

**A psycho-social perspective on
professional uncertainty: knowledge,
theory and relationship in the
classroom**

DEDICATION

For Eva, my wife

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FOREWORD

It is a privilege and a pleasure to write a foreword to this important, progressive and profoundly thoughtful book. Too much research and academic writing aimed at helping professionals with their day to day practice remains remote from the lived experience of the work, the minute by minute, hour by hour struggle to makes sense of what is happening for the practitioner and those with whom he or she is engaged. Joe Mintz knows his craft as a practising teacher from the inside, and in the research that informs this book spent many hours undertaking close observation, and then systematic reflection upon his records of the emotional and practical transactions of a number of teachers with their students. In the resulting case studies which lie at the heart of the book, teachers everywhere will recognise themselves and the anxieties and uncertainties that attend their everyday classroom experience. The author's conviction is that 'uncertainty' – about what is happening in the minds and behaviours of students and teachers alike - is an experience we should not be afraid of or seek to eliminate, but embrace in our search for an authentic pedagogic practice and philosophy.

What he terms 'productive uncertainty' is not the same as professional confusion or helplessness, although it may require us to traverse moments of this kind. Rather, it is a necessary precondition for genuine engagement and understanding – ultimately of *connection* with the student and the meaningfulness of learning, in the context of the student/teacher relationship. Here Joe Mintz is drawing on particular aspects of traditions of thinking about professional practice developed over many years at the Tavistock Clinic in north London. 'Learning from experience' is a central principle of this approach to professional development, and of the key thinker with whom he engages, the radical and visionary psychoanalyst Wilfred Bion. Bion believed that 'emotional

experience’, as well as a capacity to reflect on such experience and give it shape and form through words and ideas, lay at the heart of all true ‘thinking’. But our emotional experience in classroom or therapeutic encounters often overwhelms us and makes us anxious. ‘Productive uncertainty’ is the zone in which we first tolerate these uncomfortable moments rather than flee from them, and then allow meaning and understanding to take shape, often with the aid of colleagues who are able to engage in a similar quest of their own.

Joe Mintz’s engagement with Bion leads him into a profound and illuminating dialogue with the possibly more familiar work of Donald Schön, in search of a synthesis that seems to me to deepen our appreciation of the relevance of both for modern educational philosophy. So, this is a multi-layered book and one which I believe will repay sustained engagement from the reader of the very kind it proposes should lie at the heart of ‘good teaching’. I was fortunate to play a small part in the process of the research which informs the book. But like all original and innovative thinkers, Joe has developed his work well beyond anything that I myself was able to offer him, and in his search for a properly psycho-social account of contemporary pedagogic practice has also signalled new directions for the work of Tavistock theorists and teachers. I believe this book will make a lasting contribution to our thinking about what it is to teach, to be a teacher, to learn, and above all to the health and vitality of our struggle to sustain recognition of the subtlety, complexity and significance of the educational task.

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Chapter 5: Case Studies of Teacher Uncertainty

INTRODUCTION TO THE CASES

Five teachers are presented: Lynne, Kathy, John, Mandy and Penny. We have met some of them already in material presented in earlier chapters. They have rich, complex and varying experiences of working with children with autism. The cases are presented roughly in the following pattern:

1. Their background, teaching history, and role in the school
2. An overview of the children that they are working with in the context of the smartphone app
3. The teacher's experience of working with the children

The cases serve to illuminate a range of themes, including: the teachers' experience of uncertainty when working with children with ASD, including uncertainty about diagnosis and its

implication; the ways in which teachers do (or do not) tolerate uncertainty in working with children with ASD; and their ability to tolerate frustration and to come in to intersubjective contact in the teacher-child dyad. There is also considerable material on the interplay between theoretical and tacit knowledge in the teachers' work with children with autism; and how they deal with issues of autonomy and agency in relation to working with these children.

As such, they serve to demonstrate how Bion's emotional epistemology provides a different way of looking at the relationship between theoretical and tacit knowledge in the work of these teachers. Uncertainty, as an overarching theme, threads throughout the cases, and the psychoanalytic part of the psycho-social approach is used to further illuminate this. There is also considerable uncertainty, from my perspective as a researcher, about the cases. The meaning, particularly the emotional meaning of utterances and events is often uncertain. However, following Bion, I hope that I have been able to tolerate the uncertainty at least enough to be able to allow some plausible and productive accounts of the teachers' experiences of uncertainty itself to arise.

The cases also highlight methodological considerations, including the way in which a modified infant observation approach makes use of countertransference responses as a research tool, and the way in which the use of audio recording and comparative category coding make a difference to in the data produced.

LYNNE – GETTING THERE

Current Role and Career Background

Lynne works as a teacher with older children (16-18) at the Post-16 site, which is a short distance away from the main school site. Her students follow a mainly life skills curriculum designed to develop independence. Lynne has been working at the school in various roles for 12 years and before that she worked in early years. She used to run her own nursery, and then, when her children reached secondary school age, she did an HND in early year's education and then started working at Randall School as a support worker. After that she did a part time post-compulsory teaching qualification. Lynne previously taught predominantly at the main school site, only working at Post-16 once a week, but one year ago she took on her current post, which is as Further Education Co-coordinator, in her words 'so I'm the coordinator of Post-16 rather than the teacher' and works fully at Post-16.

Lynne's background in special needs education and autism more specifically was limited before coming to Randall School. Her reported motivation for coming to work at the school was that she had a friend with a child with autism, and thought that the job at Randall School sounded interesting.

Although Lynne is often positive about her experience of her role and working with children with autism, she refers on a number of occasions to a feeling of isolation linked to the separate locale of the Post-16 unit. She feels that she misses out on things going on at the main site, and that often her needs are often overlooked. She also feels that people on the main site forget about her, so that she misses out on sometimes important news and events.

Key Information Sources for Lynne

Interview and observations were undertaken with Lynne as follows:

1st Interview 7 October 2009

1st Observation 4 December 2009

2nd Observation 25 March 2010

2nd Interview 25 March 2010

3rd Observation 28 May 2010

3rd Interview 28 May 2010

4th Observation 2 July 2010

4th Interview 2 July 2010

Lynne's Children

Lynne has three children using the app, Tom, Patrick and Alan. The focus of the observations and the interviews was mainly on Tom. Although there was some observation and interview review of Patrick and Alan, this was more limited in scope, and in the analysis presented here, the emphasis is accordingly on Tom.

Tom was born in 1992, making him 17/18 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 89, a VQ of 87, and a clinical psychiatric diagnosis on entry to the School of autism. He had no other co-morbid factors.

Tom lives at home with his parents during the week and attends the school on weekdays.

Classroom observation data, teacher, child and parent interviews, informal visits to the school

and the baseline dataset form initial impressions of Tom, in the school environment, as a generally polite and reasonably intelligent young man. He is good at using technology, likes using it in his free time, and is able to pick things up quickly. He is well liked by other students and often friendly and sociable with classmates. Academically Lynne places him at a working around three years below the average level expected for his age in English and maths. His communication skills are well developed and he can hold mature and sensible conversations. Due to difficulties in representing and planning time, Tom struggles to organize himself and finds it difficult to do things like getting ready for lunch, transitions between lessons and packing a packed lunchbox in the morning. He also finds it hard to discuss and understand his feelings and emotions. He also tends, according to reports by Lynne, independently of issues of lack of sleep to be typically quite lethargic and unmotivated, typified by a 'I don't really know' attitude.

Working with Tom

On a number of occasions Lynne noted her concerns for what will happen in the future to Tom and the other young people she is working with. This is exemplified in the following extract from the third interview with Lynne, where she discusses her anxieties:

[...] I think Tom ... I don't know. He wants to stay at home with Mum and Dad and never wants to leave. Don't see the point of work ... there is no ambition there to do anything or ... I really don't know with Tom and I mean, he'll only have one more year with me after this year ... and he's been ... because of his ability he's not going to get any support when he leaves us anyway because he won't come under ... I don't know if you know how it works with adult services ... but because he hasn't got a learning disability he won't be

accepted by them, so basically he won't get any help when he leaves us anyway. It's all going to be down to the parents fighting for stuff for him. Tom does worry me because I just think what is he going to do with his life? Okay, he could go out independently but he wouldn't ... he's too set in his own ways to change at all. Say if you was interviewing him and you actually said something that he didn't like he'd argue with you and get annoyed and sort of like if you're in a workplace or whatever he's not going to be able to act like that is he? But I don't know with Tom. One day ... I mean some days he comes in as bright as anything and he says, 'Can we go and do this, can we do that?' and you think, 'Oh maybe he could!' and then another day he'll sit there and he'll fall asleep!

Lynne is conflicted about Tom. She wants to promote his independence, she has a belief on one level about what he can do and could achieve. Yet at the same time she is beset by doubts about whether there are in fact capability limitations, deriving from his autism that will prevent him becoming independent in the future. Although she doesn't state it explicitly, it is reasonable to infer that she considers his inflexibility in thinking, 'he's too set in his own ways to change at all', to be atypical, something resulting from this autism impairment. The phrasing is reminiscent of language more commonly used to describe middle aged or older adults, not a 17 year-old labile adolescent. For Lynne, it seems difficult to think of Tom as a typical adolescent boy.

This difficulty, or uncertainty, in how to think about Tom, is further illustrated in the third classroom observation which took place at the end of May 2010, before the summer half-term break. One of the technical issues with the implementation of the app was that for a time the

internet connection on the smartphones was lost, and this is a significant area of concern for Tom, which is evidenced in the material.

In this extract from this observation, Lynne has been reviewing the use of the tool with Tom. Much of this has centred on a ‘personal trainer’ intervention that Lynne developed on the app, in conjunction with Tom’s dad, which is designed to remind Tom to go to bed, and so stop him being so tired during the following day. This has, up to this point, proved rather ineffective, and as becomes evident in other data, this is largely because Tom doesn’t understand why he needs to go to bed earlier:

As Lynne starts to talk to Tom...he interrupts and starts asking when the internet is going to be put back on the phone. He has face resting on both his hands, which are close together in front of him with his elbows on the desk – his fists are tightly clenched and he has an angry expression. He looks angry as he asks about this. His voice tone is slightly winy, although generally not very expressive. Lynne stays very calm – she has her chin in her hand and one arm outstretched openly on the table in front of her. Lynne explains, in the lilting tone that I noted in previous observations, the reasons why the internet is not there. Tom continues to complain, although he gradually unclenches his fists and makes more and more eye contact with Lynne. She tells him that he will be getting the SIM card back, but that it will initially only be for phone calls and texts, not for internet. He looks very unhappy at this.

After this observation, I noted how this exchange made me feel somewhat uncomfortable. There was something that struck me as strange, but I could not quite put my

finger on it. Later, during the review and coding of the data, reading this section again, and listening to the audio, it struck me that what was making me uncomfortable was the lilting tone, which was rather reminiscent of how primary teachers talk to eight year-olds and atypical of how teachers talk to 17 year-old young adults. I also noted that Tom's demeanour also has something 'baby like' about it, and there is a certain dependent, helpless quality in his interaction with her. However, in the immediately subsequent section of the observation there is a striking change:

Eventually Lynne tells him that he can discuss it with Donald (the school's Educational Psychologist and the school's lead for the technology project) if he likes and that Donald will be able to discuss it with him. Tom relaxes when Lynne says this and nods; Lynne moves on, rapidly moving to discussing the calendar function and the appointments that she has set up on the phone (mirroring his timetable). I observe that Tom now has his hands on his head, and his face looks more relaxed – he seems to have cheered up a bit. Lynne moves slightly closer to him, shifting her body forward slightly in her chair. Her voice becomes more lilting in tone and she asks him to show her how to get on to the intervention activity that she has set up on the smartphone. Tom takes the phone, still with Lynne close in and looking over with him. He navigates the phone with the stylus quite fluently and activates the personal trainer intervention. He runs through the intervention which has a series of images with text at the bottom, with some sounds.

As soon as speaking to Donald is mentioned – a very adult approach to thinking about this technical issue with the technology, Tom relaxes. It is also relevant to note that Lynne moves on rapidly. On reading the transcript as a whole, my sense was of this vignette

exemplifying the tension for both Lynne and Tom between his desire to be treated like an adult and his inability to act independently. It also seems as well that when Lynne ‘moves on rapidly’ it may be that in this instance it is hard, in Bionian terms, to stick with the uncertainty, i.e. it is hard to tolerate this in many ways massive tension of not knowing, and not really being sure what to do. For Lynne, the ever present question is what can Tom really do? Is he a middle aged man stuck in the body of a teenager, unable, as Alvarez (1992) contends, to shift himself out of ‘stuck’ ways of thinking, who has no future as an independent adult? Is he a little boy incapable or terrified of making decisions for himself, who needs adult lullabies to soothe and persuade him to do what’s best for him or is he a teenager who can in fact introject a nascent adult, autonomous function, and who could even derive satisfaction from exercising that function?

This is illustrated in the immediately subsequent section of the observation:

Lynne asks him how he can see all the writing on the screen [if the text is too long, just the first two sentences show initially]. Tom says, looking rather unsure, ‘Scroll it?’

Lynne takes the phone and shows him, ‘you just push it up like this’. Tom nods in understanding – Lynne passes back the phone and he has a go himself. Lynne then moves on to adding appointments. She says that she asked Dad to show him how to add an appointment – ‘Dad showed you that, didn’t he?’ but Tom shakes his head and says ‘No idea’. He is quite unresponsive – he just shakes his head slightly when saying this, but sounds rather uninterested – as though this is nothing to do with him.

It’s quite striking here how as soon as Dad is mentioned and Dad’s agenda, Tom’s whole attitude and demeanour, previously more engaged and interested, becomes negative, ‘as though

this is nothing to do with him'. For a short period, Tom had sustained, albeit with Lynne's facilitation, a lively autonomous interest, in this case in relation to the app. It seems though that the introduction of Dad's interest in the activity punctures this transient sense of independent thought and action.

It is important to note that, of course, the tension between adult and child-like states is typical of adolescence in general, as indeed are ambivalences about parental authority. Yet for Lynne, and probably on some level for Tom as well, autism complicates things considerably. Whether because of its intrinsic effect on Tom's capability, or due to how Lynne and the school position him because of what they believe about what it means for Tom, or both, the autism diagnosis aggravates the already significant uncertainties that adolescence invokes. In particular, anxieties about whether Tom can ever really become truly adult in the future loom large.

It is also relevant to note that the whole analysis of Lynne and her interaction with Tom was predicated on an uncomfortable feeling that I had when I listened to that exchange. I propose that this is an example of countertransference at work in the observation. Lynne's uncertainty about how to work with Tom in that moment, underlied by all the complexities of issues of capability and the meaning of the diagnosis, was picked up by me as an uncomfortable feeling. As is commonly the case with countertransference in infant observation, as Margaret Rustin warns, it is not always obvious what the communication represented by the feeling engendered by countertransference is about. It needs a process of reflection, in this research context the review of the transcript and re-listening to the audio tape (in this case without the assistance of the auxiliary ego of the work study group), to unpick what the emotional communication was about.

Coming back to the content of this vignette, and my commentary on it, I certainly do not bring it in order to suggest that an autism diagnosis has no meaning, and has nothing useful to say for teachers in how they work with young people with an autism diagnosis. Far from it. Rather, the tension that Lynne experiences about what the significance of the autism diagnosis is does serve to illustrate how deciding between scientifically (that is psychologically) derived determinist accounts of a student's behaviour, and what is known from intersubjective relationship is a real live issue in the classroom.

Not tolerating uncertainty?

We saw above how Lynne uses the app to set up reminders for Tom to go to bed, which fail to be effective. It seems fairly clear that the app does not play a determining role here— these extant issues about autism, capability, autonomy and independence, and relationships between teachers, parents and child are there already. However, it is certainly the case that the introduction of this new app, designated as something that will help develop social and life skills, has for Lynne, seemed to activate her thinking (at least on an implicit level) about these issues, and illuminated the considerable uncertainty which they provoke.

Some aspects of this thinking as to how Lynne positions the technology bear further scrutiny. It is in fact rather strange that Lynne would think that putting a reminder on an app would make Tom want to go to bed if, as Lynne knew, he doesn't see why he should go to bed earlier. It is possible that Lynne, at least in this instance, positions the app from a perspective of idealization - as though this new piece of technology is going to 'magically' make Tom become an adult, and

in a way provide a short cut that will avoid having to grapple with all these sometimes unbearable uncertainties about him.

A similar reluctance to recognize the obvious about Tom and the going to bed reminders on the tool is seen in the fourth observation in July, towards the end of the summer term:

Lynne then asks if the things she has put on, like the reminder to go to bed, whether they do help? Tom says, slightly more energetically, 'Well they do help'. Tom then says that when he goes to use it it's 'always at low charge'. Lynne has a discussion with Tom about charging the mobile device – she has previously told him that he should put it on charge in his bedroom when he goes to bed. Lynne goes over this, and cajoles Tom in to agreeing that he'll try and do this. I observe Tom – he yawns quite a bit, his eyes are cast down and seem to sometimes flutter almost closed – he seems quite tired. Lynne changes tack and referring to his earlier comment, says, 'so you think some of the evening things are helping you?' Tom says, with marginally more enthusiasm now than previously, 'Well...sometimes they are...yeah'. Lynne asks if she needs to put the 'go to bed' reminder 'a bit earlier now?' Tom continues to yawn. Gently, Lynne says, 'You're still very tired, aren't you?' With a definite tone of annoyance, Tom says quite quickly, 'That's because I keep missing the reminders'... Lynne says, 'why's that?' and Tom says, 'because I keep on forgetting to put it on and it's always out of batteries'. Lynne says, 'Oh right' and then, 'but if it has got batteries and it goes off then it does help...you think?' Tom says, 'Yeah', without too much energy. Lynne gently cajoles Tom, asking

him to try and remember to keep it charged, and then they will just think about putting the reminder back a bit, 'as you are very tired, Tom'.

Although on the surface this extract may indicate that Tom does feel that the going to bed reminders are serving some purpose, in the linked fourth interview, Lynne states clearly that in her opinion he was just saying that because that is what he thought she wanted to hear. Additionally she makes it explicitly clear that she realizes that Tom does not see any rationale for going to bed earlier.

Lynne:

I mean the things that have been put on them are things that have come from parents, us.... but I think with, especially with Tom, because it's what Dad wanted on there and going to his sessions on time was what I wanted on there, he don't see why he's got to change anyway. It's like this going to bed earlier.

Joe:

He can't see why he needs to.

Lynne:

So he, he can't see that he's gaining anything from using it. Do you understand what I mean? If he ignores it, he can stay up later, can't he?

Joe:

Yeah.

Lynne:

So what motivation is there for him to actually take any notice of it? Because Dad wants him to go to bed early.

Joe:

In the observation he did, he said that he thought that sometimes when it went off it was making a difference.

Lynne:

Mm.

Joe:

But do you think he was just ...?

Lynne:

I think he was just saying that. Yeah. Because Dad's told me that, he said it hasn't.

An alternative interpretation is that in these examples, Lynne's reaction is based on a countertransference response. For Tom, due perhaps as Shuttleworth (1997) puts it, to his 'unusual cognitive climate', trying to think leads to very high levels of anxiety, and it is this 'stuck thinking' that Lynne picks up in the countertransference, leading to her ability to think in a flexible, adult and empathic way being hampered by her reaction to Tom's emotional state.

However, this is only one instance and it should be noted that on a significant number of other occasions Lynne's capacity to tolerate uncertainty is much stronger in relation to both Tom, other children and the technology tool. This is a theme that is repeated within and across the cases, namely that mental states are ever shifting, even from moment to moment. As Margot Waddell puts it:

Mental attitudes which appropriately belong to different stages of development, infancy, latency, adolescence, adulthood, will each, at any one moment, come under the sway of emotional forces which are characteristic of one position or the other (paranoid-schizoid and depressive), irrespective of the subject's actual years [...] Such states flicker and change with the nuances of internal and external forces and relationships, forever shifting between egoistic and altruistic tendencies.

