his own ‘O’, and thus to ‘become’ himself.

Experiential and Theoretical Knowledge

Bion’s stance represents another position from which we might interpret Schön and think about professional practice based on a conception of relationships between minds that is

based on the ultimately unknowable noumenal reality of the human subject, that somehow becomes (again partially and contingently) known to the analyst through intersubjective encounter, an encounter in which the analysand is helped to 'become'. In this alternative view of what Schön might mean by 'in the moment', productive uncertainty refers to the meeting point where one autonomous agentic person grapples with the difficulty of coming to know the other, and through that difficult encounter facilitates the growth of another autonomous agentic human subject.

I argue that Bion's quasi-mystical dialectic offers one way of interpreting what Schön is trying to get at in his idea of Reflection-in-action, of conceptualizing the relationship between how theoretical and tacit knowledge intercalate 'in the moment'

Let's come back to the Schön's tight rope walker example. As Schön intimates, if they sit on their unicycle, balancing on the rope, and start consciously thinking, 'Is the pole pushed too far out, did I check the rope properly?', then we can guess what is likely to happen. If we re-interpret this in Bionian terms, we could say that they need to suspend the desire for certainty based on knowledge, and rely on their unconscious intuition. True, in this, the intuition is in relation to the manipulation of a physical object. The emergence of the selected fact – 'this is the time to move the pole up a few millimetres', arises based on the walker's use of his free-floating attention in relation to the physical task. Yet the walker still might have a body of theoretical knowledge about tightrope walking - 'check the rope is tied at both ends carefully before you start, don't tip your pole over too far to one side.' They make use of and can to a greater or lesser extent consciously talk about this knowledge in relation to their practice (knowledge that can't easily be put in to language *yet* is one, but only one way of conceptualizing what tacit knowledge is). In Bionian terms, this doesn't disappear when the tightrope walker is on the rope, rather it is made use of unconsciously as a pre-conception

which is then saturated by the actual experience of that particular tight rope experience. From this perspective, theoretical and tacit knowledge are tightly intertwined in dialectic tension, so tightly that they almost merge. Not the merging of a socio-cultural interpretation of Schön, and not quite the stark separation of theory and practice that cognitive interpretations imply either, but rather a different epistemology where theories remain free and flexible, both general and specific, and where they are continually adjusted (the dialectic) to the moment to moment experience.

In the classroom, teachers too often have the experience of ‘being in the zone’. In fact, it is precisely when they have 30 children all vying for attention at once that they could be typified as demonstrating ‘Reflection-in-action’. Their (extensive) body of knowledge – about behaviour management, about teaching techniques, about approaches to teaching maths, about how to model column addition, is not at the forefront of their conscious minds. Teachers don’t have the luxury of taking 10 seconds in the midst of a classroom exchange to think about what they will say or do. Often they need to make decisions and react to events instantaneously, ‘in the moment’. Similarly to the rope walker, their knowledge about teaching doesn’t disappear, it is made use of unconsciously as a pre-conception, which is then saturated by the actual experience of that particular teaching experience to create a saturated formation, a thought translated in to action, that is the decision to choose a particular teaching strategy in a particular moment. We might modify Schön’s concept of reflection-in-action, when viewed through the lens of Bion’s ideas, so that it becomes intersubjective reflection-in-action, where the premature for certainty is pushed in to the background, to allow the ‘selected fact’ to emerge from the matrix of knowledge, predicated on a dialectic view of theoretical and experiential knowledge. Importantly, the tension, or perhaps better dialectic, between the two types of knowledge, the productive use of uncertainty, is what leads to really knowing about the other.

For Bion, knowledge about the analysand (or the child) arises first from intersubjective communication, mediated through the transformation of O. When focusing on implicit and explicit knowledge, the key move is from pre-conception to conception – an unsaturated state of mind meets with a negative realization (this doesn't quite fit, this doesn't quite work), and if the uncertainty can be tolerated, and a flight into anxiety avoided, it is possible for a conception to arise. This move from pre-conception to conception is essentially experiential – it involves the analyst being in direct unconscious emotional communication with the analysand. It is inherently implicit, and is not based directly on reference to a set of theoretical knowledge. When conceptions become saturated, the analyst (or the teacher) may engage in the abstraction of conceptions into more advanced constructions of thoughts. This construction of thoughts is, for Bion, based on noticing similarities between phenomena, and developing links between them.

In the consulting room the analyst uses his cognitive function, in collaboration with the analysand, to explore the meaning of the shared intersubjective communications they are engaged in (the emerging conceptions). This process of abstraction does not happen in a vacuum, however, but rather the analyst makes connections to an existing body of psychoanalytical theories – a body of professional knowledge. It is, however, a circular iterative (or dialectic) process – the use of the cognitive comparative functions – attention, research and action, is bounded by the need to realize that any arising conception must inevitably have a new unsaturated component. So the arising system of knowledge, or theoretical framework, still has to be grounded in the on-going intersubjective relationship. The analyst needs to keep checking back, on an intersubjective level, that the abstractions that they have made still correspond with the experience they are having with the analysand.