(Waddell 1998, p.8-9)

We see what seems to be such a shift in the immediate following section of the third observation:

Lynne, remaining calm and unperturbed, goes on and says that she'll show it to him now then. By way of introduction she explains to Tom what she means by making an appointment – 'Say you wanted to go to the Cinema on Monday....You add cinema....'. She says this slightly theatrically – her eyes are expressive. Tom has the phone and follows her instructions, with an expression of concentration. Lynne reaches close over Tom as he works on the phone. She peers with him expectantly. I observe that Tom is using the on screen keyboard to type quite fluently. Tom is focused and seems engaged

although his mouth is still flat and tight which to me seems to suggest annoyance (although he has had this expression through the observation). After setting up the appointment, Lynne guides Tom to look at it – ‘Day Plan...Week...Month’. Tom asks quizzically, ‘do the blue dots mean that I’ve got appointments?’ Lynne says that that’s right. Tom then says, rather suddenly and in a whining tone, ‘when am I going to get the internet back? I’ve been waiting 13, 14 months for it.’ Lynne glances at me and we both smile. Lynne says, very calmly and quite softly, ‘really, that long?’ Tom then says, ‘will it be when they get a less expensive server?’ Lynne ignores this and says that she will ask Donald to come in maybe that afternoon and have a chat about it with him. Lynne then shows Tom how to switch between the app and the main phone functions. Tom seems quite pleased with this. She reminds him that the phone has a camera and that he can take photos with it if he likes – Tom doesn’t really respond to this. Lynne asks him finally if he is happy with the phone? He thinks for a moment and then says, in a more expressive tone than much of the rest of the observation, ‘yes and no’.

Tom’s somewhat transient grasp on a more adult, independent inquiring function about the activity perhaps becomes too difficult to sustain, and he is invaded by anxieties, perhaps expressed projectively in his focus on the internet not working. Yet here we see Lynne, who previously had seemed less able to deal with the significant uncertainties presented by thinking about concerns about Tom and his capacities in the light of his autism diagnosis, is now more able to deal with Tom’s (perhaps more direct) projections, encouraging Tom to return to a more adult position by again invoking an interaction with Donald. In contrast, perhaps, to the previously described encounter, Lynne tolerates the difficulty of being with Tom and with his

considerable anxieties, is able to manage his projections, to think through the anxieties to work out what it might be that Tom needs, and to gently push him towards a more adult way of functioning. We might consider that Lynne holds on to the uncertainty of working with Tom long enough for a 'selected fact' to arise, drawing, unconsciously at first, on her experience of being with Tom, and in particular his relationship with Donald. That Tom might respond to Donald or the mention of Donald arises as the selected fact. When reviewing the audio tape and the final transcript, I had a strong feeling that there was a marked difference in my experience of the emotional tone between the two observations. I wrote in the observation notes that Tom's 'yes and no' had an adult tone to it, that evokes the depressive position, that perhaps he can here tolerate some uncertainty, linked perhaps to Lynne's greater capacity to tolerate his anxiety in this instance. The psycho-social contention is that the marked difference in my feelings is based on the countertransference, and that this countertransference knowledge tells us something about what was going on 'in the moment' between Lynne and Tom (although as is consonant with realism, not everything, and not with any absolute certainty).

Methodological considerations – the role of the work study group

I have interpreted Lynne's interactions with the app and Tom as providing evidence that Lynne has, at least in some instances, an idealizing position towards it, a feeling that in some way this new magical tool will allow her not to have to engage with the very difficult uncertainties involved in working with Tom.

In other instances, there was evidence that Lynne may have taken up alternative positions. In particular, during the work study review of the second observation and interviews transcripts,

colleagues commented specifically that they picked up on a considerable amount of resistance from Lynne. Further, the discussion during the session indicated that I was strongly defensive about this, partly because to a significant degree I wanted the app to be successful, meaning that I was, in interpreting the material, defended against negative messages. Moreover, as Bick (1964) indicated in her original formulations of the infant observation method, part of the function of the work study group is to help the observer untangle issues that they may, because of their own emotional position, have not picked up. Or, more specifically in my case, to help them identify where they may have had too strong an unconscious reaction to the material to be able to consciously judge the reality of the situation.

For example, in the interview, Lynne discusses how she had set up reminders for Tom to remind him to get ready for lunch; something that he found difficult to do:

Lynne:

Well what I've done was I set it up so it was like on the appointment thing and then as soon as it beeped, I mean he'd be in a lesson at twenty-past twelve, so we'd still be sitting in the lesson and then his phone would beep to say that it was now time for him to get ready ... 'Well why do I have to get ready, no one else is getting ready?'

Joe:

Aha, right.

Lynne then goes on to say when these reminders were implemented, Tom was worried about being identified as different from the other children. This was not so much that he

had a piece of technology which they didn't but rather that he was getting ready for lunch earlier than the others:

Lynne:

He doesn't want to be seen as being different to everyone else but if we wait till ... say ... normally it's two minutes before lunch and we say, 'Right we'll finish now let's all go to lunch' cos, literally, the other kids will just get up, 'We're going to lunch!' Tom will need to go to the toilet and wash his hands. He washes his face and he then goes and finds his lunchbox and then he's late but that doesn't bother him.

Joe:

Right, interesting.

Lynne:

But it bothers him that he has to finish the lesson before the other students to get ready.

Lynne:

but I think it's Tuesdays and Thursdays where he's in a lesson and he has to be ready for lunch, so what I've suggested is one of the lessons is mine, which is fine ... the other lesson is the other teacher ... that all the students stop when Tom's phone bleeps. So everyone stops at twenty past twelve when Tom's phone goes ... Tom can then get himself ready and basically the other students can ... we can like finish the lesson and they can go and wash their hands and whatever, so that we're already then but we're

doing it at the same time as Tom. Because I think that was the issue; he had to stop the lesson and he thought he was missing out, that they were still doing something else. So that was what I suggested to Tom, which he agreed with but then the phones got taken away because of the internet issue and everything, so that's what we're going back to after the holiday. Whether he uses it in the holiday for this bed thing I don't know, I really don't know.

My initial interpretation of this extract before the work study group discussion was that this was an example of Lynne adopting an inclusive approach to the use of new technology. Just as a teacher might get all the classmates of a child with Down's Syndrome to use Makaton sign language, similarly here Lynne was adapting the whole classroom to fit the needs of an individual child. However, in the work study group discussion, colleagues read the observation and interview transcripts as suggesting a considerable degree of resistance to and negative feelings towards the app. They highlighted a number of sections from the second interview in particular, including the following extract from the start of the interview:

Lynne:

So yeah ... it was very ... I mean I spoke to Dad ... I spoke to Mum and Dad about what they would like on there but Tom is very anti-changing his routine.

Joe:

Right.

Lynne:

And I don't know whether he's going to use ... I mean, as soon as they couldn't have the internet anymore Tom didn't want the phone anyway!

Joe:

Yeah.

Lynne:

And it was like ... well there are other things we can do with it and whatever ... and I think ... I dunno, because he had that option ... if he hadn't had that option before he would probably be alright with it but because they had the internet and he used it all the time and now it's taken away, he's sort of anti- the phone if you know what I mean.

Joe:

He did seem a bit negative there certainly, yes.

Lynne:

I mean he wouldn't have it back. Because Patrick and Alan had theirs back for two weeks after the Internet was taken off but Tom wouldn't have his back.

Joe:

Does he think ... that's what he's upset about?

Lynne:

Yes.

Although this extract is focused on Tom's perceptions, later extracts do indicate a generally negative trend in Lynne's thinking at this stage in the implementation. For example, later in the interview Lynne discusses what she thinks could be improved about the app:

Joe:

What did you like, what did you think was good or potentially has worked well if anything?

Lynne:

No, I mean obviously the actual phones themselves have been a bit temperamental with ... it's more the fact that one minute they've got them and then, 'Oh no, we're taking them away' and also, I was speaking with Tracy (another member of the research team) and John yesterday and I said, 'I just ...she said ... there's a training session on the Wednesday after we get back after the holiday' and I said, 'Oh well, what's happening with me then?'

Joe:

Right.

Lynne:

and she said, ‘Oh haven’t you been invited?’ and I said, ‘Well, no one tells me.’

Joe:

They only just sorted it out yesterday.

Lynne:

But then she said, ‘Oh well what I’ll do is I’ll do that with them and then I’ll come over to you’ and I said, ‘No, I wanna be ... I feel as though I’m over here on my own and ...[said forcibly] Tracy does come over here but just her and me doing it, I’m not sharing with the other teachers if you know what I mean [obviously a strongly-felt issue for Lynne] and I just think ... I have felt a bit on my own over here trying to get everything done and not included in what’s going on at school. But that’s not your fault or anyone’s, it’s just I think ... it needs to be a whole school thing rather than me over here doing it on my own and, also, Patrick’s residential ... I mean the people that he’s with every evening need to be included in things.’

This extract also illustrates how the implementation of the app ties in with Lynne’s ongoing feelings of ‘being left out’, as well as Lynne’s significant frustration in relation to the app.

It may also be that Lynne is experiencing rivalrous feelings towards the technology. In particular, her existing envious feelings in respect of the greater attention that staff on the main site are, in her perception, receiving may have been stimulated by the introduction of a new object. In her internal world, the tool may be viewed as a new toy which rivalrous ‘siblings’ (i.e.

her colleagues) have been given greater access to than her. Lynne does in fact make reference to feelings of being left out in her interview responses on 8 occasions (one in the first interview, six in the second interview, and two in the fourth interview), and it is relevant to note that these were made exclusively in respect to questions about the app, not her feelings about working on a different site.

It think that this material from Lynne does serve to illuminate the potential for the use of a modified infant observation approach to the exploration of emotional aspects of professional practice. It demonstrates how countertransference, feelings in response to the observed situation, can tell us, when used judiciously, about the emotional state of the actors in the field. It also shows how such a tool needs to be used carefully, and demonstrates a) the potential for triangulation between sources that the use of both observation and interview material allows, as well as how the use of a work study group to review material can usefully help the researcher or research team to separate out strong identifications which belong to the researcher from the reality of the emotional field being considered.

Although it seems that Lynne was at times, particularly in the earlier stages of the implementation, beset by significant negative feelings, her positioning in relation to the app was more complex than that. On a number of occasions Lynne was indicating, either directly or indirectly, her belief that it could make a difference to the young people that she was working with. Source references from Lynne were coded to the data node 'Teacher indicates belief that the technology tool can promote autonomy' on 19 occasions (14 instances across the interviews, and five from the second observation).

Thus it is reasonable to conclude that at times, Lynne has a positive orientation towards the app. This can usefully be considered from Waddell's perspective on shifting states of minds. At times Lynne is subject to invasion by feelings of rivalry or intrusion due to the introduction of the app. On other occasions, as with Tom in the third observation, her anxieties related to the uncertainties involved in working with children with autism interfered with her ability to base her use of the technology on realistic thinking about the needs of the children.

Yet at other times, perhaps when she was less invaded by uncertainty, Lynne did see the potential for the technology to make a difference to the lives of the children she was working with and was able, in a Bionian sense, to come to 'know' the children. In other words, Lynne was able to engage in a state of intersubjective relatedness, whereby she could tolerate uncertainty and anxiety and utilize her experience of working with the children to decide on how the tool might be used. These instances were examples of productive uncertainty in action.

This pattern of shifting states of mind in relation to the app is one that repeats itself across the other cases in this study.

KATHY – LIVE COMPANY

Current Role and Career Background

Kathy started work as a qualified teacher in mainstream secondary schools in south east London. She then worked, for thirteen years altogether, in schools for children with emotional and behavioural difficulties, latterly in a borough-wide management position with responsibility for excluded and special educational needs children. Kathy then ‘came out of management’ to work at Randall school, where she has been for the last six years. Kathy is a form tutor as well as teaching art (her specialist area) and religious education across the school.

When asked, in the initial interview, why she decided to come and work specifically with children with autism, Kathy gives a bravura response:

Because for the last twelve, fourteen years I’d been working with the whole spectrum of special needs, both on the ‘shop floor’ and managing the organization of the same and I decided I didn’t want to be in management anymore cos my time was divided ... you couldn’t be in the classroom and manage but you were expected to be so ... the needs were there ... and I was brilliant with the kids, so I thought, what is the condition that makes me feel really de-skilled and that was autism, so I sought a job in that cos I thought, well I don’t want to be de-skilled in any area.

Here Kathy identifies disillusionment with the conflicts engendered by being in a management role as one factor in her decision to change roles. It is also evident that she saw

working with children with autism as something of a challenge. In this context, how should the declamation that ‘I was brilliant with the kids’ be considered? As a rationale, is it a somewhat unconventionally effusive, reflective analysis of her skills, or a defensive projection of invulnerability? Such uncertainty is a common thread throughout the ensuing discussion about Kathy, her thinking and her actions. There was also considerable uncertainty for me, during the analysis of the data, in making sense of what was going on for Kathy, and the review in work study group allowed a greater sense of understanding to slowly emerge.

Key Information Sources for Kathy

1st Interview 14 October 2009

1st Observation 25 November 2009

2nd Observation 19 March 2010

2nd Interview 24 March 2010

3rd Observation 18 May (1) 2010

4th Observation 18 May (2) 2010

Supplementary:

Observation Kathy’s Class and Jill (16 June 2010)

Interview with Jill (6 July 2010)

Approach to dealing with autism and conflicts with the school

Kathy was withdrawn from involvement in the app project directly after the third and fourth observations, and was not available for further interviews or observations. Material relevant to a consideration of Kathy and her work with the children in the context of using the app was derived from additional observations of Jill, a senior support worker who was regarded as holding a teacher equivalent role in the school, working with Kathy's form class, and from an interview with Jill.

It is also relevant to note that during the 2009/10 implementation year, as reported to me by Kathy herself, Kathy's mother had a serious illness and died a few weeks before the last observation.

Kathy's approach to working with children with autism can be typified as being aligned most closely to a social model of special educational needs. Eight interview source references were coded to the data node "Children with ASD are just normal" (three in the first interview, four in the second interview, and one in the final interview), which was used to categorize responses that indicate expressed views synonymous with a conceptualization of autism which stresses their inherent humanity and views them as having (at least partially) socially determined strengths and weaknesses, just like all children. This is exemplified for Kathy in the following extract from the first interview:

Joe:

[...] What would you say is your general approach to working with autism, how that fits in with the school's approach overall?

Kathy:

I'm not low arousal [chuckles] for some reason that seems to work. I'll adopt the strategies that I was advise to do and I don't do that in a hypocritical way, I can see how they work or why they work ... for instance the Brain Gym, it was suggested that I do that because after the children travel into school I believe they should be allowed some time running around in the playground for some of them an hour before they came. This is NOT the rule here, so the Brain Gym was introduced to me as an alternative to me allowing them to play and, fair enough, if my class is playing then other classes might want to play. So we did the Brain Gym and it was quite formal and I thought, this Brain Gym would be wonderful if we could have some nice loud music with it and that's worked. I'm not sure the inventor of Brain Gym wanted loud music with it but it's working and is certainly motivating the ones ... they are going like that [demonstrates movement] and they've got a rhythm to do it to so, yes I will follow the strategies and the laid-down rules that we have to work to but if I could find a way of making it more stimulating or interesting I'll go for it and I will be very straightforward with the students. I THINK THEY ARE PEOPLE WITH AUTISM, NOT AUTISTIC PEOPLE!
[said with significant emphasis]

Joe:

Tell me a bit more what that means, that difference?

Kathy:

When I find myself saying ‘He’ or ‘She’ is autistic, or that they’re autistic I get cross with myself because I think that it’s almost putting down ... there are people with autism and they have a condition, they are NOT autistic people. Cos saying they’re autistic people almost sets them as a race apart and they’re NOT a race apart; they are people who have emotions and feelings, the same as the rest of us, they just have this condition ... because I’ve got arthritis, I’m not ... ‘Oh that’s an arthritic!’, I’m Kathy WITH arthritis. Why can’t they be students WITH autism or adults WITH autism, not autistic people?

This extract also serves to illuminate some aspects of the conflict between Kathy’s and the school’s approach to working with children with autism. The school employs a modified TEACCH approach (University of North Carolina, n.d), part of which is the promotion of a low arousal environment. In the extract we see that although Kathy pays lip service to the school’s overall approach, it is clear that on this issue that she disagrees with it.

Her consideration of her charges as being ‘students with autism...not autistic people’ also reflects a wider conflict between Kathy’s sense that the school should be promoting the children’s autonomy and independence, and her perception that the school’s approach is too cautious and restrictive, i.e. that they see them as autistic people, not as people with a varied range of potential. It also mirrors to some extent wider conflicts between the social and medical models of disability in relation to special educational needs.

This conflict between wishing to promote autonomy and independence and concerns over the restrictions on capability resulting from autism is exemplified here in the conflict between Kathy and the school. It is, however, a conflict that is present as a tension in the thinking of all the teacher cases presented in the study. This conflict is also present within Kathy's own thinking, as can be seen from the following extract from the second interview, when I refer to the initial observation I did with Lynne's class at Further Education. Kathy refers to two of the children, Steve and Danny, at FE, with whom she is familiar.

Joe:

Right! I did do ... I did an observation again at FE ... I went out with them to the supermarket actually ... I did notice that they all ... when they got to the end of the road, they all kind of stopped and waited for the teacher or teaching assistant to come and cross over the road with them so I had a query in my mind at that time ... you know, with seventeen year-olds, do they actually need that?

Kathy:

Steve can do. You can go to the supermarket with him and he can cross the road and you can go to the supermarket and say, 'Get the week's shopping for the flat Steve' and he'd do it without you being anywhere near him and Danny is meant to be a 2-to-1 ... you have to be with him because he does panic and call the police but, equally, you can say, 'We need the week's shopping' and from memory he can do it independently but for the public safety you have got to be near him, given his size as well.

Joe:

Umm. A difficult balance to work out.

It's clear that Kathy is, inevitably, trying to work out the 'difficult balance' between promoting the children's autonomy and independence, and working within the realities presented by their restricted capabilities. Although she tends to come down more on the side of the former, rationally she recognizes the imperative for practice mandated by the latter.

It seems reasonable to propose that resolving these two contrasting positions in terms of deciding what to do when working with children with autism is a considerable source of uncertainty for Kathy and the other teachers in the study.

Mark

Kathy has one child, Mark, using the app, in her form class. Mark was born in 1996, making him 12/13 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 84, a VQ of 89, and a clinical psychiatric diagnosis on entry to the School of autism. He has a co-morbid diagnosis of Obsessive Compulsive Disorder (OCD).

Mark lives at home with his parents during the week and attends the school weekdays.

Classroom observation data, teacher interviews, and informal visits to the school form initial impressions of Mark who presents as a pleasant, polite, but very nervous child. He is very keen to please, and both classroom observation and reports from Kathy indicate that he is unfailingly polite to adults. On several occasions when I was in the school, Mark would come up to me and say hello, and there was a strong sense of his desire to receive adult attention.

In classroom observation he frequently has a noticeable forced smile, which tends to have a manic quality to it. Kathy discusses Mark's use of this smile, and of a high voice tone, as being in response to anxiety. Other adults in the school, including Jill and Donald, the school Educational Psychologist, also comment informally on Mark's sometimes extreme nervous states. However, Mark, particularly in Kathy's presence, also has a more lively aspect to his character. He has what could be described as a flair for theatricality and humour, and this is evident in a number of observations when Kathy is working with him.

Although there is significant discussion in the interview material about Mark's autism and the significance of the diagnosis, there is no mention of the co-morbid diagnosis of OCD. There is also no reference to it in the interview with Jill, nor in informal discussion with other staff members.

Kathy comments on his playground play, indicating that despite Mark's slight frame and overall nervous disposition, he likes to engage in quite rough play on the climbing frame with older and bigger children, although she notes that this type of play does not require any talking. His day-to-day relationships with other children in the school are generally positive and over the course of the 2009/10 year he develops a friendship with Philip, who was now in his form class having previously been in another class.

Academically, Kathy places him as equivalent to 'an early level five in a junior school', which implies that he is working just below his age-expected level.

Kathy – Live Company?

In the four classroom observations, Kathy comes across as an ebullient enthusiastic teacher, who injects a lot of energy into her classes, which the children on the surface appear to respond well to. There is, as well, throughout the observations, an ongoing interpretative tension between events that could be considered alternatively as examples of lively engagement with the children or which might be regarded by some as examples of narcissistic or even close to uncomfortable crossing of personal and professional boundaries. Several examples of attempts to draw me out of a non-participant observer position, and the countertransference responses that this invoked in me, were useful in helping to make sense of these events.

In the first observation, Kathy unexpectedly and jarringly reveals personal information about her son:

I go in to class at 8.50 am. There are no children there, just Kathy, Diane and two other teaching assistants/practitioners – Lorraine and Kay. [Diane is Mark's key worker].

Kathy introduces me to Diane – jokingly, 'This is Joe. He's the [app] man that everyone moans about.'

Everyone says hello and seems very friendly. Kathy shows me 'Amos', her stimulus object which is a toy baby monkey that moves and gurgles to a sequence. It is very cute.

Almost out of nowhere, Kathy tells me excitedly that 'my son's got a girlfriend', and goes on to tell me how his father is very pleased with this.

In my initial annotation notes to the writing up of the observation I note:

I feel a bit taken aback by all this – I’m not clear why Kathy is sharing what could be regarded as quite an intimate matter with me – someone she hardly knows. I feel confused/uncomfortable.

This is typical of a number of instances during the observations where I also make a note of having similar feelings.

Agency and Autonomy

At the time of the first interview, Kathy had been working with Mark for six weeks. She has a strong sense that in the previous years, Mark has had too much of a reliance on various supportive aids, like an angled support for use at his desk – ‘a half tent affair that was meant to stop him becoming anxious’ – which were designed, in the eyes of previous teachers and other colleagues at the school, to reduce Mark’s anxiety. Kathy’s feeling seems to be that this level of support with Mark is unnecessary and that it is reducing his independence, as in this extract from the initial interview:

Kathy:

I haven’t offered it him. He brought it in and he asked for it ... he can just pick it up and he hasn’t asked for it at all this term. His mother is very, very caring and very, very anxious and she’s mentioned that he probably needs it but he hasn’t asked for it. I deliberately didn’t mention it to him, but I said, ‘Don’t you want your work station?’ ...[Mark replied] ‘Oh no!’

Joe:

So was that because you thought he didn't ... he maybe didn't need to have it?

Kathy:

I didn't think either way. I just thought if he wants it he'll just say.

Kathy is clearly conscious of the difference between her approach and that of the school typically, as can be seen in this extract from later in the first interview, when Kathy is discussing what her expectations are for Mark:

Kathy:

I think we have to be very careful of over-nurturing. Particularly when we're at a specialist school like this. It is great...I say I feel privileged that I have the support I do to teach the different areas of the curriculum I do but I think that is a pitfall, that where you've got people who have worked with the same students for many, many years they are doing TOO much for them.

During the 2009/10 year, Kathy implements her stated policy of reducing Mark's reliance on aids in the classroom. This is evident in first and second classroom observations, when Kathy makes several direct references to Mark about the aids and how he is getting on fine without them. Mark apparently is getting on well under this regime, at least according to reports by Kathy, up until early May when, one week before the third and fourth observations (and a couple of weeks after Kathy's bereavement), there is an incident in which Mark 'acts out' very

seriously. I am not, until the end of the academic year, given any information about specifically what happened in this incident. It seems clearly, though, to have had a significant effect on the school's approach to working with Mark. During the third observation it becomes clear that a review meeting was held, which involved the senior school management and Mark's parents. As a result of this meeting, specific guidance was issued to Kathy about reintroducing some of the aids that Mark had previously been using. It seems likely that concerns by the school management about Kathy's approach to working with Mark had been brewing for some time, and that the incident provoked an exertion of the school's authority.

Kathy's approach to the use of classroom aids needs to be considered in the context of her overall approach to working with Mark, which in line with her general approach to working with the class, was characterized by lively interactions.

These interactions serve to exemplify the interpretative tension created by the observational material from this case, that is to say was Kathy engaging in lively stimulating interaction which promoted the development of autonomy by her students or was she perhaps uncomfortably close to crossing boundaries and provoking their anxiety? At times the material afforded itself more closely to the former, as in the following extract from the third observation:

Kathy introduced the children to an English worksheet. It has several pages. The first is on first letters and has the alphabet in sequence with a space, as in 'A _____ B _____', to write a word. This is repeated underneath with upper and lowercase together, as in 'Aa _____ Bb _____'. Kathy is using the sheet for the children to think of words beginning with each letter and write them down. She is working more directly with Julian

but frequently interjects/directs to Mark and the groups as a whole. Mark has his triangular block and a grip on his pencil. He is very smiley but seems engaged with the task, looking enthusiastically at the worksheet. Kathy starts them off by asking to different children which would come first in the dictionary – to Julian, ‘which will come first, Inky Snake or Bee?’, to which children chorus ‘B’.

Kathy then asks the children to suggest words which they do for the different letters and she explains how to fill it in. She asks Mark, in reference to the bottom section if they write each letter of the word twice. Mark shakes his head vigorously and says, ‘Noooo’. Kathy then goes on to introduce the following pages. The next one is on nouns, with a picture and first letters of some of the objects in the picture. Kathy asks to the group generally, ‘is black a naming word?’, ‘Noooo’, ‘is cat a naming word?’, ‘Yes’. Mark is nodding enthusiastically. Throughout this session, Kathy is interjecting, cajoling, suggesting – her energy seems to motivate and sustain the children’s engagement.

The children now start working on the sheet. There is quiet and some fairly industrious working for a minute or so. Kathy is sitting now looking at Andy’s work. Kathy reads from the sheet, explaining to the group, ‘Cover the snakes to make them fit the adjectives? Can you read the words on there?....’ [there is an exaggerated pause]...’Mark!’

Mark obliges and reads, ‘long, red, yellow, spotty, furry, sad’. Kathy says, ‘Now do it as though you were on stage’, throwing her hand out theatrically and starting him off in a flourishing tone,

Mark says, 'LONG?'

Mark gets very animated, and goes on to say, 'long, red, yellow?' in a kind of quasi-American affected tone that does sound like an actor expositing on the stage. He does a flourish with his arm to accompany this. Kathy laughs and says, 'Well done.'

Kathy, pointing to the next page, says, 'the next page is more difficult? You've got some sentences to finish? So adjectives...snake hisses, Julian?' Julian looks a bit unsure and Kathy says, 'a word to describe the snake'. Julian gives a response. Kathy then asks some more questions on describing words to the children, and then asks specifically to Mark, 'another one Mark?' Mark says, slightly hesitantly, 'Blue'... Kathy repeats, sounding pleased, 'Blue? Yeah? What about a dog, what could a dog be Julian?' Julian says, 'Yellow'. Kathy says, 'Yeah? A car..words to describe a car, Mark?' Mark hesitates, saying, 'Errrr...' and then comes up, with sounding pleased, 'Striped!' Kathy says, in agreement, 'a striped car? I'd like a striped car.' Julian then says, 'a polka dot car', Kathy echoes in a surprised and enthusiastic tone, 'a polka dot car!....who knows what polka dot means?....it means spotty doesn't it? What a lovely [emphasis] word. Well done!' The children then discuss briefly about sunsets – 'yellow sunsets'? and Kathy says, in a pleased tone, that she didn't know her 'class were so clever' [...]

The final sheet is on the past tense. Kathy introduces this and says, 'Who can give me something in the past tense?' There is definite pause for a moment or two – none of the children react. Phillip is thinking quite hard – I have the sense that this is a challenging question for them. Then Phillip says, 'David Tennant leapt' [this is a reference to the

actor playing the television character Dr Who at the time]. Kathy says, 'Dr Who...yeah...that has happened'. There is some more back and forth questioning on the past tense and then Kathy asks Mark if he can think of anything. Mark looks a bit blank, so Kathy prompts with, 'how about Mark used have a high voice?' Mark says, 'Yeah', quite agreeably and Kathy continues, 'but that's past'. Mark nods and seems very happy to agree. Kathy says, 'What else did you used to have?' Mark thinks for a second, says, 'Ur...ur...', and then has a light-bulb on look and says, 'used to have an insane sense of humour'. Kathy and Mark laugh together and Kathy says, 'you've still got that.'

This lively interaction shows Kathy modulating her responses effectively in reaction to the children and using her enthusiasm and energy to bring them with her. She also fosters and encourages Mark's expressive use of language and his theatrical flair, and my field notes indicate that this feels to me like a genuine interaction from Mark. His 'rictus' smile is absent and there is an easier flow to his facial and bodily movements than on other occasions, when he appears tense and nervous.

In the moment, when Mark theatrically says 'long, red, yellow', he doesn't seem like a boy with autism, who is beset by chronic anxiety. He doesn't seem like a child with a co-morbid diagnosis of OCD. Yet he is as well all those things, but 'in the moment' it does seem reasonable to suggest that Kathy has used her energy, as well as her belief that Mark is not defined by his labels and his anxious state, to draw him into a more genuine and creative relational state. There are echoes of Anne Alvarez's adaptation of Trevarthen's phrase 'Live Company'. Alvarez (1992), writing about the use of psychoanalytic psychotherapy with autistic, borderline and

abused children, suggests that such children often get stuck in repetitive behavioural patterns, which although originally serving a necessary defensive function, are now just relics that prevent them reaching their potential. Alvarez proposes that the therapist needs to consider whether the child needs to be this way to deal with their own anxiety or whether, if it is just pattern behaviour, they could be challenged or enticed to consider more mindful types of communication. Alvarez's position seems to be that we should not accept autism as just 'difference', but that we should be active agents in reaching across the divide and using our 'live' mind to foster the reclamation of the child's mind, and by implication their agency and autonomy. With Kathy too, it seems reasonable to propose that in some instances at least she uses her live mind to cross the boundary to Mark and draw him into a more creative and alive state. Although her use of this strategy is to a significant degree based on implicit rather than explicit thinking, the end result is largely the same.

On other occasions, Kathy's interaction with the class and with Mark was, in my perception, less sure footed.. In fact, this change in tone is seen almost immediately in the next part of the third observation:

Kathy then moves on to talk about the 'future tense, which you two [Phillip and Mark] should all be very [Emphasis] good at that as it's all about space....if I cooked yesterday what do I say?...'. The children respond, 'I cooked...', Kathy says, 'if I cook tomorrow what do I say?...', Kathy and children chorus together, 'I will...I will go to a charity shop tomorrow.' There is then a back and forth discussion for a minute or so on the future tense with Kathy asking individual children what they will do tomorrow.

Kathy asks Mark, who looks a bit blank, and Kathy emphasizes, 'Will will will will...', and Mark says, sounding rather pleased with himself, 'I will go to HMV tomorrow and buy a Dr. Who DVD.' Kathy flips her head and rolls her eyes and says, 'Oh...Dr Who...', in a mock resigned voice.

There is more discussion on 'I will' between Kathy, and the adults. Kathy says, 'I will go to work tomorrow', and the adults laugh.

After a few moments, Kathy says, in a more conversational tone to Phillip, 'will you go to church on Sunday?' Phillip shakes his head and Kathy says, 'are you going off church then?', in a slightly jokey tone. Phillip puts his head down on the desk and mumbles something. Kathy, exaggeratedly, does the same, and says in a loud voice, 'Phillip, Phillip...I can't hear you.' Phillip looks a bit irritated but springs up again and says, 'I usually go on Saturday.' Kathy asks, 'What happens there on Saturday?' Phillip says, 'I get bored.' Kathy says, 'I'm [emphasis] going to church on Saturday next term. Who with...do you know anyone else in the school who goes to church all day Saturday?' Mark says, 'Steven', in rather strangled tone. The children's expressions at this indicate recognition. Kathy says that she saw Steven's father yesterday and said, 'Can I come to your church and see what happens? And that's what I'm doing...cos Steven knows more about the bible than I do'.

Phillip says, 'and he always says that Jesus's birthday wasn't on Christmas day, it was on another day'. Kathy says, 'it wasn't' [emphasis] but then says to Phillip, 'if I wanted...you know you're going to church a bit...if I was your mum and really really

really wanted you to go to church... and you go, [with dramatic emphasis] I DON'T WANT TO GO...I could say, Phillip, you're really going to like the church service...when you get there they're going to show you lots of Dr. Who DVDs. You'd go wouldn't you?' Phillip looks pleased. Kathy continues, 'and Steven's church is a bit like that...you know my reggae music'. Phillip says, 'Uh...huh'. Kathy says, 'Well that's mostly made by black people. So when you go to Steven's church instead of all sitting there quietly, you go [in a loud voice] Ah, yeah, Praise the Lord [claps her hands]...and they'll all be dancing around and it'll be really good..and that's why he likes going to church because it's different...white people and English people go too but it is a lot of fun...', and Kathy jigs her body as though they were dancing at the church. Kathy asks Mark, 'Do you ever go to church?' ...he looks a bit blank. Kathy prompts with, 'weddings or...', and Mark says, 'yeah...weddings'...Kathy says, 'yeah...though so that's about the future'.

Kathy then says, 'OK I want to see you all working now so go!...no rushing...best work as it's all things we have done before'. The atmosphere breaks, and things become more relaxed after the intensity of the previous dialogue sequence. Mark jumps up and looks at his worksheet [...]

At the time of the observation, this sequence on church attendance made me feel rather uncomfortable. It was in professional terms unorthodox or unconventional. However, it was arguable, particularly as part of Kathy's role in the school is to teach religious education, that she was quite reasonably taking an opportunity to explore this aspect of the curriculum with the children.

However, when this material was reviewed in the work study group, there was agreement from professional colleagues that there had been a veering into unbounded territory. My discomfort during the observation, and the discomfort of colleagues reviewing the material in work study was suggestive of a countertransference response to an underlying narcissistic quality to Kathy's engagement, in which she seemed to have lost a clear connection to the children. From a Bionian perspective, her ability to tolerate uncertainty and allow knowledge about them to emerge from intersubjective relatedness could be regarded as being impaired by a flight into defensive mechanisms. It is interesting to note that Mark returns to an unusual voice tone, and that the level of engagement by both him and Phillip seems to be qualitatively different in this section of the observation.

Methodological considerations on the role of the work study group

The work study group highlighted the usefulness of my countertransference response in resolving the interpretative tension inherent in this part of the observation. As can be seen from the material presented, I make a number of references to how Kathy's interactions with the children at times evokes differing feelings, sometimes very uncomfortable ones, in me.

The fact that I felt very uncomfortable at times did seem to be a useful signal, suggesting that the children may also have been feeling uncomfortable, a conclusion which is supported by the observational write up. A close reading does suggest that Phillip is very uncomfortable and that Mark has no idea what Kathy was driving at, and is finding the situation anxiety-provoking. It may be that due to my prior history as a class teacher, I had something of a natural tendency to side with the teacher and a concomitant reluctance to make 'negative' judgements, and that this

was affecting my ability to properly make use of the available material. As in a number of other instances, taking the material to a work study group allowed me to see past these blockages.

Again, the material from Kathy's case does, I propose, serve to illuminate how the use of a modified infant observation approach to considering professional practice can be effective in uncovering the emotional interactions at play between teacher and child in the classroom.

Varying States of Mind

Kathy's general orientation towards technology in general in the first interview was characterized by a mixture of frustration and what seemed to be stronger feelings of fear and even anger. Her attitude to the app, at times, was in marked contrast to this.

In the first interview, in response to a question about what challenges she experienced working with children with autism, Kathy gave an answer focused on her expectations for the app:

Joe:

Okay. There must be ... maybe 'challenge' is the wrong word but just the kind of issues that come up ... that you have with ANY class, what are the things that ...?

Kathy:

I'm going to sound conceited but as I say, I just think that visual images, which is one of the reasons why I think the PHONE WILL WORK because it's not communicating in writing or speech. It's largely going to be ... it does have those features on it but the first thing we're going to put on there is pictures to remind them, isn't it? Because that's the

way I operate anyway, being an artist ... I've never found it that difficult ... I've had to learn a lot about autism and about sequences and about the communicating and the ways to speak but as I say the visual communication thing, I just thought, 'I can do this, this is really excellent!' and if you look at recorded incidents in any room where I've been teaching there have been very few. I don't know whether I'm lucky or it's that particular talent for producing visual stuff works and I think that's why I think the phones will probably work.

Joe:

Great.

Kathy:

Because it's not lists of writing which is difficult. It's not someone talking and you're not understanding their expression. The other thing that these kids relate to, along with all their peers in the outside world, is technological equipment: DS's, computers, TVs, Films like Disney and look at Thomas The Tank Engine ... if you are thinking ... Thomas in the story goes along lines doesn't he? ... sequential pictures, so yeah I think the phone's a good vehicle.

At this stage in the implementation, Kathy had attended two two-hour training sessions on the use of the app, but had not yet started using it regularly with Mark. She was correct in identifying the use of images, in the personal trainer function, as an important part of app. There is also a recognition, somewhat contrasting to her earlier responses in

the first interview on technology in general, of the importance of technology in the lives of young people. However, there is also a somewhat manic and brittle tone to what Kathy says. The question was about challenges, yet her response ignores this and she focuses on her flair with the use of visual images, and in what seems to be a partial non-sequiter exclaims that there have been very few recorded incidents in her classroom. Her enthusiasm for the app, given her low level of exposure to it at this stage, also seems perhaps overblown.

This perhaps overblown enthusiasm is also present in the second interview, four months later in March 2010, when Kathy and Mark are still not quite fully engaged in using the app, partly due to a technical issue that had led to the smartphones being withdrawn from the children for a number of weeks at the start of the spring term:

Joe:

So what do you think...what's his feeling about it; do you have a sense of what ... how he's ... does he like it, is he happy to have it?

Kathy:

Oh he'll be happy to have it.

Joe:

Yes.

Kathy:

Not just to please us ... cos he wants to please, that is his agenda in life; he wants everyone to be happy. But, no, he will actually like it and he will find it useful unlike his laptop computer, which he doesn't like.

Joe:

Why doesn't he like it?

Kathy:

He can't see the point of it, he can write perfectly well. It's boring ... can't access the internet on it ...

Joe:

This is the one he's got in school?

Kathy:

Yeah.

Joe:

Ah!

Kathy:

So it's just for Quirk training really [a computer training course that Mark was attending] and, as I say, his writing is probably a year below what it would be if he was in

mainstream, so I don't think there are any issues there and it's become a chore! So, no, you know, you have to remind him to get that out ... he comes in with so many aids.

When he first came here he had his tent, like this portable workstation; his wedgies; his laptop ... you know, comes in over-burdened.

Joe:

Yeah, I was going to say.

Kathy:

So something you can just put in your pocket, it's going to be brilliant!

Again, Kathy's expressed confidence in the app is somewhat surprising, particularly given the significant technical problems involved in the implementation up this point, and Kathy's self-confessed lack of engagement with the technology. Mark's engagement with the app also seemed, from my interactions with him, to be much more uncertain at that point than Kathy suggests. In the second observation, several days before this interview, I had shown Mark how to use various aspects of the app during the observation, and his orientation towards the phone had been more one of suspicion and uncertainty than enthusiasm.

Kathy's somewhat counter-intuitive expressed enthusiasm for the app seems to be linked in her mind to her conflict with the school over how to work with Mark. The app is not considered as another classroom aid, but as something that is going to be 'brilliant'. Yet there does not seem to

be any clear rational evidence for Kathy to base such a conclusion on at this point. It may be that because the app has been introduced by an agency outside of the school that Kathy positions it differently from interventions for Mark introduced by the school itself. In Kleinian terms we could consider that Kathy may be engaging in splitting, projecting negatively on to the school aids, based on its association in her mind with a harsh judgmental internal object (the school management), and simultaneously projecting positively on to the app. This projection, however, seems to be based on magical thinking (Klein 1998[1923]) and could be regarded as having a brittle omnipotent quality to it. This new technology will be infallible and achieve miracles for Mark. When Kathy is in such a state of mind, she is not able to enter in to live contact with Mark, and not able to use uncertainty productively to help him in his development.