Bion's epistemology proposes that any theory needs to be connected to the intersubjective experience of the professional and the client. The professional, just as with the analyst, must get to know the client, and use theory in a way that remains true to that intersubjective experience. Further, they must also build a new theory about that client that again remains true to that same intersubjective experience. This is where uncertainty is productive and where the premature desire for certainty is unproductive. Bion's epistemology directs the analyst to first hold 'in the moment', in Schön's moment, for long enough for the intersubjective knowledge of the other, intertwined with but not subservient to theoretical knowledge, to come through the unconscious to the surface. My contention is that this model of thinking has something of value for teachers, particularly in their work with children with SEN, an area replete with theoretical models.

This cognitive/emotional view of praxis is also unashamedly idealist, following Kant in viewing people as autonomous choosing unitary subjects. It is not a return to the religious metaphysics of Kant, undone in its surface form, as Ward (2006) amongst many implies, by the discoveries of evolutionary biology. Rather Bion echoes the concerns of troubled naturalists such as Fodor (2007), and Furedi (2004), as to how we can properly account for the emergent properties of consciousness. In contrast to sociocultural interpretations of Schön, the unity of the subject is championed; indeed in the framework of productive uncertainty, it is by coming in true (albeit always partial) emotional contact with this unitary analysand, that the analyst can come to truly meet their needs. True, this could be conceived as an unconscious process, but not one based on an unconscious as Lacan or Derrida view it where there is no true identity at the end of traces or signifiers. Rather it is Bion's rather grander view, closer to Freud's original conceptualization of psychoanalysis as a route to empower the patient, of a meeting of minds through unconscious to unconscious

communication, the waking dream which is the royal road to coming closer to knowing the individual.

Implications for Special Educational Needs

Productive uncertainty implies a particular position on agency, and this can be applied at the level of the analyst and the patient (or analysand), and potentially by extension, to the teacher and the child. For the professional, the existence of a productive uncertainty which sits between rules and performance must on the face of it be predicated on an 'I' that chooses, that moves from uncertainty to decision. For the child, or the teacher-child dyad, if knowledge arises from intersubjective relationship, this implies two agentic subjects, for otherwise what is it knowledge of? Just as Buber's 'I-Thou' encounter (Buber, 1956) is predicated on a knowing mind with intrinsic value encountering another of intrinsic value, Bion's focus on the intersubjective relationship implies a similar encounter of knowing, relating minds. Bion's philosophy could be considered as 'I relate, therefore I am' (Andrew Cooper, personal communication). I see Bion's account of thinking as an agentic account of both the analyst and the analysand, and as such is explicitly in contention with determinist accounts of the human subject, particularly in terms of their relevance for how we think about working with children special educational needs..

Deterministic accounts arising from the Enlightenment, spanning Comte, Spinoza, Marx, Freud, and Darwin can be seen as having devalued the currency of the idea of a freely choosing agentic subject whose future is at least to a significant degree undetermined, by genes or by social background.

As Jonathan Sacks writes, 'what makes human action free is that it is future orientated [...] freedom is written in the future tense' (2007, p.59). What profession could be more future orientated than teaching? Whatever view you take of the purposes of education, it has to have something to do with creating the future through the development of the child. Deterministic

accounts of human nature, which sometimes interpenetrate with public policy, also tend towards the specification of tightly defined sets of rules about professional practice. This is particularly true in relation to the work of teachers with children with special educational needs (SEN). Psychiatry and cognitive psychology, clear products of the Enlightenment, in applying a scientific lens to the human subject, tend towards the specification of rules and procedures for particular diagnostic categories. Of course, sociological critiques of the role of psychology in special education, based to significant extent on Foucault, such as Henriques et al. (1988) and Barton (1988), have highlighted the dangers of scientism in this application of psychology, although, of course, such critiques are themselves predicated on another sort of deterministic account about human action.

The dangers of determinism could be considered to have increased in recent decades with the rise in the influence of evolutionary psychology and neuroscience influenced by genetics on education. Exaggeration notwithstanding, if the teacher sees the child as an agglomeration of genes, of which some are ‘faulty’, and it is the phenotypic expression of these which determine both their present capacities and future abilities, it is not a very large step in to the allure of a set of scientifically derived procedures for dealing with this particular phenotype. The influence of such a mindset on all teachers, but particularly in the context of working with children with SEN , even if only partial, will tend to further reduce the space available between the rules and the performance where productive uncertainty based on intersubjective relationship between agentic subjects could also lead to the derivation of a valuable type of knowledge. As an example, in the case of my encounter with Avi, I might have grasped for a theoretical construct about Attention Deficit and Hyperactivity Disorder, rather than staying with him ‘in the moment’.