At other times, however, particularly in the third observation in May, Kathy's state of mind in relation to the app seems to be more realistic. In the following extract from this observation, Kathy has managed to set up some personal trainer interventions on the app for Mark and shows them to him during the class:

Kathy now comes back in and now asks Mark to go and get his phone. She says, as he goes to his tray, 'Mark...don't panic....[gently] no rush'. She discusses with him how he is getting on with it. Kathy says to him, 'you know how you keep forgetting it in your tray?' Mark turns his head and looks surprised, and says, in a questioning tone, 'Do I?' Kathy nods and smiles and says that she thinks he does but that, 'there's nothing wrong with that...it's normal'. Mark says, sounding surprised, 'Really?' and Kathy says, 'Yeah [...]'. Kathy talks to Mark about what is set up on the phone for him and that it now has a

reminder – ‘it’s going to make noises to make you pay attention....you’re not the only one, Jeremy’s the same , keeps forgetting it and how useful it can be.’ Kathy carries on explaining how the reminder will work and that one of the interventions on it will be ‘Don’t Panic’. Mark echoes, ‘Don’t Panic’ in recognition when Kathy says this. Kathy says, ‘you know last week we discussed ...you wanted May Day, May Day, May Day, and then Don’t Panic – Just Stop and Ask – well that’s going on there’. Mark nods and says, ‘Yeah’, with a tone of recognition.

I observe that Kathy speaks in a measured calm tone throughout this session with Mark. She gives Mark her full attention – she looks directly at him and leans slightly forward in her chair. He also for much of the time looks very directly back at her. Mark says, ‘Yeah....yeah...’ in a slightly stressed tone in response to what Kathy is saying – again it is hard to gauge his level of actual engagement.

Kathy then goes on to say that whereas Kevin has the phone out all the time as for him it’s ‘fashionable’, for Mark it’s different– ‘you’re more interested in this guy than a fashionable phone’.

I then observe Mark starting the app and navigating the software. He uses the stylus, little a bit gingerly but his general demeanour with navigating the smartphone seems fairly fluent. Whilst he is navigating the phone I observe that he puts his hand behind his head, almost as though scratching to think what to do next. He also at one point, when Kathy is talking to him, gently traces the air near his face with the stylus.

Kathy then refers to the incident – ‘remember Friday when you weren’t doing what you were supposed to be doing?’ Mark says, sounding confused and unsure, ‘I was confused.’ Kathy says, quite confidently, ‘you were confused because you’d been caught I think...you knew exactly what you’d done...it was something you’d done before...it wasn’t a new thing’. Mark nods, he seems quite calm, and says, ‘I saw someone else doing it as well.’ Kathy says, ‘but the point was that you didn’t know what to do with that confusion, did you?...and that’s what the phone is going to help you with...it could be really useful in helping you when you get upset’. Then, by way of analogy, Kathy tells Mark that sometimes she gets confused and gives an example from last week when Darnelle made some comments in her planning book. Kathy says, ‘I was cross...I wanted to cry...and I wanted to go home’. Mark nods and says, ‘Yeah’. Kathy says, ‘and I didn’t have a phone to say, Kathy, Don’t Panic...you have...and we all feel like that’.

In my field notes I wrote that Kathy seemed here to be much more in contact with Mark during this exchange. I also noted that I felt much more relaxed during this exchange when compared to the significant anxiety and confusion even I had felt at other times when observing Kathy. When reviewing the audio and the transcript, there also seemed to be a more realistic evaluation of the role of the technology, now based on actual experience of using it. In Bionian terms, we could say that she has managed to stay with the uncertainty and maintain a greater degree of intersubjective contact, allowing her to ‘know’ more about what is really going on for Mark, in other words it is an instance of productive uncertainty in play. Thus, the ‘Don’t Panic’ intervention that Kathy has implemented on the app in this instance seems at the very least potentially attuned to his needs. My countertransference response to the observation, i.e. my

feeling of calmness in contrast to my emotional state in other observations, also supports the contention that Kathy here handles the issue of the ‘incident’ with a careful attunement to Mark’s emotional state.

The app still plays a role in her thinking about Mark, and although it is certainly not clear at this stage whether app really can make a difference to Mark, his functional engagement with it in this observation do at least suggest that it is a possibility.

Tolerating Uncertainty – the need for containment by the school

Shortly after the third and fourth observations, Kathy went on sick leave and was simultaneously removed by the school from the project. The incident with Mark, happening in the context of Kathy’s recent bereavement, seems to have precipitated a change for the school, Kathy and Mark himself. Although I discussed Kathy’s abrupt withdrawal from the project with Donald, the school’s educational psychologist and lead for the project, no explanation for the change was forthcoming, nor indeed did I ever find out what actually happened in the incident.

Thinking about how to work best with Mark engendered considerable tension for both Kathy and the school corporately. This tension was positioned around two contrasting positions. On the one hand, Kathy felt that the use of support aids reflected a broader ‘nannying’ attitude to Mark, which hampered his independence and was limiting his development. Kathy adopted a less structured, more energetic approach to working with Mark, which clearly at times stimulated the creative and expressive aspects of his character. On the other hand, the school seemed to have felt that the freer, less structured approach taken by Kathy, exemplified through the removal of support aids, was increasing Mark’s anxiety levels. Towards the end of the 2009/10 year, the

children 'moved up' to their 2010/11 academic year classes and Mark moved to Penny's class. I undertook an observation in July with Penny in which I observed her working with Mark:

Philip moves quickly to his place but Mark goes more measuredly to his tray, and gets his desk support and his image based paper day planner. He seems calm (calmer actually than any of the previous observations). I note his keyring of reminder phrases sticking out of his front pocket.

The protruding keyring flags the return of the classroom aids and on this occasion Mark is noticeably calmer in the much more structured and 'low arousal' environment of Penny's class. One also has to question, however, whether Mark also lost something when the break with Kathy occurred.

Review of the material from the third observation in the work study group was helpful in moving towards a conclusion about Kathy's work with Mark. Colleagues confirmed my sense that Kathy could be perceived as coming uncomfortably close to personal and professional boundaries, and that she could be regarded as being on occasion narcissistic and beset by internal anxieties that reduced her ability to be in regulated emotional contact with her students. Their response to the written transcripts was in line with my sense of anxiety both during the observations and when reviewing the material later. Yet there was also recognition that she was the victim of quite powerful forces from the corporate school body, forces that could be considered as repressive. Given the structural power imbalances that individual teachers face when confronting whole school approaches, it is perhaps not surprising that these forces stimulated defensive reactions in Kathy, particularly in the context of the illness and death of one of her parents during this period.

It was also felt important to recognize that Kathy could be thought of as having crossed boundaries that needed crossing when working with Mark and his classmates. Kathy had an explicit sense of the uncovered potential of her students that was not wholly defined or restricted by their autism diagnosis, which meant that they could be more independent in their current and future lives. This sense of developing independence may have been interwoven in Kathy's thinking with the fostering, particularly for Mark, of a sort of creative social communication exemplified in their joint engagement in theatrical flourishes. Kathy was also likely to have experienced considerable uncertainty about how to work with Mark, even if this was for the most part in the collected material covered under an omnipotent façade. In particular, the tension between Kathy's and the school's positions in respect of Mark must have led Kathy, at least on an unconscious level, to entertain doubts as to whether she was doing the right thing with him. Kathy's wild, unbounded energy may have at times been narcissistic and manic, but this may have been a reaction to the considerable external forces brought to bear on her. At the same time, this exertion of energy by Kathy, when she was in a more robust state of mind and was able to maintain a regulated emotional connection with Mark, served to create some sort of live connection with Mark, one which was at least partly based on her intersubjective relationship with him and which was not constrained by the expectations associated with his diagnosis. This connection did, at times, serve his development. It was this that he lost when the connection with Kathy was severed.

This pattern of manic energy and live connection can also be identified in Kathy's positioning towards the app. In the second interview, Kathy's reaction to the app was considered to be an example of idealization or magical thinking. There is undoubtedly an element of truth to this, but

it is probably not the whole story. Kathy may have thought that engaging children with autism with this new technology was a way of fostering their autonomy and independence. Thus it wasn't just that Kathy saw the app as something outside of the school's corporate structures, but that it actively tied in with her explicit and implicit desires to place greater stress on fostering the children's independence. This may be a more nuanced explanation for her somewhat idealized view of the app earlier in the project. Of course, much of her engagement with the app was still likely to have been driven by this manic energy. Thinking about the app meant thinking about the ongoing tension between her position and the school's in relation to working with Mark, and would have tended to stimulate the repressed but most likely ever-present uncertainties as to whether she was in fact doing the right thing with him. Her flight at times into idealization and a kind of manic, magical thinking can be understood in this context. Putting this another way, Kath's ability to tolerate uncertainty, and to work through her engagement with Mark to know productively what his real needs were, was in part dependent on the function of the school in containing her anxieties and uncertainties. Bion's use of the term containment (1985) in early development suggests that the unmanageable projections received by the mother from the infant are re-processed and fed back to the infant in a way that the infant can now think the thoughts that were previously unmanageable. This requires the mother to be in a state of reverie, an emotional state that requires considerable reserves of psychic energy. In order to achieve this, Bion (and Klein) suggest that the mother needs to be contained herself, by her husband or other adults around her, to be able to in a sense re-project the projections of the infant and have these re-processed and fed back to her in a manageable form. In simple terms, this correlates with the common sense notion that the new mothers should be told they are doing a great job. By

extension to professional practice, the teacher, in order to fulfil their role of containment, and thus have the possibility of tolerating uncertainty to engage in a true intersubjective manner with the children they work with (i.e. productive uncertainty), also needs the containing function of the school, of their colleagues and managers.

JOHN – THE COGNITIVE PATRICIAN?

Current Role and Career Background

John did a degree in biology in the UK and then went to Australia to do research on zoology. On returning to the UK in the early 1990s, he trained as a teacher and then worked as a science teacher in secondary schools, but also at times as a teacher in primary schools. John initially came to Randall school on a short term supply contract and at that stage had no specific experience of special educational needs nor of autism. John has now been teaching at the school for six years. John seems to feel that there is a good fit between him and the school, as indicated in this extract from the first interview with him:

I've been teaching here six years and when I came here it was with NO special educational needs background at all. But I came as a Supply teacher ... and I just said, 'Throw away the learnt and be prepared to come into an SEN school and I came here a couple of weeks after I said that and I've been here six years now and fitted in reasonably well I think.'

Later on in this interview, John reports his motivation for wanting to come and work with children with special needs as being based on a desire to contribute to society:

[...] I don't know why I had a thinking that I'd quite like to do it? Possibly because I've got quite a lot of belief in God and things like that and I want to be of service to the community and not just obtaining my financial remuneration, so I suppose that's what really motivates me ... of the idea of helping.

John's main role in the school is to teach science and maths across the year groups. He does not have a specific form class for which he is responsible. John was not originally scheduled to be involved as a teacher in the implementation of the app during the 2009/10 exercise. Another teacher, Mitzi, originally started working on the project with Jeremy (the focus child using the app) in the autumn of 2009. Mitzi was Jeremy's form teacher. Mitzi's motivation to be involved in the project was, however, very low, and little progress was made with Jeremy's use of the app. Mitzi then left the school to take up another post towards the end of the autumn term, and John was then identified by the school, partly due to his technical skills, as an appropriate teacher to take over the role of working with Jeremy on the use of the app from January 2010. It is relevant to note that John did not take on the role of form teacher, and at least in the initial stages of his involvement, his main contact with Jeremy was for a few science sessions each week. However, as his involvement in the project and his work with Jeremy developed, John spent an increasing amount of time working with Jeremy.

Key Information Sources for John

Interview and observations were undertaken with John as follows:

1st Interview 15 February 2010

1st Observation 4 March 2010

2nd Observation 25 March 2010

2nd Interview 26 March 2010

3rd Observation 21 May 2010

3rd Interview 21 May 2010

4th Observation 25 June 2010

4th Interview 25 June 2010

John's Positioning in the School

In the initial interviews and observations, John comes across as a committed, but often quite anxious teacher. His approach to working with the children has something of an 'academic' air to it, and he often focuses on concepts, often thinking quite hard about how to get these across to the children, although not always with success. His control of the classroom is variable.

Sometimes he projects his presence and authority, but at other times there is much less of a sense of authority and on several occasions the children seemed restless and somewhat unbounded with him. However, at these times John acts without rancour, and there is a sense of affection between the children and John, even when they are not always behaving very well. This sense of affection is mirrored in John's positioning within the staff group. One of my colleagues on the general project team, who spent a significant amount of time with all the teachers involved with the app, commented in early 2010, to the effect that John was very much 'held' by the school.

My own informal and classroom observations did also indicate that John was felt by the school to be a valued member of the team. John did, in fact, very much 'fit in' with the school.

Jeremy

John worked with one child, Jeremy, who was using app. Jeremy was born in 1995, making him 14/15 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 74, a VQ of 63, and a clinical psychiatric diagnosis on entry to the school of autism. He had no other co-morbid factors.

Jeremy lives at home with his parents during the week and attends the school on weekdays.

Initial impressions of Jeremy in the school environment are of a very anxious child, who finds it difficult to deal with new situations and tends to be limited in his use of language, particularly with people with whom he is unfamiliar. Teacher reports indicate, based on parental reports, that school behaviour contrasts to that in his home environment, where he is relaxed most of the time. When he is anxious he displays a significant amount of what can be regarded as typically autistic traits, particularly repetitive behaviours and routines, and echolalia, etc. Echolalia and repetitive pacing up and down were seen on a number of occasions during classroom observations. Teacher reports also indicate that Jeremy finds it difficult to read other peoples emotions and gets worried that people around him are unhappy

Jeremy enjoys using technology, receiving time-out on the computer as a reward for positive behaviour. He requires lots of prompting and guidance at school and in his daily life; enacting plans or actions required for the task in class only when he is verbally prompted by his teacher or when he sees others in his peer group beginning the target behaviour.

Jeremy has a keyworker teaching assistant, Jean, who works with him for most lessons. Jeremy seems to have a relatively strong and secure attachment to her. Another assistant, Dawn, who is Jean's sister, also works with Jeremy for some lessons, and again Jeremy has a positive attachment to her.

John categorizes Jeremy's ability in maths as a high level two (the typical level expected for a child aged seven) and in science as a low level two (below the typical level expected for a child aged seven). John reported that as he does not teach Jeremy for English he is unsure about his exact ability level. However, he felt that he was able to decode well, but that often he did not properly comprehend what he had read. In terms of social interaction, John reports that Jeremy is able to ask people things, but that often he does not even when he needs help. In observations, I do see Jeremy asking for help on a number of occasions. However, this seems to the limit of his typical interactions with adults. When asked about his play interactions with other children, John indicates that he doesn't think that Jeremy engages in much play with other children due to anxiety, but he thinks that if Jeremy has got someone that we really knows well then he can play and interact with him. John also maintains a strong sense of hopefulness about Jeremy, which is evident throughout all the interviews.

The Academic Patrician? The place of theoretical knowledge

John, as with the other teachers in the study, does not have any significant prior education or training in working with children with autism. This resonates with what we know from the literature about the low level of input on special educational needs in pre-service teacher education in UK. However, John showed evidence, in contract to the other teachers, of thinking

explicitly and sometimes in significant detail about theoretical aspects of autism. John's orientation towards theoretical knowledge can be seen quite strikingly in this extract from the second interview:

Joe:

[...] social skills, what would you say that means for children with autism?

John:

Oh I see, anything that helps them communicate with others, either understanding what someone else says or being understood themselves, I would say ... it's that situation and the thing is, is that if you can take something wrongly in what's said then an autistic person is quite likely to do that and they find it hard to bring their words to their minds ... very often they've got actually a period of time that they require to process the information and if there's just one piece of information then they're given the time to process that and they're fine but if there's a lot of things going on all at once then it's just too much for them and I suppose they do a 'whitening out', I suppose we all do to some extent don't we? If you get too many stresses it's very difficult although I have a feeling that in our cases we often try and block out all the other things, no matter how terrible they are and concentrate on that one thing.

Joe:

That's really interesting. I mean you've been referring to ... I suppose you could call it aspects of cognitive functions or about them not having time to process it ... so is that something, that thinking, has that come from your experience or from reading or ...?

John:

Partly reading and partly through hearing the people give talks here. I did do a very small amount of psychology myself anyway. I did a basic ... I can't remember what it was called ... a basic course in Psychology at the Open University and I was going to take more with a view to doing Educational Psychology but it was just that I never realized it was too much of a climb and the wages too poor for half of that time, so I couldn't do it because I have to support a family.

Joe:

Right.

John:

So I do have some ideas about cognitive thinking and therefore I sort of understand, when someone says about the processing times, I do understand that that's a problem and you can see it in them, give them enough time [and] they'll be okay. If you try to give them one thing and then, straightaway, another thing it's too much for them. I mean I try to, when I do worksheets and things like that or choose a textbook I try to get things that do a little bit, ask them a question, do another little bit, ask them a question, rather than a whole, big passage and then ask questions.

The need for longer processing time is indeed a common cognitive concept used theoretically in relation to autism, as part of the overall theoretical construct of impairment in executive function (Luna *et al.*, 2007) and it seems clear from this extract that this is something that John is both explicitly aware of and makes use of in the development of teaching techniques. That is not to say that the other teachers are not implicitly aware of this concept. In fact the category coding analysis indicates that both Kathy and Mandy, on at least one occasion each, made reference to the idea of giving children more time, but there was no associated explicit consideration of this as being based on theoretical knowledge.

John's orientation towards the explicit use of theoretical knowledge can be considered to mirror, at least to some extent, his general orientation towards teaching. In several of the observations, I had a strong sense of the importance of knowledge and of knowing about things pervading John's lessons at certain times, as in the following extract from the first observation. In this lesson, John is teaching a maths lesson, focusing on sequencing, including the use of doubling:

There is half a minute or so of milling about and quite noisy getting ready but the children sit down quite quickly. John speaks to the teaching assistants, directing them to work with particular children. There is chatting and getting ready going on during this. John then says in a clear voice, 'Good Morning everyone' and they respond, 'Good Morning John'. Gradually the children focus on the lesson – John introduces the lesson objectives which are about sequencing. They are up in a list on the Interactive White Board (IWB) and John reads them out, 'to recognize patterns, to recognize sequences...discuss your work'.

John starts off with a doubling 'warm up' and asks selected children doubling questions. At the start John tries to get some sort of 'doubling' slide on the IWB but this does not appear to be working. He spends a few moments trying to get it working and says, 'They all worked on our computer last night but not today, honestly, that's just typical. [laughing]' John switches to working on the flip chart and draws up a doubling sequence. He says, showing a number added to itself, 'that's all doubling is!'

I observe Jeremy. John asks Jeremy, with a warm inviting tone, and as though he's got one just right for Jeremy, 'Jeremy, what is double five?' Jeremy replies, 'double five is...ten' in a flat tone. John says, 'well done' in a generous tone. John goes on and asks other children doubling questions. He finishes off by pointing out to the children that 'doubling is?...Times two [emphasis]'

John then moves on to the main part of the lesson and says, 'So...we're going to do sequencing'. He goes back to computer and brings up another slide, which works this time. He shows the image on the IWB which is using pictograms to show a doubling sequence, as in '2,4,8,16 [...]', and says, 'You could have a doubling [emphasis] sequence.' John goes through the pattern and the children echo with him '2,4,8, 16 [...]' John points out the additive pattern, '4 then 4 more? [...]'

I observe Jeremy. Jeremy focuses in and out and then gets up and walks around the back of the classroom before going back to his seat. He does this several times during the lesson, sometimes accompanied by clapping.

John then gives out a worksheet based on pictograms and identifying patterns. John initially asks Charlotte, one of the teaching assistants to work with two children, Oswald and Karl, individually at the end of the table, showing Charlotte what the children need to do, and then draws in the rest of the group with him – ‘Now I’m going to do some work with you on sequences.’ He demonstrates different patterns on the pictogram sheet. John works with Oswald, Karl and Charlotte for a few minutes, making sure that they are clear what to. The room is quieter now. John then addresses the larger group and explains to about the pictogram sheet, ‘you have some shapes here, but the idea is that you’re going to think of some shapes and then we’ll have a look at them at the end’. John then shows the sheet to Jeremy and points at a sequence with four pictograms in a square. John says, ‘what shape is this, Jeremy?’ Jeremy says, ‘4’, John says, ‘no...it’s a bit like a square isn’t it?’ ...John says, ‘Yes’ very quickly.

The class carries on working on the worksheet and there is an industrious ‘academic’ atmosphere.

In my initial field notes made after this observation, I annotated this section of the observation as follows:

I have a sense when observing John of an academic tone to the session – a sense that there is something to learn, and that there is a possibility of learning it, and that learning and knowledge is something important in its own right.

Knowing about things is important to John, and he is also committed, as a teacher, to facilitating the development of knowledge in the children he is working with.

This extract also shows Jeremy exhibiting echolalia and pacing, as well as John's constructive attempts to engage Jeremy in the lesson at a level, in this case, appropriate to his needs.

John's thinking about theoretical knowledge

I initially identified John as having a cognitive, academic aspect to him, and that in some observations, there was a sense of the importance of knowledge. It is also clear that even though he was somewhat self-deprecating about it, he had read a fair bit about autism, and used theoretical constructs from typical psychological theories about autism at times in his interview responses. This contrasted to the absence of such usages with the other teachers, apart from Lynne. My initial impressions from observations, and from the early interviews, tended to confirm what might be characterized as a more cerebral approach. However, as happened so frequently in the study, impressions of states of mind gained in one context did not paint the whole picture. Thus I was somewhat surprised when in the third interview John gave this nuanced response when I asked him what sources he drew on in working with children with autism:

Joe:

And what do you draw on in coming to those ways of working ... with the children ... where does that come from?

John:

It comes from the experience I've had over the years here. I guess ... not I guess, I KNOW I've had quite a bit of teaching on autism here, both informally and formally. I

haven't done a huge amount of reading on it in terms of ... after a day of working here I think it's quite difficult, especially with my family, so I find it difficult just to sit down and read on autism. That may sound terrible but it's the truth. But I have an interest in it.

Joe:

But do you think it would make a difference? Do you feel that if you read loads and loads of books it would make a difference?

John:

I think if I read the right books here and there it could make a difference.

Joe:

Right.

John:

I think if I read too much what it would do is turn me into a boffin who knew this and that about autism but wouldn't necessarily have the practical knowledge on it. But the thing is ... is what I really am working from is the empathy ... yes I suppose it is empathy ... I was just looking at you to see whether it was sympathy or empathy but we all have difficulty learning certain things and we all have times that we find that we're barraged by too many things all at once and it's overload ... and to allow empathy to guide to some extent is quite a useful thing.

Joe:

What do you mean ... what does that mean ...?

John:

It means that I'm trying to put myself into their place; I'm trying to think how THEY would think in order to see how they would react and that allows me to think ... 'I give such and such, will they enjoy it, will they do it ...?' etc. etc. ... 'How will they be able to tackle it ... is there too much writing for them?' In many cases the students will reject the work if there's lots of writing but if I've made it a multiple choice option they'll go for it and things like that. So all the time trying to think ... what would make it attractive to them and how would they learn from it etc. ... bearing in mind that they do have this overload of information and so on.

John is suspicious of too great an emphasis on theoretical knowledge, and gives at least equal weight to 'empathy'. When asked to explain what he means by empathy, there is still something of a cerebral quality to it, it's about working out what format of question will work best, and there is a continuing implied reference to impairment in executive function. Yet at the same time it is about putting himself in their place. There is something resonant here with how Bion approaches the relationship between intersubjective experiential relationship and theory. Even if it is still perhaps, in Bion's terms, too inflexible, at least there is recognition of the importance of the intersubjective relationship to the human other in mediating how theoretical knowledge is applied.

I return to this theme of the relationship between theoretical knowledge about autism, empathy and professional practice in the final interview:

Joe:

I just wanted to come back briefly to ask, we talked previously quite a bit about your view of autism and working with children with autism and you talked about a bit about it in this interview. You said in the last unit you were working from, in your day to day working with them that you were working more from empathy than from, you used the phrase of 'being a boffin', a theoretical based knowledge although you said that was also something that could be useful. I just wondered if you might say a bit more about when you said about working from empathy what that meant?

John:

Yes, I mean I don't mean to say I've got no knowledge of autism, I am sure I've got quite a lot although I haven't formally gone and taken a qualification in autism, so...

Joe:

I mean that was my interpretation, the understanding I had was you thought the subject, the theoretical knowledge was important and could be beneficial but it wasn't as important as the ability to be working from empathy with the children.

John:

Yes, I think that's probably true and in fact I think in some cases some people have got very good theoretical knowledge but can't properly empathies with the students. I mention no names at all but that can happen and if you've got the theoretical knowledge, I know that it can be a good background for practice as well, I know that from my other disciplines and good theoretical knowledge normally gives good practice but it doesn't have to, it depends whether the person is applying it or not.

Joe:

So you were saying about empathy, can you say a bit more about that?

John:

Well to understand that you have problems in your own life that you try to solve and they have got problems and they are trying to solve them. I do think that I have some past history which makes me think that maybe there were traits in my life of it, I don't think I am autistic but I think I might have had the odd trait, for example when I was a young adult people said, 'why do you stare when you talk?' and I realized I was going, staring at the person and not giving normal eye contact and at that time, and I can't remember whether they taught me or where I learnt it but I learnt that people normally look in the eyes and look at the mouth, look at the eyes and look at the mouth, and I actually sort of re-taught myself, I am not sure whether I untaught myself the natural, that's possible because I went through a phase where I was interested in staring for a point, for the sake of it, teenagers go through daft things and so on, and I might have taught myself to stare too much, I have a feeling I did, from reading something or other. And then so I found

myself however sort of teaching myself, you know to look at the person's eyes and look at their mouth and not to go sort of staring at them all the time because of course it's actually physically a challenge, not physically, mentally a challenge if I stare in their face and so on. Also I think I tended, at that same time I tended to move up to the person too close. So I was in their personal bubble. But then of course I probably am not autistic because I can appreciate the idea of personal bubble and so on, it was just somehow I hadn't learnt those things so what I am saying though is we can make those sort of social errors and so on and of course they have got this problem which makes them even harder to socialize and think creatively and makes them, information come at you in a way which is bewildering sometimes to us but is constantly bewildering to them. And from knowing where we get stressed and it is overpowering gives me the empathy I think to understand them a bit. I think it's empathy as opposed to sympathy there, we do sort of, have the same sort of things, we just, not at the same level.

Joe:

I am just wondering how that plays out in the classroom or when you are working with them?

John:

Oh that's a big question, I don't know, I have not thought about it so I don't know where it plays in that sense. It does in terms of my communication, because you learn after a while not to speak too much or to try and limit your words and if I speak to someone here one of the students, I'll probably give a command in almost a euro speak sort of way, in a

pottered thing with less of the articles in it and just more of the actual subject and noun, so it has an effect on that, it has an effect on work I produce for them to use, always trying to make something simple, trying to make it so it's visually pleasing, visually comforts rather than alarms I don't want to see a dogs dinner, I mean I would be fine with that but an autistic person could well freak at seeing something like that. You know it's the same sort of feeling going into an exam, a maths exam and thinking [gesture] the questions, you know, and a bit later we actually draw a breath and we look at it closer and we see it's not such a problem. I suppose they are always going [gesture] in their lives. Does it cause me to other things, I am sure it does, I am sure it causes me to do a lot of thinking about what are the pitfalls in something that I wouldn't otherwise think of.

Joe:

It sounds to me that you are saying like your, you know your self awareness, how maybe some things, at one time they are difficult for you kind of helps you in understanding how things can be difficult for them.

John:

Yes, I think it does, I think also I have some theoretical advantage on that, not from autistic study, not studying autism itself so much as studying a little bit of psychology and in terms of recall and you've got recall and recognition, a difference between recognition and recall, how much harder recall is than recognition for example, so that, you know realizing that quite a number of them have that problem of recall makes me put things in multiple choice style rather than get them to think it out straight from jumbled

thoughts. I suppose in a sense I am supplying them with something in their minds, later on they might put it in the right way but initially they have it down in front of them and the choice of the GCSE science papers that I take for them, you've got a choice at the moment between totally multiple choice and totally written and I take the totally multiple choice options for them because I think that much better for them. Also in terms of the psychology I did, had things about attention, you know if you've got more than one source of information coming to you at once what do you tune out, do you hold the other while you partially attending to it or you know does it get ignored completely and I understand that as well from the psychology. And that of course has an influence on knowing what they are like. I think, this is how I see it, that they find it hard to attend to more than one thing at a time. We, when we attend to things were attend to this, we keep an ear out as it were to what's going on around us and we sometimes tend to one or two or three things at the same time and I don't think that they do, I think because of the confusion of things that they have to keep to the one thing otherwise they are going to lose track of what on earth they are doing at all.

Joe:

Interesting.

John:

I hope I've conceived them properly.

John is certainly not autistic, but it does seem plausible that his experiences as a teenager of not matching to social conventions in some instances have given him an experience of what it feels like not to fit in, that he has drawn on in working with the children, and which may even be a significant aspect of his motivation to be at the school.

In my field notes for this interview I noted that the interview left me with something of a disconnected feeling. When I reviewed the transcript, this lengthy extract did seem to have an oscillatory or jumpy quality to it. On the one hand, John seems to be suggesting that he is drawing on his experiences in relating to the children and getting in to their shoes. On the other hand, there is considerable discussion of psychology. The two aspects are oscillatory in that there doesn't seem to be a smooth connection between them.

Interestingly John talks about attention from a psychological perspective:

[...] you know if you've got more than one source of information coming to you at once what do you tune out, do you hold the other while you partially attending to it or, you know, does it get ignored completely

This, in a sense, is the question posed to caring professionals by Bion, and this extract seems to indicate the tension experienced by John in achieving this partial attention to intersubjective relationship at the same time as making use of theory. My countertransference response to the material, that it made me feel disconnected, perhaps points towards the difficulty that John had in keeping these two types of knowledge in mind at the same time when working with the children. This tension is quite possibly exacerbated by the difficulties experienced by the children he is working with in making connections between concepts. John may feel under an

unconscious pressure to help them to repair these connections, or to maintain them for them, and this may be easier, given his internal dispositions, for him to focus on, than the more challenging task of engaging with them intersubjectively.

We can see this tension being played out in the context of the positioning of John and the app, and concurrently in the relationship between John and Jean (Jeremy's key worker assistant), Jeremy and the app, in the fourth observation.

Closer to the Action: achieving intersubjective relationship?

The fourth observation is of a lesson on maps and co-ordinates. At the start of the lesson, as I come in to the class, John tells me that his wife and children were sick over the weekend so he is feeling quite tired. After that, Jeremy, who had gone to get his smartphone from the office where it was supposedly charging up, comes back in to the classroom. At the start of the lesson, John is quite jumpy and anxious. It is likely that this anxiety relates to being observed by me, but also to what seems to be a significant level of uncertainty and linked anxiety about how to use the app with Jeremy.

The lesson then starts properly with John demonstrating finding a coordinate position on a map on the interactive whiteboard. The boys are fairly attentive, and there is some good natured calling out and joking between John, Jean, two other teaching assistants and the boys during the demonstration as in this extract:

One of the icons is a pub [public house] and there is some good natured joking about this.

John says, jokingly to the children, as he places it, 'that's where you go to have a drink.'

There is a general laughing, 'Oooo...' sound from the children. The teaching assistants laugh as well.

John finishes the introduction, still sitting at the PC, turning round and saying in a loud, confident voice, 'I want you to do that', smiling and pointing his fingers up (a bit like a double Churchill V sign). John then moves on to showing them a follow up activity, an internet based, more complex coordinates based map. He spends a minute or so locating this, and shows them how to access it on the computer.

He says, 'I'd like you to click on the hyperdrink.' He laughs, comfortably, and says jokingly, 'that's because of all that about a public house before...hyperlink...click on the hyperlink'. One of the assistants says, jokingly, 'Drink Up...Drink Up....'. John clicks on the link and shows the class the map, which has some relief contours and looks more complex than the previous one. John says, as he is showing it, as an aside to the adults, 'It might be a bridge too far.' Jean interjects, 'Let's see how they get on with the first one.' John nods, seeming for a moment slightly unsure, and then saying more confidently, 'I'll help you boys with it,' generally to the class.

In my contemporaneous write up of the observation, I note in relation to this:

I have a sense of the class – the children and the assistants – almost holding John – being understanding of his 'eccentricities' and perhaps sometimes perceived lack of authority. I might extend this to the school as a whole. I remember, when John was initially involved in the project four or five months ago, and was clearly stressed at the time by the additional responsibility (which he had not had any time allocation for at that point), that

Tamar (a fellow researcher on general project), had said, based perhaps on his perceived lack of ability in her eyes, ‘I think they look after him really well though.’

It is relevant to note that Jean seems to have a more accurate estimation of the ability level of the children, and his hesitation suggests that he is happy to defer to her evaluation of the situation. This is, on one level, entirely reasonable, as Jean as a teaching assistant works with this group all the time, whereas John only has them a few times a week. At the same time, however, it also suggests that in this instance John doesn’t quite find the range of the children – that, despite his detailed responses about thinking about their needs, he doesn’t quite get on the right level. The contrast to Mandy’s case later on, in particular, is quite instructive. This interpretation is, I think, bolstered by my feeling (which I would consider a countertransference response), expressed directly in the observation narrative, that John is, to some extent, being contained by the class, rather than the other way round.

There does seem to be something of a pattern here for John, not just this isolated incident. There is corroborating evidence for this interpretation from the comparative category coding. The data node, ‘Could be closer to the action’, used to denote instances where the teacher seems not to have gauged the needs of the children, had four source references from four separate sources for John. Seven source references from three sources for Kathy were also coded to this data node, but none for other teachers.

The next extract is from around half way through the lesson, and the children are now working, semi-independently on completing a worksheet which involves finding coordinates on their own map. John now moves to working with Jeremy on using the app:

John now goes over to the other side of the classroom to where the phone was charging (it is around 10.15 am) and gets the phone and stands behind Jeremy, tapping it, frowning and muttering, ‘..enough charge...?’

Jeremy turns round and shows John his sheet, standing up, and John looks at him, with their backs to me. Jeremy looks over attentively at the sheet with John – ‘C6...good...C8...yes [...] and so on, and then, ‘Well done, Jeremy’. John then says, ‘Now Jeremy, I would like to spend five minutes talking...’. He doesn’t finish but nods at the phone which he has given to Jean who is sitting down at the table. Jeremy seems markedly stressed as he says this. He starts echolalia – ‘say....say....say [...]’ and starts to wander about in a little circle by the table. John says, I think to me and Jean, ‘He’s stressed already, isn’t he?’, but Jean says, calmly and non-committedly, ‘He’s alright.’ Jeremy sits down but continues with the echolalia. Jean starts the phone up and gives it to Jeremy. John stands over him and starts to explain, but the other teaching assistant sitting at the computer with Robbie behind John calls out, ‘What do you do here?’ John interrupts and rushes over to the assistant, saying something about ‘Primary Maths Resources’. He is over there very briefly and then darts back to Jeremy. He takes the phone and apparently sets a personal trainer intervention on the app running.

It is relevant to note the difference in reaction between John and Jean. John sees what is, fairly, an overt display of echolalia, what is typically an anxiety related behaviour. Yet Jean stays calm, and is able to stay with the anxiety, which this new technology making new demands, no

doubt is provoking in Jeremy. She can stay with it, and perhaps to some extent process it for Jeremy, and possibly also for John as well, at least for a short time.

It also seems possible that for John, the uncertainty and anxiety felt in respect to the app is linked to John's ongoing tension about how to work with these children, i.e. what the balance is between 'empathy' and use of theoretical knowledge.

The observation record continues:

John then says, methodically, 'what we're going to do Jeremy, is to know that this will help you...yeah?...you're going to talk with Jean...'. Jeremy – 'say...say....say'. John – 'you're going to ask her questions.' Jean confirms – 'ask questions?' and John says, 'Yes'. Jean starts looking at the phone with Jeremy and says, quizzically, 'The battery's low.'

I decide to move to the other end of the table as I am concerned that my presence close by may be additionally stressing Jeremy. We sit as shown in Figure 1.

[Figure 1 here]

John also moves off, saying in an aside to me, that he'll let him get on with Jean so he doesn't get too stressed. Jeremy seems to be navigating the phone, as before, quite confidently and gets the idea clearly. He reads the questions that the personal trainer prompts for in his typical monotone –

'How many brothers and sisters have you got?

‘What are your favourite sweets?’

‘What is your favourite TV programme?’

Jean answers the questions brightly; she smiles and seems to be enjoying it. So to the first question she says, ‘Dawn...Dawn’s my sister’. I notice that with this question, as with the others, Jeremy doesn’t make much of a register of the answer and moves on to the next question.

However, Jeremy also seems to have somewhat relaxed. He has stopped the echolalia, smiles occasionally, and seems quite focused on the phone. At the end of the sequence, the personal trainer plays a short Harry Hill video (a comedy character from UK television). John reacts to this very positively – he moves back in his chair, smiles broadly and really seems to like it. Jean asks Jeremy if he would like to ‘ask questions to anyone else...to John?’ Jeremy nods. Jean signals to John, who has been hovering, and he comes and sits by him. He takes the phone and clicks through some screens. John seems a bit unsure and Jean gives John some prompts as to how to use the app. Jeremy repeats the series of questions to John, ‘What’s your favourite sweet?’... John replies, ‘Oh...chocolate’, said in a somewhat luxuriant tone.

I note that as with Jean, Jeremy doesn’t give any follow up responses to the answers, and stays looking at the phone. Before the end of the personal trainer sequence, I notice Jeremy looking quizzically at the phone. John looks with him and says that it’s running slow and that it must be the battery. The reward video doesn’t seem to run this time and a bit abruptly Jean says, ‘are you finished...do you want it to get charged up?’

Jean goes on and says, 'Well done Jeremy...shall we let him have free time for doing well?' John says yes and nods and Jeremy gets up, leaving the phone on the table, and goes over to one of the computers. John says to me, smiling, in an aside, that he had these conversational prompts on a key ring, but they have put them on the phone as well. John goes on and says, 'He hasn't really got it in to his head that the phone is there to help him.... and that that's what I was trying to do there'. Jean then says to John, 'we could add on to those questions, couldn't we John?'

In my field notes, I note that in this instance, the atmosphere feels relaxed and open, in contrast to previous instances when John was working with Jeremy alone, when things feel tighter and more constrained. This is also apparent directly from the observation narrative, where in contrast to the earlier parts of the observation, John and Jeremy both seem much calmer and focused here, and seem to be able to work with the app constructively, to explore what it can be used for. It might be that Jean's previous interjection, 'He's alright', had potentially, by processing at least partially the significant anxiety and uncertainty present in the session, opened up a space where they could better tolerate the no doubt ongoing uncertainty linked to the app, allowing them to engage in work on the app.

In the work study review of the material, colleagues noted how Jean was much calmer than John. They also suggested that it is possible to identify a male/female principle in play here, with Jean as the female containing principle creating a nurturing holding environment that facilitates Jeremy in learning. In (necessary) contrast, John is the paternal one, more cognitively based and driving. It could be argued that both functions are required if Jeremy, or children in general, are

to engage in growth and learning. In a way, Bion's clinical approach can be considered as overcoming, or merging what Gabriella Mann (2002) characterizes as the psychoanalyst's 'oedipal struggle' between Papa-Freud and Mama-Klein, between interpreting and holding, phallus and breast, patriarchy and matriarchy" (ibid., p.74). We might also add the struggle or dialectic between knowing and not knowing. Mann writes this in relation to Bollas' work (Bollas, 1999), where he suggests that discussions about theories advocating holding and those advocating interpretation are misguided, as it is impossible to have without the other. The derivation from Bion is clear. When Bion directs the analyst to work without memory or desire, the cognitive function doesn't disappear from the consulting room, but it merges, in the transformation of 'O', inescapably with the empathic, intersubjective function. This is the core of productive uncertainty, where based on Bion's epistemology and clinical guidance, both theory and relationship 'in the moment' are iteratively intertwined.