Clearly, there are indeed elements of exaggeration in my account, and it should not be taken to suggest that I am embarking on an anti-Enlightenment, anti-scientific enterprise, nor one

that ignores the legitimate and complex debates about accounts of consciousness and free will in metaphysical naturalism, as well as the nature of agency going back to Kant. There is also more that could be said about the relationship between determinism and agency, although I think it is clear that in my interpretation of Bion, particularly bearing in mind the stark influence of Kant on this thinking, I am setting out an incompatibilist libertarian view, which follows Ginet (2015) in viewing free human decisions as being essentially uncaused. From this perspective, I am arguing that Bion's relational perspective bolsters the case against compatibilist positions on determinism such as those of Dennett or Kane, which even Ginet admits that due to advances in neuroscience are in the ascendancy.

Yet being a libertarian is not in conflict with recognising that psychology, neuroscience and even evolutionary biology have much to tell us about how children, including children like Avi, learn in ways that can productively inform the practice of teaching. Bion's epistemology has the use, development and application of theory at its centre. The question which Bion's thinking highlights is how professionals make use of theories in practice now, and how they should make use of them in the future. This is of particular relevance to the work of teachers with children with SEN, where theoretical knowledge about diagnostic categories holds such promise and such danger.

Bion's powerful ideas point towards the need for teachers working with children with SEN to develop a model of professional practice that has the struggle with uncertainty at its centre. Bion's epistemology suggests that teachers will make the best use of theoretical (or scientific) knowledge related to diagnostic categories if they do so in a context where they recognize the paramount importance for them as caring professionals to genuinely engage in the difficult,

uncertain but ultimately so productive emotional encounter with the real human others that inhabit their classrooms.

This argument may, to some, seem glib or obvious. Surely, you will say, teachers know this already. Is it not the case that doctors and nurses and social workers also know it, even if they do not always succeed in putting it in to practice? In answering this not unreasonable question, I refer to Furedi's (2004) writing about the wider medicalization of social experience,

My objection to the contemporary representation of the vulnerable self is based on the conviction that it disempowers people and distracts them from gaining a measure of control over their lives. Through cultivating a powerful sense of vulnerability, it undermines subjectivity and the sense of human agency. The continuous transmission of cultural signals that suggest that in an ever expanding range of circumstances people should not be expected to cope encourages the professionalization of everyday life.

(Furedi 2004, p.414)

It is here that the instrumentalization of teaching, and of the caring professions, poses a risk, a risk to the professionals themselves, in terms of a deadening of their professional identity, but more crucially a risk to the children and adults that they work with. Their sense of themselves as agents, is placed at risk in a general culture where, as Furedi has identified, determinism based on genes, or determinism based on how your parents live, or a determinism based on what category box you are in (whether you have Autism or Attention Deficit Disorder, or Dyslexia...), undermines the possibility, in Bion's words, of truly 'becoming'. None of this, of course, is meant to belittle the need for caring professionals or their role in society. As Furedi notes, '[...] there was a time when enlightened...professionals were critical of the

tendency to medicalize human experience' (op. cit., p.415). Well, there still are some voices that heed this call, but they are in danger of being drowned out in the 21st century. This is why Bion's perspective on professional practice is so important. His work's call to the teacher is to be critical of the tendency to make your children a category, to ignore the true human other across from you, to use theory and category too early and avoid the difficulty of contending with the uncertain, agentic other. Teachers who heed this call will, I contend, by following in the path laid by Bion's emotional epistemology, hold on to the possibility of uncovering the possibilities that their children possess. This is particularly, but by no means exclusively, relevant to children with special educational needs. Such openness to possibility denoted by the idea of productive uncertainty also has application both across the curriculum for teachers, and by extension to other caring professions. The dangers of a determinist worldview when applied to professional practice are particularly acute when public policy serves to instrumentalize these professions. This same concern is at the root of Schön's project, when he highlights the flaws in a technical rational model of the professions. For the caring professions, particularly when in public (unconscious) imagination they both hold the responsibility for the ills of the world, and the certain solution to them as laid down by government in its role as custodian of scientific rationality, there is also significant danger of de-professionalization in which policy directives and classroom prescription aim to reduce the space for teacher thinking, to make teaching not a craft, not a profession, but a technician's role

Bion's thinking provides, I feel, some counterweight to societal policy trends which lose sight of the crucial role of the teacher's relationship with the child in coming to know their needs, and promoting their agentic development. My central objective has been to introduce the idea of productive uncertainty, where tolerating the difficulty of not knowing, can

ultimately lead to a better, more nuanced, more flexible understanding of the human other across from you. This is particularly relevant for teachers working with children with special educational needs, but also to all those others, doctors, nurses, social workers, who also need to hold off from the flight in to premature certainty when working with their patients and clients that Bion so importantly warns us against.

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