In our material here, it is possible to suggest that although no one person achieved this, when John and Jean, in their professional roles, worked together, *they* intertwined holding and interpreting, empathy and cognition, which gave Jeremy the support he needed to engage with the app.

Flight in to Theory

I have considered John as holding a paternal cognitive function. At the same time, I have identified the tension he seems to experience, revealed substantively from interview responses, as well as my countertransference response to observational material, between being 'empathic' and using theory-based approaches to autism. This conflict can be further seen in the third

observation. On this occasion, a maths lesson, John is working with Dawn, Jean's sister. As in the fourth observation, John makes time for Jeremy to work on the app. In this extract, the children are working on a shape and space task:

Jeremy has come back to his seat now and has started cutting out his shapes. He suddenly turns to Dawn, and in a high pitched staccato says, 'Sorry Dawn....sorry Dawn....are you angry, Dawn?' He looks towards her but doesn't make eye contact. He repeats this a few times, 'Angry?...Angry?...Angry?' Dawn says, soothingly, that she isn't angry at all. John, who has been watching from the front of the desk, says in an aside to me, that he wonders whether it might be possible to have emotional expression recognition characters on the phone. I feel confused for a moment and John says, 'It's relevant...'. I make the connection. I say that I have seen face recognition software for children with autism and John nods and says, smiling, that maybe we could load that on the phone.

Again we see, this time with Dawn, a maternal empathic position contrasted to a paternal cognitive position. My feeling of confusion perhaps serves to reflect the greater note of dissonance between them. It is, no doubt, possible to have emotional recognition characters on the app, but John, with his technical understanding, probably knows that this is outside of the scope of the current project. There seems to be something of a flight in to theory and cognition, rather than an appropriate use of it. Perhaps it is easier for John to think about a technology solution which might bring certainty and regularity to Jeremy's often difficult to understand

behaviour, as opposed to having to process the quite difficult feelings of anxiety and inadequacy that Jeremy is projecting in this instance.

This pattern or theme seems to surface again in the subsequent third interview, in which I ask John about his perceptions of Jeremy's behaviours, when they are working with the app later in the observation:

Joe:

Right! One of the other things that I noticed...one thing that I noticed that during the lesson and also when you were working with him on the phone ... echolalia he was like ... repeating this phrase ... it sounded to me like he was saying, 'say...say...say'.... I wasn't quite sure what it was.

John:

Yes, I'm not sure myself but I do know that he has quite a number of those echolations ... is it echolations?

Joe:

I don't know [laughs.]

John:

Yes I think I should try and look it up. It's not a noun, it's a verb isn't it.

Joe:

What does it signify to you when he's doing that?

John:

Well I would say it's displacement behaviour; he's doing something because he's not feeling quite comfortable. I think you might have noticed as soon as he had the instructions for the lesson he went into a little bit of a routine of his, his own, again because of displacement and the funny thing ... well, not funny but the interesting thing is he could do it; he was quite good at it really wasn't he, he wasn't bad.

Joe:

Do you mean when he went to get a glass of water?

John:

Yes.

Joe:

Yes, I remember you commented on that.

John:

Yes. The glass of water and also he sat there and there was that period of not doing anything and when he was asked, 'What did he need?' he said, 'Scissors' so he sort of knew that he should be acting but he didn't want to act until he was confident. I don't know how we can get that using the phone. If we could, if we could get him sort of

prompted; that might help as well. That might require him ... you can't do it by a buzzer of course but I'm just thinking if we can get him trained whereby he's looking for the prompt for him to help him ... 'What do I need?' ... 'Go get it!' ... that sort of thing you know [...]

John is clearly thinking hard about Jeremy here and the presence of the app also seems to be a spur for his thinking more about Jeremy and his needs. Yet there is something of an arid, scientific quality at play here, which seems divorced in a sense from Jeremy.

Scientific theory and technology are linked paradigms. For many people, and quite likely for John given his background, technology represents the expression of scientific discovery and its regularized expression in the world. The app as a piece of technology seems to be acting, for John, as an object that sits somewhere between John and Jeremy, acting in a sense as a barrier to allow John to distance himself from a true intersubjective experience in relation to Jeremy. This seems to parallel instances of John's use of psychological theory, which at times, also seem to get in the way of John being 'close enough to the action'. This is, of course, a danger which John himself has clearly identified in his interview responses.

We could regard John's use of the app, in this instance, as being, to some extent, an example of what Bollas (1992) names a 'terminal' object. Bollas describes a whole variety of object types, including transformational and terminal objects. Objects are not just people, but can be physical inanimate objects, landscapes, flora and fauna, or cultural genres, such as a type of pop music. Bollas identifies the transformation that takes place when the mother's processing of the infant's projections results in a developing experience of the self. On an unconscious level, the self

continues to seek out objects that will also facilitate ongoing transformations, making use of its 'idiom' into the object world (ibid., pp.59-65). Healthy individuals will express this desire by making creative use of music, painting, novels etc., as transformational objects. A terminal object, in contrast, '[...] ends the self's disseminative movement. It ends the natural forward movement of those departing trains of thought that are the elaboration of any person's idiomatic experience of life [...]' (Bollas, 1995, p.75). The use of terminal objects is dry and arid, and lacks a quality of live relatedness.

Bollas tends to use these object categories in quite a fixed way, so an object that is transformational will typically always be transformational for an individual. As such, I do not apply his use of these categories in an identical way in this study as, in fact, it seems quite clear that both John and other teachers have multiple and changing identifications to the app. Yet Bollas' idea of a terminal object does seem relevant to John's positioning towards the app, in that it there seems to be present that same arid quality in John's use of the app in this particular instance.

Back to Schön and Bion

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 knowledge in and the actual practical application 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' with the example of a 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 [...]

(op. cit., 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. As we saw in Chapter 2, both socio-cultural and cognitive interpretations of Schön have their limits. Nevertheless, when he uses phrases like 'being in the groove' or 'having a feel for', Schön's idea of Reflection-in-Action seems to require that there is some way in which knowledge of some kind is flexibly made use of 'in the moment', in response to ongoing events. I have gone further, and argued 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, or John's 'empathy', intercalate 'in the moment' of working with the child.

Let's come back to the tight rope walker. 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 memory and desire – 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, although exemplified with John, Bolas (1979;1992) has shown how we can extend Bion’s ideas to objects. 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’ – I am not a tightrope walker, but I imagine it works something like this. 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 memory and desire are 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 tacit 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. It is this function which seems in some of the vignettes presented about John, to have got lost, and which my countertransference responses sometimes pick up on. The open, flexible possibility of a concept that the app might represent, or any other concept that a therapist (or teacher) might bring to bear on a situation, has been prematurely saturated, or ossified. The desire for certainty, for clear unambiguous knowledge, for scientific certainty, which is an understandable and very common desire, has pushed John (or he has allowed himself to be pushed) in to a flight in to theory.

For Bion, knowledge about the analysand arises first from intersubjective communication, mediated through the transformation of 'O'. Bion uses the grid (see Table 1) as both a system of

notation useful to the analyst when reflecting on the analytical session and as an outline for how thoughts and concepts emerge. When focusing on implicit and explicit knowledge, the key move in the grid is from rows D to G. D to E is from pre-conception to conception, where 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 an attack on linking 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 communication with the analysand. It is inherently implicit, and is not based directly on reference to a set of theoretical knowledge.

Combining the horizontal and vertical aspects of the grid, then when conceptions become saturated, the analyst (or the patient) may engage in attention, research and action (columns 4-6), which is intertwined with the abstraction of conceptions into more advanced constructions of thoughts (rows F and G). This construction of thoughts is, for Bion, based on noticing similarities between phenomena, and developing links between them, as Grotstein put it, engaging in 'symmetrical thinking for the purposes of comparisons' (2007, p.313). This happens as a process in the consulting room as 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. They need to check that they still relate to the personal 'O' of the analysand. As Grotstein stresses, for Bion, explicit thinking – an articulated theory, a comprehensive interpretation, can only be valid if it arises, is directly articulated to, implicit thinking that equates to an experiential knowing of a human other. Bion's epistemology shows us, and shows us to an extent based on acute empirical observation or experience, 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, to the personal 'O' of the client. 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. This is where memory, desire and understanding risk a flight in to premature certainty. This is, at least in some of the material presented, what John opts for, as most of us do probably every day of our lives, in order to quell the anxiety, to make things manageable, to be able to get through the lesson, the analytic session or the doctor's consultation. But Bion's epistemology, based on his clinical experience, directs the analyst to eschew memory, desire and understanding, to hold 'in the moment', in Schön's moment, to hold in a psychoanalytically constructed quasi-mystical place for long enough for the tacit intersubjective knowledge of the other, intertwined with but not subservient to theoretical knowledge, to come through the unconscious to the surface. It is the waking dream where we come to know the other. We can speculate that if Bion directed this mode of thinking to analysts,

he might direct it to the community of caring professionals as well. Certainly, in my mind, that community might at the very least take a moment to reflect on the import of what this mode of thinking might mean to them. It is true that the space that the caring professional has to respond to such a directive may be limited, it may be, at times, squashed out of existence altogether by policy directives, time and resource constraints, and other pressures. It is also true that, as we have seen Bion himself clearly acknowledge, laws and systems have their uses; categorical systems of knowledge paradoxically make the world manageable for ‘the ordinary people’, which I take to mean both the group in relation to the messianic mystic, but also the individual in his ordinary moments compared to the individual when we achieves the status of the mystic and achieves intersubjective knowing.

All this is true, but Bion’s epistemology inescapably then raises the question as to what kind of activity, if they lose sight of the shared intersubjective experience between them and the client, the caring professional is then engaged in?

Varying States of Mind

I identified my feelings of disloyalty towards John that arose in the work study review of the fourth observation. It is perhaps appropriate to revisit these feelings here, because as well as my no doubt strong personal identifications, there is as well a reasoned case for redressing the balance. An important point, again identified during the work study review, is that John was the only male teacher in the school, although there were other male staff. My own experience of working as a male teacher or lecturer in largely female environments has made me aware of the fact that there is a tendency for the male, cognitive function to be projected in to the male

teacher. An unconscious female desire to get rid of the dangerous or difficult cognitive function associated with maleness, can lead to it being projected, in this case in to John. So we might consider that as well as the school 'holding' John, he may as well have been holding something for them, and this could have included struggling with the place of psychological theory and of technology, both potentially dangerous and difficult constructs, in their work with children with autism.

It is also important to note that the observational record showed John holding a variety of positions in relation to Jeremy and the app. It was probably the case, as I have illustrated above, that at times he did not get, in Bionian terms, the balance between intersubjective relationship and use of psychological theory right. At times he used theory and knowledge as a way of escaping from the need to tolerate uncertainty, with the app also playing a role. This meant that sometimes he wasn't 'close enough to the action'. We might consider that in contrast to the next case, Mary, he didn't have as good a sense of their 'in the moment' needs as might have been possible. Yet, on a number of occasions, sometimes with the support of Jean and Dawn, and sometimes without, John did in fact demonstrate a nuanced and empathic interaction with Jeremy, as can be seen in the following extract from later on in the third observation:

Jeremy gets up quite abruptly and goes to the back of the room to the sink to get a glass of water. This initiates a discussion between John and Dawn, with me sitting in the middle, as to whether Jeremy's behaviour in getting up to get water is related to stress. Dawn agrees that it probably is and John says that he thinks it's related to when he is starting a piece of work. Jeremy comes back to his seat and John says to him, 'What do

you need? His voice tone is soft and rhythmic. Jeremy says, in his staccato high tone, ‘Scissors’ and goes over to get a pair of scissors. He holds his hands out in front of him slightly and his mouth is thin – he has a tense expression. John says, in a bold warm voice, ‘Well done Jeremy, that’s right.’ During this exchange I observe John. He seems calmer in this observation, although also perhaps more tired. His movements are slower; I observe him stroking his hands together behind his back.

As with so much of the material in this study, applying a psychodynamic lens to the classroom shows us how, when dealing with the myriad complexities and multiple, changing interpersonal interactions that the classroom presents, let alone one working with children with significant impairments in social communication, it is not possible to speak about teachers having a single state of mind or a single position. There may be predominant patterns and modes of operating, but these do not lead to rules or definitive conclusions. In fact, the clearest conclusion may be that as the classroom multiply varies so do the states of mind of the teachers that inhabit them.

MANDY

We were initially introduced to Mandy in Chapter 2, where we saw her finely modulated interactions with Angus, Piers and the other boys in her class.

Current Role and Career Background

Mandy started out as a mainstream secondary Physical Education (P.E.) teacher, took thirteen years off to raise a family, and then went back to teaching this subject in mainstream schools, as

well as some History. She also spent a short period working in a primary school. Mandy has been at Randall School for ten years, and teaches P.E. across the school, and a few years ago was given responsibility for teaching English. Mandy is also a form teacher. Mandy indicates that she is thinking of retiring in a few years.

When asked, in the initial interview, what her reasons were for coming to work at Randall School, Mandy replied:

Basically I was getting old and they don't like older P.E. teachers and young P.E. teachers are cheap and I was doing maternity cover; six months here, six months there. It was continuous because I must have been doing a decent job and my name went around. The last school I went into had a very good special needs department and I spent two or three weeks in there AFTER my maternity cover had finished and somebody there said, 'There's a job going at Randall, do you know anything about autistic children?' ... I said, 'Not a thing' ... she said, 'Well "so-and-so" is autistic!' and I followed this child around for a couple of days and found it quite interesting so I thought, 'Well, go for it!' and then I got myself a full-time job ... Hooray!' ... so basically it was to get a full-time job: It wasn't that I was desperate to come into special needs education, I wanted a full-time job and nobody wanted an ancient P.E. teacher.

Mandy's overtly stated rationale is that nobody else wanted an older P.E. teacher. In fact, this theme of being anxious about being too old or in danger of being on the scrapheap, surfaces a few times in later interviews. However, Mandy's reply also indicates a desire, somewhat understated, to find out more. After tracking a child with autism for a few days she found it

‘interesting’, or perhaps more than just interesting. No doubt both motivations played a part in her decision to move in to a specialist setting, and to stay there for an extended period.

Key Information Sources for Mandy

1st Interview 7 October 2009

1st Observation 26 November 2009

2nd Observation 19 March 2010

2nd Interview 27 March 2010

3rd Observation 24 May 2010

3rd Interview 28 May 2010

4th Observation 29 June 2010

4th Interview 8 July 2010

The initial observations and in informal exchanges Mandy displayed, in relation to the app, what was initially interpreted as a negative stance. For example, in the initial training session for the technology tool, run by research colleagues, Mandy adopted a flippant stance that suggested that the activity was a significant inconvenience for her and that she would rather be doing something else.

Kevin

Mandy has two children, Kevin and Marlin, using the app, in her form class. Kevin was born in 1995, making him 14 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 102, a VQ of 114, and a clinical psychiatric diagnosis on entry to the School of autism. He also had a diagnosis of epilepsy although there was no evidence of this affecting his behaviour during any observations. Kevin has been placed outside of his actual age group in the year above with Mandy's form class, making him the youngest member of this class. This placement was made, I understood from Mandy, because the school felt that socially Kevin would do better with this group of slightly older children.

Although both Kevin and Marlin made use of the app, more of Kevin's interactions were observed, and the theoretical issues stimulated by his use were considerably more interesting. As such, the focus in the presentation of the case will be on Mandy and Kevin.

Kevin lives at home with mother and also attends the school on weekdays. I was told by Mandy that his father died a few years ago (no more specific details on his death were indicated to me). Kevin presents on initial meeting as quite a typical teenager. He walks with something of a 'teenage slouch', he dresses in quite an up-to-date teenage style, and he tends quite frequently to exhibit a form of teenage bravado, often being outspoken and sometimes tending not to follow rules too closely. He is popular amongst his classroom peers and is extremely motivated by sports, and is particularly keen on football. However, underneath the exterior, closer observation and reports from Mandy indicate that Kevin has in fact had very significant problems previously with social interaction and has very low self-confidence both socially and in relation to his

academic work. Mandy indicates that he is working on entry-level in all subjects, around two years below the average level expected for his age, except for Maths, where in the summer of 2010 he starts on roughly age appropriate GCSE work.

It becomes clear over time, via informal comments from Mandy and Donald, that Kevin had several previous failed placements in mainstream schools. Although these comments to me were not in any detail, Mandy indicated that Kevin had found social interaction in mainstream schools very difficult, and at least partly found the intense social interaction required in the schools he had attended very anxiety-provoking.

Certainly close observation of Kevin during observations, and interview reports from Mandy indicated that Kevin had significant issues with social interaction that were masked by his teenage bravado. He had sporadic angry episodes and has in the past refused to take part in exams and opted out of certain classes such as Personal, Social and Health Education (PSHE).

There is an on-going uncertainty, expressed by Mandy, about whether or not Kevin does in fact have an autism diagnosis. Mandy reports that when Kevin was experiencing his very significant difficulties in mainstream settings, his mother, desperate to find a solution for him, took him to see a psychiatrist who was, in Mandy's words, 'giving out diagnoses like confetti'. Initial observations of Kevin also tended to raise a question as to how the autism diagnosis applied to him. One of the researchers on the general project, on initially meeting with and interviewing Kevin in the autumn of 2009 (in the initial phases of the project), independently raised the question of whether he did in fact have autism. Certainly, Kevin's presentation as a typical teenager, with what seems to be quite advanced social interaction skills in the Randall School

setting with his peers and with adults, also raised this question in my mind as well. However, it should be noted that all children at Randall School must have had a psychiatric diagnosis of autism to be admitted to the school.

Kevin demonstrates nicely how, even for teachers working in special school settings, the existence of a diagnosis and issues about its interpretation can potentially be a source of uncertainty for them. Mandy discusses this uncertainty in relation to his diagnosis, as well as her assessment of his social functioning and possibilities for main school placement in the following extract from the third interview. In this, I was initially asking Mandy about her aspirations and hopes for Kevin in the future:

Joe:

Umm ... what about with Kevin? Well again, not just specifically with the phone; what things do you want...?

Mandy:

With Kevin it's acceptance of being 'here' is the main thing and possibly making the best of what he can do here, [whispering] ... he asked ... to move to the mainstream school... he really wouldn't ...

Joe:

What do you think would happen to him?

Mandy:

He'd be excluded on day three ... I am seeing if I can get him up to Mookles Secondary School to do a BTEC in P.E. [entry level technical qualification] because, again, he lives and breathes sport. They did have a boy once before but I think the whole education these days is so money-orientated it will be, 'Oh yes we'll have him, at so much a week!' Whether it's going to be out of our league, I don't know but I've just started enquiries up there to see what we can do with him up there and then he'll have his entree into mainstream but supervised and only three times a week. So he will be with boys on a level playing field because he CAN do sport. Theory he's going to find hard and his mother and I have discussed this and I've discussed it with him as well. But he's prepared to give it a go if we can get him in there. So we will see.

Joe:

Okay. Assuming that he stays here and that kind of acceptance ... do you have any strategies in terms of helping him with that, with that acceptance of where he is? I suppose it's also, presumably it's also ... an acceptance that he's got autism; is that part of it as well?

Mandy:

Umm, it's acceptance that ... he should ... one of his targets at the moment is that he should just accept praise because he doesn't do it, he doesn't accept it happily you know and boosting his confidence. According to his mother he has very little self-confidence out of school. If you see him in the class you wouldn't think that...

Joe:

Well...

Mandy:

... it's all bravado...

Joe:

It seems like bravado but I mean it does go a little bit brittle to me as well sometimes, I can see that.

Mandy:

... yes. So we need the self-confidence ... out of school ... he's a sport's ambassador at the moment and he's had to teach, along with a couple of the others, EVERY class in the school to do something and he's been fantastic with the little kids. He can be so kind and so caring and we might well go down that route with him and make him a Sports Leader or something like that so he feels some self-worth ... that has got to be built up in him I think really. I don't think the all-exam route is for him at all. He might decide later on that, 'Yes okay, I ought to do some NVQs' [another technical skills qualification] or something like that when he's 18 or 19 possibly but I don't think GCSEs are his style at all at the moment.

In the second interview, Mandy had discussed Kevin's perception of his diagnostic label, saying that 'he hates it' and that he is both very much aware of having this label of

autism, and feels very self-conscious about it. Later in the third interview, Mandy returns to this theme and we jointly reflect on whether or not he does have autism:

Mandy:

Kevin will probably wish to leave as soon as he's sixteen. Whether his Mum will be able to keep him in education or not I doubt ... he has an older brother who's working and I'm sure that's what he's after, getting out to work as soon as he can. So that means just two years to build self-esteem in him and get him to realize HOW society works. She says he's very unsure of himself when he's out and about. I don't know if we can improve on that because he's not with us to go out and about much. If he was at the Hostel then there would be all sorts of independent skills ... presumably she's doing that sort of thing with him at home?

Joe:

So his lack of confidence and self-esteem, my understanding from what you've been saying is that it's linked to him being unsure about himself.

Mandy:

I think so.

Joe:

Do you think that's part ... of his autism being unsure about the world, or is it nothing to do with his autism?

Mandy:

I really don't know. I think a lot is linked to the death of his father.

Joe:

When was that?

Mandy:

What, two years ago, three years ago ... gosh, how long has he been here? ... three years ago...

Joe:

Right.

Mandy:

And he was SO angry about that.

Joe:

Oh!

Mandy:

But I hear that his father was a bit Bipolar. Perhaps Kevin has a touch of that, I don't know. But he was such an angry young man when he came to us. Having been excluded from various places and NO social skills at all. Just all ANGER, ANGER, ANGER! Even

now you have to be careful how you tell him off; you can't just... 'You shouldn't be doing that!' It's either got to be done quietly or jokingly because ... he considers it rejection ... I'm not a psychologist and I really don't think that deeply about them [laughs] ... I don't know.

Joe:

Umm! ...but my sense from what you're saying there is that you're not ... quite sure that it's his autism or whether it's just HIM.

Mandy:

I wonder if he has autism? He has no social skills but he must have a diagnosis of it to be with us.

Joe:

Yeah. I have to tell you when ... remember Anka, who was working on the Project before, when she came initially and spent a bit of time with him, her question in her mind was, 'Why is he here, is he actually ... does he fit under the category?'

Mandy:

I can remember Donald saying, when he came, 'Look you might not think this boy's autistic but he has no social skills', so he's just accepted as that and I think it was also the time that his dad died and his mother was at the end of her tether and it was a case of, 'We've got to get him in somewhere!' And perhaps she got the diagnosis and we were

happy to accept him. It's touching wood but it's taken time ... let us hope that it continues ... we'll probably have an outburst when he comes back today. [laughs]

Joe:

Oh dear. To me ... in my case ... which is very limited ... from what I've seen ... I did get a bit of a sense of him being a bit happier. When I came in last week ... before you got there actually ... they were ... I don't know what they were doing in break, they were like playing some music in the classroom ... and when I came in he'd got two bits of tissue paper that he'd stuck in his ears and he pointed that out to me and I asked him, 'What have you got the in your ears for?' and he said, 'I don't want to listen to the music' but he was laughing about it and I thought that was quite funny.

Mandy:

He can be a bit of a clown but he doesn't know WHEN to stop. It's like the banter that starts in the classroom; he doesn't know when to stop it, which is a social skill isn't it? You know how far to take it and it's no further. But he'll just keep going.

Mandy identifies Kevin's bereavement as a possible source of his social difficulties, and flags his on-going anger at this, perhaps often sublimated into teenage bravado. There is also a sense of his lack of control and perhaps how this has at times shown up in a lack of awareness of normative social boundaries, although whether this is qualitatively different from typical adolescent boundary testing is hard to say. However, Kevin's mother's reports to Mandy about his lack of confidence when he is 'out and about' do seem unusual, and resonate with classroom

observations which do seem to uncover this very “brittle” side to a boy who, on the surface, seems like quite a normal teenager in many ways.

This extract also shows both Mandy’s uncertainty about the diagnosis, and perhaps about its relevance, as well as her commitment nevertheless to keep thinking about him and trying to help him as much as she can.

Mandy experienced significant technical problems with the use of Kevin’s smartphone. At one point, Kevin’s phone broke down, and there was a significant gap waiting for it to be replaced. Despite this, Kevin had the opportunity to use the app to try and help him with managing his behaviour at school. For example, Mandy created a prompt on the phone which reminded him at the beginning of each day of the kind of behaviour that was expected. It sought to motivate him towards this goal, with the use of images and language from the world of football. Mandy was also using the phone for a period of time as a replacement for Kevin’s contact book, reminding Kevin to text his mum at the end of the day to inform her of his day at school. Kevin has had some involvement in working with Mandy about what interventions should go on the app. Whilst Kevin did not make very extensive use of the app, observation and interview data indicated that in general he was very positively disposed towards it. It seemed, at least partially, to be perceived as cutting-edge modern technology which may have been linked in his mind to adulthood and independence, as well as looking cool and up-to-date with the latest trends. Reports from Mandy also indicated that he made significant use of other phone functions, particularly text messaging, and internet browsing, partly facilitated by linking it to his home Wi-Fi network when at home (quite an advanced technical action for a teenager at the time).

Kevin also personalized the smartphone, installing, for example, a password and an Arsenal football club image in the phone's start up procedures.

Observer stance conflict

My feelings about Mandy are ambivalent to start with. Her initial apparently negative stance towards technology, and towards the app, made me wary. There was a perception in the autumn of 2009, in my mind and in the minds of my fellow researchers and the school management that perhaps Mandy was going to be a 'problem' with the use of the app. Further, on a number of occasions during interviews and observations, I had a sense of being ignored or sidelined by Mandy.

One example is shown in my field notes for the initial part of the second observation, although there are four other similar instances which were coded to the data node 'Observer Stance Conflicts'.

I go down to class and Mandy is in her office. I say good morning and she smiles and says good morning back. She says, 'You're coming in for registration.' I say, 'Yes, that's right.' There is a pause and then Mandy says, looking at her work on the desk, 'The children will be in about five minutes. I have a few things to complete if you don't mind.' I say, 'of course, you carry on'.

In my contemporaneous annotations I write:

I have a slight? sense – linked to the pause, of wanting to be accepted by Mandy and being anxious about this. The pause holds the anxiety. There is a sense of dismissal for me (although in reality wholly legitimate) in Mandy saying, ‘if you don’t mind’.

I also note in all of these five instances that Mandy is unfailingly polite, and in fact when I am in the classroom always makes a point of welcoming me. However, it is also the case that typically in these instances; Mandy did, as in the extract above, send a signal that she was short on time and only had so much time to spend with me. In my annotations to the final writing up of the extract from the second observation I note that a likely explanation for my emotional reaction to Mandy’s arguably legitimate bracketing off of the time that she has to spend with me is that I was emotionally over-invested in the app. For me, as someone to some extent involved in implementing as well as evaluating the app, it was important. This may have made it difficult for me to accept at face value the perhaps more reality-based signal from Mandy that this was only one small aspect of her work. In the work study discussion group, when we look at the fourth observation, colleagues suggested that the countertransference signal I am picking up from Mandy about her sidelining me may also be rooted in her concern about what effect my presence is having on the dynamics of the interaction between her and the children in the classroom. They considered that based on her long experience as a teacher, she is implicitly aware that these children need *all* of her attention when she is with them, and having to deal with a stranger in the classroom – whether me or an app, poses a danger of distracting her from that primary task. This argument seemed to me to have some force, and the most compelling evidence for it is the observation of how Mandy does work with sustained close attention to the moment-to-moment

changing needs of the children she is working with. I believe we saw this previously, in Chapter 2 when we saw how she sensitively handled Angus, Steven, Piers etc. in the classroom.

This pattern is repeated across the other observations, and there is evidence for this from the category coding. Thus, in the data node 'Focus on the kids and relating to them', which captures similar instances of focused attention to children's needs in the moment-to-moment experience in the classroom, there are 6 other instances involving Mandy from across the other observations.

Reflecting on this now, it makes sense that Mandy's focus is on placing her attention on the children, an activity which no doubt takes considerable energy on her part. In this context, it seems reasonable that she considers the introduction of strangers, whether technological or human, into her classroom, as a potential source of distraction for both her and her, in the end, very needy students.

Working without theoretical knowledge?

When asked about her approach to working with children with autism, Mandy refers to the school's modified TEACCH approach to working with autism, but highlights structure as being the most important part of this for her, as in this extract from the first interview.

Mandy:

For structure ... the low arousal ... the empathy with the child and always the positive attitude, so that's the school's approach but, really for me, it's the STRUCTURE. Yes P.E. is NOT a low-arousal...

Joe:

No ... no.

Mandy:

I've always said that but the child I've just had to calm down now while he was yelling and screaming at me, I didn't say a word. I just blocked the doorway and when he'd calmed [down] we talked ... very calmly ... but it's waiting that half an hour when he's yelling and screaming at you. It's my 'free time' [laughing sarcastically]. But you need time with these kids, you really do. Yeah I think structure is the MOST important thing with these children but the school's approach is the whole ethos of the whole thing.

Subsumed within the concept of structure, there also seems to be a stress for Mandy on giving them time. This may mean processing time, i.e. time to think through instructions or, as in this extract, time to process feelings. In the data node "They need time to process", a sub node of 'Teacher conceptualization of and ways of working with children with autism', there are eight source references, six from other teachers and two from Mandy. One of these references for Mandy is from the extract shown above and the second is from the fourth interview, which seems to confirm that in Mandy's thinking giving them time means both thinking and feeling time:

Mandy:

The patience is one. Give ... it's, it's not only patience to give them time to process what they're doing or what you have asked them to do, but for them also to come to terms with what you're asking them to do.

Joe:

Mhm.

Mandy:

Erm if you take getting on the bus scenario, it's a case of well okay we'll stand there for two minutes and just wait, hoping that those who are already on the bus don't start getting agitated, rather than saying, 'Come on, come on' all the time. No, just wait and see what happens and sometimes that works.

However, whereas John made fairly significant references to quasi-cognitive accounts of autism in reflecting on his thinking, such use of explicit theoretical knowledge is very much absent for Mandy. In fact, it seems possible that Mandy has little interest in such theoretical knowledge per se, as is indicated in the following extract from the second interview:

Joe:

And related to that question I wanted to ask ... I know that the children come with quite a lot of diagnostic information when they come to the school; is that something that you make use of?

Mandy:

Oh yeah! [immediate positive response] ... yes ... especially in P.E. because you'll have ones that don't like to be touched or ones that don't like to change or don't like the physical aspect of things ... which you can work around IF you know it. If you DON'T

know it, if you haven't read all this information on them ... I mean it might even be loud noises and things like that ... if you're aware then you can treat them more as an individual APPROPRIATE to THEM ... yes, I always try and get all the information that comes in.

Joe:

What about a sub-diagnosis like you know, so they've been diagnosed with Asperger's Syndrome, is that something that you think means particular things?

Mandy:

Umm, I would assume, if they're diagnosed with Asperger's, they are more high-functioning than the rest of them, yep!

Here, Mandy shows what might be termed a functional interest in knowing about the capabilities and limitations of individual children coming in to her class. Yet her response to my question about Asperger's Syndrome indicates what might be termed an absence of theoretical knowledge. Most children at Randall school are high functioning, so it would not seem likely that an Asperger's diagnosis in itself would indicate that much about level of functioning. I felt uncomfortable when Mandy gave this answer and moved on quickly. This feeling may have been related to my concern on Mandy's behalf that she might feel embarrassed, and perhaps I was also picking up on her anxiety about not knowing enough. Given my perceived role as the expert from a university, who in the mind of the teachers might be thought to know lots about autism, it would be reasonable for Mandy to experience such anxiety. However, in the third interview,

Mandy indicates that she is ‘not a psychologist and doesn’t think about them too deeply’. Later in the same interview in a discussion about how often Mandy refers queries she has about the children to the Educational Psychology service, she reports that the last time she did so was four years ago. It does, therefore, seem reasonable to conclude that theoretical knowledge about autism is not something that Mandy places too much stress on.

However, absence of explicit thinking does not necessarily imply lack of implicit thinking, or thinking which is not yet easily put in to language (especially when the interviewee may to some extent be intimidated by the academic qualifications of the interviewer). In Mandy’s own terms, perhaps she does in fact think very deeply about them.

This is illustrated quite well in the following extract from the fourth interview, in which I refer to my observation of Kevin’s swaggering, outspoken manner in the third and fourth observations, including his florid description of how one of his classmates threw a smartphone in their shared taxi to school a few weeks ago.

Joe:

Erm in the last interview you were saying about him ... the ... we were thinking about you know what are ... what are the issues that he’s got that one of the things you said that he’s got, when he.... And I’ve seen in the classroom, he’ll kind of sometimes engage in this kind of banter in the classroom and he kind of goes too far and he doesn’t know ...

Mandy:

Yeah.

Joe:

He doesn't know when, when to stop.

Mandy:

Mm.

Joe:

Erm so I wanted to ask you a bit more about that er erm I and I was wondering what you thought was going on in his mind and, and that ...

Mandy:

I think he's not too good on social boundaries.

Joe:

Mhm.

Mandy:

Erm and possibly if he's bored and he starts this banter and he gets others involved, he's the centre of attention and I, I, I'm not a psychoanalyst.

Joe:

Of course.

Mandy:

And he enjoys the centre of attention?

Joe:

Yeah.

Mandy:

And he gets others involved and it's fun and school should be fun, but you know sometimes you have to get down to work it's not always fun, but sometimes it definitely should be fun and this is possibly why he does it. It's nowhere near as much as [he] used to do.

Joe:

Right, he's getting better with it.

Mandy:

But we are ... as a class we are fairly relaxed until things go wrong erm and I don't mind in the sort of quarter of an hour at the end of the day or the quarter of an hour that they've just had for break time if this sort of banter goes on, so long as it doesn't go too far and in a way if it does go on and then you teach them where the boundaries are, that I think that's now gone far enough, you know it ... it'll slowly drip in that this is as far as you

take it, you don't take it any further than that.

Joe:

And do you think it's been slowly dripping in with him?

Mandy:

I think so, because he is changing as a character, we don't see this banter as much, part of that might be that a pupil has left the class or who was quite a stirrer.

Joe:

Mhm.

Mandy:

And the class as a class are a lot calmer than they were.

Joe:

Mhm.

Mandy:

Erm that might be part of it, it might be that he, he is learning that you don't do this sort of thing. You learn, you forget, you learn, you forget. Erm you know there are times

when he obviously does forget, but all, all skills, all learning comes really, really slowly to them. So yeah, I think he ... he's getting there, I'd like to think he was getting there.

Joe:

Mm. Er I mean that kind of behaviour and obviously you, you know you have a better sense, but when I had observed him doing that ...it's to me, it's kind of... I mean it was clearly very you know... it's not the kind of behaviour you want from children in the...in the classroom, but to me it's kind of seeing him in some way quite typical, you know you, you often will see teenagers behaving in that way. I mean is it...is it...to me it's kind of you know just seen to be typical ... you could interpret it as typical teenage behaviour of a teenager who wants to be the centre of attention.

Mandy:

Mm, but it's not the sort of thing as you say they would do in the classroom, they would keep it for outside and amongst their friends wouldn't they? This is where they ...

Joe:

...tell me

Mandy:

... don't understand I think.

Joe:

Right, uh-huh.

Mandy:

That what, what you do with your mates you don't do in a different situation.

Joe:

Right.

Mandy:

That there are formal settings and there are your casual mate settings as it were and I don't think they can transpose the two, that's part of it I'm sure.

In this exploration, Mandy again eschews giving a privileged place to theoretical knowledge, 'I'm not a psychoanalyst', perhaps meaning, 'I'm not interested in all that psychobabble'. Yet Mandy is clearly thinking very hard here about what is going on with Kevin, what effect her influence is having on him, and whether his behaviour is or is not normal. She gives a sophisticated explanation of Kevin's inability to tell the difference between formal and informal settings, and broadens this to a general rule about children with autism, which aligns with standard psychological accounts based on impairment in theory of mind (see for example Györi 2006).

When reviewing this extract from the transcript, it evokes in me a feeling of uncertainty. It is striking in its tentative nature, both for me and Mandy. There are lots of pauses, and 'Ers' and 'Mms'. The transcript seems to suggest a significant amount of uncertainty in Mandy's thinking.

Yet it is also noticeable that she stays with it, when I challenge her about whether Kevin's behaviour is typical or not, she is willing to explore this. It mirrors, for me, her sustained, calm attention to the children in the moment-to-moment of teaching which we saw with Mandy in Chapter 2. One of the striking things about Mandy in most of the observations is how calm she usually is, even when quite difficult and challenging things are going on in the classroom. We might consider that this calmness reflects her ability to stay with uncertainty long enough for the 'right' resolution, the selected fact, to become apparent. I would argue that there is evidence of the same process of tolerating uncertainty in this extract. The interview responses indicate that Mandy does, of course, think cognitively about what is going on for Kevin. Yet the combination of observation and interview data suggests how she balances between them. 'I'm not a psychoanalyst' could also be interpreted as being very close to Bion's directive to guard against the dangers of memory and desire – desire for knowledge and certainty. As her responses indicate, there is still a place for theory and cognitive reasoning, but observation of Mandy, partially based on my countertransference response, suggest that her praxis in the classroom is closer to being based on a Bionian epistemology, where the use of theory and knowledge is mediated first and foremost by what is primarily known from the sustained attention of intersubjective relationship. This can be seen even more explicitly in how Mandy works with Kevin in relation to the app.

Productive Uncertainty– containing Kevin

Mandy was initially highly sceptical of the app. She was quite explicit in the autumn of 2009 in indicating that she saw it as a distraction and something that was being imposed on her, as in the first interview:

Joe:

How do you think it's going to fit in with what you're doing already in the classroom?

Mandy:

[immediate negative? response] Awkwardly!

Joe:

Can you expand on that?

Mandy:

Time for me to be able to put it on the phone. The fact that if two kids have the phone and nobody else does it's got to be approached will ALL the children in whatever classes they're in, who have phones, that ... 'These two have it and nobody else does at the moment and this is WHY they have them!'

This scepticism and sense of being put upon did surface throughout the implementation, as in the fourth interview, when I am asking Mandy about how she thinks the app might be improved:

Joe:

If you hadn't had that particular problem and let's say it would let you go from screen to screen without you having to come out and then go back in again, do you think ... I just

wondered what your sense was, of how much work is involved ... is it very onerous or is it a bit of work or ..?

Mandy:

It's more work than I think we were expecting especially as we weren't consulted in the first place as to whether we were happy to do this or not and it's not as though we're given any time to do it; it's slotted in when you can, which is why I took it home and did it over the weekend.

However, what is telling in this response is Mandy's declaration that she took it home over the weekend. Even in the initial interviews, despite her scepticism and worries about the app and how it would work out, she still was open to seeing how it might be used. In the first interview, after saying, somewhat sarcastically, that she wished she had a magic wand to give her 26 hours a day so that she could fit the app in, she goes on to talk cogently about how she is going to 'find time to play with the thing so I can use it to the children's advantage'. And she was true to her word. Even though she experienced significant technical problems, apart perhaps from Lynne, across the project Mandy was the teacher who expended the greatest effort on developing interventions on the app and working with Kevin and Marlin to see how they could use it effectively. This orientation persisted even when considerable operational issues continued to occur in relation to the use of the app, most significantly Kevin's smartphone breaking down in late May, followed by a long wait for the school to arrange to have it fixed. In this context, we can see how Mandy related to the app, at the end of the implementation in this extract from later in the fourth observation:

Mandy then comes in and says that she's going to interrupt Kevin for a while to talk about his smartphone. Kevin smiles weakly and looks rather unsure. Mandy comes and sits boldly down right next to him. Mandy smiles and asks him brightly how long he has not had his phone for. – 'it's been about a month?' Kevin nods. They discuss plans being made to repair or replace the phone Mandy says that she did actually talk to the two men working on it and 'they did actually say that they had got it working – briefly...'. Mandy then asks Kevin what they should put on it when they get the phone back? In this sequence, Kevin tends to give monosyllabic, although not uninterested answers and shrugs a lot. He has a coy smile and seems, as generally across this observation, to be quite subdued. There is, in my perception, more explicitly a sense of vulnerability about him. He glances at me, quite nervously, perhaps being aware of being observed, a few times during this sequence. He speaks quite softly and at times his responses to Mandy are hard to hear. Mandy asks him how many reward points he had on the phone? Her tone continues to be bright, but also, as before in this observation, modulated in response to Kevin's responses – softer when he is softer and anxious, but also leading – as in, said brightly, 'You had lots of reward points in there, didn't you?' Kevin says that it was about 20. Mandy says, 'Right, so you must have been using it every morning?' and Kevin nods, looking quite pleased. Mandy then asks Kevin how much he personalized his phone, prefacing this with an aside to me, smiling, 'this is for Joe's benefit'. Kevin shrugs and doesn't say anything – he glances down at the floor. Mandy follows up rapidly with, 'You put loads [emphasis] on there', Kevin nods and says, 'bit of music...pictures...'. I ask, from across the table, 'what music did you put on, Kevin?'

Mandy replies and says, 'lots of music'. I repeat, 'what..Kevin?' He looks coy and looks down. He glances at Mandy who smiles at him and he says, 'I dunno.....just like any music that I like' in a voice that suggests, 'why expect me to say anything else?' I smile. Mandy says, encouragingly, 'come on...what about the screen saver?' Kevin nods, looking pleased now. Mandy follows up with, 'you had a password on it?' and he nods again and then says. 'Oh yeah.. I had the Chelsea badge on the back'. Mandy says, to Kevin, 'I mean you personalized it quite a lot...you really did, but it would be good if you actually had the SIM card back as then you could text...in fact it was promised when we came back three or four weeks ago and it hasn't happened...bit disappointing'. Kevin nods again. Mandy then asks whether he has done any other things in a soft tone, 'What other things?' Kevin says, almost muttering, 'Internet'. Mandy follows up brightly with, 'what do you find worth doing on the internet?' Kevin shrugs and says, 'look up the news!' Mandy says slightly tentatively, 'so when it did have internet on it you used it as a tool to look up facts and figures about things' and Kevin nods. Mandy continues, smiling, 'about football..which is your love we all know that'. Kevin seems to be in agreement.

Mandy says that she will chase them up again (about getting the phone back) and that 'it would be great [emphasis] to have it back.'

Mandy then says in aside to me, 'Ok do you want any more than that or have we done our stuff?' I nod assent and Mandy goes 'Wahay!'; and I say, rather languidly, 'Thank you Mandy..thank you very much'.

Then, in another aside to me, Mandy repeats that the ‘computer guys’ got it working but only very briefly, sounding quite frustrated.

In the work study group’s review of this part of the observation, colleagues suggest that Kevin is in fact more engaged with the app than the other children in the study. Although Mandy really has to pull it out of him, it is clear that he likes the smartphone a lot, that he is attached to it in some emotional sense, and that he is upset that it is broken. We also see here more clearly what lies behind his adolescent bravado. I have a clear feeling when observing him, which I would categorise as a countertransference response, of emotional vulnerability. He is tentative and anxious, and quite strikingly relies on Mandy to provide him with a source of stability in the encounter, a role which she fulfils very well. Her calm, balanced approach helps to contain his anxieties, allowing him the space to think. It is an example of productive uncertainty at play in the classroom.

Work study colleagues plausibly suggested that Kevin was very much aware of and affected by my presence. When I ask him a direct question, he is coy and looks down – not the response of a confident teenager to what is on the face of it an innocuous question. I’m an unknown object in his mind and clearly a source of anxiety. Yet with Mandy’s containment, Kevin is able to moderate this anxiety and reveal what he really feels about the phone.

This exchange between Mandy and Kevin also further illuminates the potential power of a modified infant observation approach to interpretivist research. In a typical ethnographic approach I might have asked Kevin directly what he thought about the smartphone. It is quite likely that he would have, projecting his anxiety associated with being pressed by a stranger, said something like 'It's rubbish' and that would have been that. Yet the power of this technique is that it allows us to emotionally dig under the surface and get closer to the emotional reality of the actors. My countertransference response 'in the moment', a feeling of vulnerability when observing Kevin, signalled that there was something else going on here. Further, the use of the work study group as an auxiliary ego, in this instance at least, allowed the uncovering of what may have been going on for the 'Mandy-Kevin dyad' emotionally 'in the moment'.

PENNY

We were first introduced to Penny in Chapter 3 where her experience in the classroom served as an exemplar of teacher uncertainty about working with children with special needs, something we have seen much of in the first four cases.

Current Role and Career Background

Penny is originally from Brazil. After completing an undergraduate teacher education course specializing in humanities, she worked as a volunteer at a centre for adults with autism run by a charitable organization. She worked there for a few months and then heard about a job with a Portuguese family living in the UK, who were looking for someone to help care for their son with autism. After working there for two years she then came to work at Randall school, initially as a one-to-one support worker but then soon after in a teaching position. Penny has taught different areas of the curriculum, focusing mainly on geography and history but also teaching English, PSHE and work related learning. In the last few years she has started teaching modern languages, initially French and now Portuguese. She is also a form teacher for a mixed Year 8/9 class (ages 12 to 14).

When asked, in the initial interview, what her reasons were for starting to work with children with autism, Penny suggests that it was something that she fell or drifted into, and that she enjoyed it, so decided to carry on with it. She does report that during her degree studies she worked at summer camps with children with cerebral palsy, and following that she was offered the job working with a family with a child with autism.

Key Information Sources for Penny

1st Interview 14 October 2009

1st Observation 24 November 2009

2nd Observation 17 March 2010

3rd Observation 19 March 2010

2nd Interview 19 April 2010

4th Observation 24 May 2010

3rd Interview 18 June 2010

5th Observation 29 June 2010

6th Observation 6 July 2010

4th Interview 8 July 2010

A number of observations and interviews needed to be rescheduled due to absence due to sickness etc., which partly explains the slightly unusual pattern of observations and interviews indicated.

Penny's Children

Penny had three children using the app, but the presentation of the case focuses on Oscar, who we were initially introduced to in Chapter 3, as well as Luke, one of Oscar's classmates not using the app.

Oscar

Oscar was born in 1996, making him 13/14 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 116, a VQ of 126, and a clinical psychiatric diagnosis on entry to the school of autism, with no co-morbid diagnoses. He lives at home with his parents and attends school during the weekdays. Penny reports that Oscar does well in his school work and is studying at a generally age-appropriate level, with an expectation he will be starting his GCSE programme in due course. He is friendly and sociable with other children. However he has difficulties with executing sequenced tasks and organizing himself, particularly in regards to life skills such as getting up in the morning, going to bed in the evening, and being organized in school. Penny also reports that he has a lively interest in technology.

Luke

Luke was also born in 1996, making him 13/14 during the 2009/10 app implementation period. He had a full IQ measured on WISC-IV of 102, a VQ of 106, and a clinical psychiatric diagnosis on entry to the school of autism, with no co-morbid diagnoses. He lives at home with his parents and attends school during the weekdays. As he was not using the app, Penny did not report specifically on Luke's academic or social skills as part of the study. However, my observations

of him in class indicated that he was a pleasant, and generally cheerful and eager to please, although somewhat hesitant to join in with the rest of the class.

Productive Uncertainty

As we saw in Chapter 3, Penny comes across as a competent and caring teacher who is well tuned in to the needs of the children she is working with. This can also be seen in the following extract from the sixth observation, which takes place towards the end of the academic year, mainly during the morning registration period. Luke arrives about 10 minutes late, just as everyone is settling down to start the day. He arrives accompanied by two teaching assistants.

Then Luke arrives. The two assistants are holding him tightly by the arms on either side. He has his head down and has a pained expression. They stand opposite Penny near the entrance. Penny is also standing up and has that calm but expectant. ‘what’s coming next?’ expression again. One of the assistants holding Luke says, in a tone tinged with anger, ‘Perhaps you should tell Penny what you’ve been done...kicking...hitting...and trying to bite’. Luke looks down at the ground. His lips are pursed and at an angle. He looks almost quizzical, as though to say, ‘what’s going on with me now?’, and also somewhat ashamed. Penny has a calm expression and says very calmly, in contrast to the assistant, with a tone of teacherly disapproval, ‘Oh Luke...’, then she picks up a laminated card off the first table and says, ‘would you like a sticker today?’ Luke nods and Penny says, ‘you have to be...you have to be good...’. She then tells Luke to sit down and one of the assistants sits him down at the front table and sits next to him. Penny sits down and doesn’t take much more obvious attention of Luke, and switches gear to start

the registration period. Her lips purse and she has a more dour expression, and she sits up straighter in her chair. Her demeanour suggests, 'Right. Now we're ready for business'. Penny starts the register, saying, 'Good Morning' to each of the children, prefaced by their name, in turn in an authoritative tone. Penny then goes through the lunch menu, checking what options the children want.

The contrast between the teaching assistants' demeanour and actions, and those of Penny is quite striking. She doesn't respond, as quite a few teachers might have done, to the assistant's invitation to hear about what Luke had been doing. She judges that Luke is overwhelmed by his feelings at that point, and supports him in calming down by offering him a sticker, as well as remaining very calm in contrast to the agitated state of both Luke and the assistants, although it is relevant to note that it is the assistants who have had to drag him into the classroom and not Penny. Her exclamation of 'Oh Luke', in a calm voice of 'teacherly disapproval', signals that Penny is in control of the situation, even if no one else is. She also verbalizes both what Luke needs to do right at that moment – 'you have to be good', giving a signal to both Luke and his classmates that in the classroom there are expectations and boundaries for behaviour. Penny judges that Luke needs some space to regain his emotional composure, and by purposefully ignoring him creates that space, at the same time as signalling, just from her 'ready for business' tone and body language to the class as a whole that she has dealt with Luke and that he is fine, just as they will be fine too, and that now they will turn to their primary task of learning.

Penny's close sensitivity to the 'moment-to-moment' needs of the children, and her ability to contain the very strong emotions emanating from Luke in this vignette is very similar to Mandy.

There is evidence to support this from the category coding. The data node 'Focus on the kids and Relating to them', which included the source extract above, has four source references from Mandy and three source references from Penny. For both teachers, in their interactions with the children, there is something resonant with the Bionion idea that by tolerating uncertainty and attending to the experience of intersubjective relationship, the selected fact about what the analysand (or the child)'s experience is can arise, in this case for the teacher.

In the field notes to the initial write up, I wrote that Penny came across as 'very competent and caring, tuned in to their needs'. When I revise the write up after listening to the audio tape, I was trying to remember how Penny had spoken to Luke. I was unsure whether there was a tinge of annoyance in her voice. On listening to the audio, I made a further annotation noting that 'I am struck by how fluently Penny handled the situation', and that 'there is no trace of sullenness or hostility in her voice when speaking to Luke'.

It could be argued that my unsure recollection of sullenness in Penny's voice was a countertransference response, that in fact, in phantasy, she really was annoyed with Luke. This could be the case, and it would be possible to look at all the variations between the initial write up and the recorded audio, considering if they were in fact examples of phantastical misremembering. In considering this, I am reminded of Joanne Brown's admonitions about the dangers of 'wild analysis', and also of the wealth of cognitive research, as well as perhaps common sense knowledge, that suggests that quite often we just misremember. So, at least in this instance, I would argue that the audio represents what really went on more accurately than my misremembering. I think that the case study material presented so far does demonstrate the

potential to use countertransference as a tool to investigate the emotional states of the actors in a research field. However, this particular case of misremembering also shows that we need to be careful, perhaps very careful, about how we use this tool. Reference to audio recording is, I contend, as demonstrated in this example, one useful way of validating the use of countertransference as a research tool.

Balancing theoretical and tacit knowledge

In common with the other teachers, Penny's interview responses show how she is concerned about the significance of the diagnosis to her practice. Penny initially discusses this in relation to Oscar in the second interview.

Joe:

You said about...also you said in the last interview that you hadn't related those to...you hadn't had any specialist training?

Penny:

No.

Joe:

I mean do you... is that something... would that, would that... do you think that that's something that would help with that?

Penny:

I can imagine, but I don't know, that cannot be bad, but no I don't have any training apart from my qualification of teacher. Um but as teacher in mainstream schools not special school. Obviously my 12 years experience yes but apart of that nothing else, well training, tiny things, but not specific about autism. No.

Joe:

Do you think it might help?

Penny:

Could be yes, yes I can imagine.

Joe:

But you don't sound quite, you don't sound quite sure.

Penny:

Well you know, I see all these people all these speech therapists with lots of degrees, and stuff like that in autism and I can see Donald with his psychology, all this kind of things, and at the end of the day they cannot help me they... it doesn't look like they can help me, I am not sure this training will help me much neither.

Joe:

Okay.

Penny:

But I don't know. [laughter] I don't know.

Joe:

I mean I have to say that, you know, I think from all the teachers that I've have... you know I've been observing quite a lot in the classrooms and I think, you know, the team here and I think you've, you've got a very good handle actually on working with these children I mean I think... but I think just sometimes it is difficult...you know there is no... sometimes there isn't any obvious...easy answer. Yeah, kind of linked to that, I think again kind of thinking about Oscar, you said as well that 'we have to understand his interpretations'...

Penny:

Well we have to understand... I am not sure that is the right...understand his interpretation, mainly he interprets things in very different way than the rest of us, for example yesterday for example, yesterday for some reason he hurt his back then after lunch he couldn't move, or he say he couldn't move and then he was sat down in my class in these green chairs, comfy chairs there he was sitting on there.Andy [one of the other children], poor thing, he went to ask him, 'how are you Oscar?' and Oscar snapped at him and spoke to him very nastily um and then obviously Andy was upset about it. 'Oh well never mind', he [Andy] went. Today I asked him, 'say, Oscar what happened yesterday why you were not very kind to Andy?' 'Oh because he poke my back' [Oscar replies] and there was three members of staff there and none of them, the three members I have asked them, they say no he didn't, he didn't touch him, he wasn't even close to him.

These are his interpretation on why he was upset with Andy you know...Um I'm not sure he recognized that as a lie. I'm not sure if, if it's really he believed that this happened or just excuse for him because um yesterday and Monday we had this sponsor run... um he's quite competitive boy... um and Dwight he did more laps than him, and then Oscar he say, 'oh I couldn't win because my back was hurting', and then from there everything [Oscar's subsequent feelings] just came. Then he could be upset really because he didn't do as many laps like he wanted to do. He could be upset because maybe yes his back was really hurting or it's just he's natural dislike for Andy but he... this is... he create all this kind of thing of things he interpret things in this way or... I'm, I'm not sure his whole interpretation or how they call it but he's see these things in very different way than the rest of people had to say.

Joe:

And do you think that's... is that part... do you think that's part of his autism – related to his condition?

Penny:

Well mum say it is.

Joe:

Mum says it is?

Penny:

Yes. Um I'm not sure...

Joe: What do you think?

Penny:

Um I think he's just a very competitive boy and he doesn't want to recognize when he cannot do... achieve what he want to achieve. I don't think he's able and maybe this could be part of his autism. He doesn't... he isn't able to see what is really his excuses or [what his] abilities are. And he feels, because mum tried to err, err make him...grow his self esteem, [she] has been saying you're the best, you're the best, you're the best and then he believe he's the best when he maybe doesn't recognize is, I'm sorry, but you're not because you are scared, for whatever is the reason.. He is very good but not the best, he had to be the best.

Joe:

Yeah and I remember you, you were saying about this before...your view of how mum influences him. So in your mind... in your view then certainly this kind of behaviour it's not necessarily... my sense is that it's not necessarily to do with this autism it's mainly something to do just with his family dynamics?

Penny:

Yeah I would think so, yeah I would say so...but at the same time I... it could be maybe that link to the autism or not I don't know, [it] is his incapacity to see really where he

[is], because every time he cannot achieve what he think he should achieve there is always excuse. There is something, for example yesterday the excuse is my back was hurting... um it's I cannot play football or the match didn't went right, it's because the rest of the team didn't play properly, but never ever his fault. He's not say, 'well I'm rubbish goalkeeper', he never ever would say something like that or 'I did something wrong in English or maths whenever, well maybe because my story was [not] interesting', no it's 'oh I was very tired, I didn't do it, I didn't bother, you know, it's this kind... I, I know any other kids maybe would do the same come with the same reaction you know.

Joe:

You know, very difficult for them to admit that they've got any problems.

Penny:

This is what I said, I'm not sure this is, this is because mum or because he's err well he's just being a boy [laughter] do you know what I... mmm...he doesn't want to recognize that, then maybe it is not up to them, it's just maybe here...mmm...hmm.

What comes across here for me is Penny's sense of being quite lost in how to help them, perhaps one of the most explicit and obvious avowal of ongoing uncertainty made by any of the teachers in the study. Much of the dialogue is hesitant and what Penny is trying to say is quite unclear in places. Although this might be partially attributed to the fact that English is not Penny's first language, she is of course a competent speaker of English, and I feel that this lack of clarity reflects her considerable uncertainty about Oscar. In

particular, she is considerably uncertain about what place the autism diagnosis plays in how Oscar acts, as well in the ability of experts to tell her anything useful about the children. In the second interview, I go on to probe further as to how Penny thinks about the relationship between theoretical and tacit knowledge in her work:

Joe:

Okay, okay, okay alright well linked to that you did um kind of linked to that I was... one thing I was going to ask you is in the last session we talked about diagnostic information and so I was asking you like you know when then come into the school they have all these reports and things, so you said about you know that could be useful some times?

Penny:

Yes this is what I said that this is what I know about the kids when they come here first time. I know about assessments done in previous schools or, or assignments from um the psychologists or whenever it's from err when they came before they came to this school plus observations that Nigella um mainly Nigella [Speech and Language Therapist] does with the students before they come to the school, to this school, then look at the information, it's like, I have to say, sometime it just rarely, usually um just 20% is useful, because sometime it hasn't been updated for a long time or these kids have been off of the school for a long time and many things happen between that time and the time the report was written and now they really will... there are certain things err you can take from them and then the rest I have to say is just, you know, just looking, observing and giving some time to... for you to learn about the kids really ... these kids mainly too they

behave so different ways, and [in] certain different environments that maybe what the psychologist say is not really what is happening in the school and other environments.

Joe:

Sure but you, but you said it can be helpful sometimes, I was gonna ask do you... could you think of an example where, where it was helpful...where you thought oh that was really useful to know?

Penny:

Yeah but I said in majority has been helpful but maybe just really, really useful maybe just 20, 30, 40% of the actual report.

Joe:

No, no I, sure, sure I understand but I just wonder if you could... can you tell me about something specific?

Penny:

Oh no I cannot, I cannot, I cannot. I mean I cannot remember now any...

This response has some resonances with Mary, when she is discussing the use she makes of specialist colleagues in the school. It's almost like both teachers know that there is an expectation that they should be doing this, but that they really find it hard to remember any time that they actually did. It's probably important to differentiate two positions here. One of which,

which is indeed present in the literature on professional and teacher thinking, as discussed in Chapters 2 and 3, that theoretical knowledge is in fact not very useful to teachers. Neither Schön, nor Bion, however, can be taken in any reasonable way to be suggesting that knowledge is not necessary. Neither a socio-cultural Schön nor a cognitive Schön can be considered as suggesting that professionals should not know something about their profession, that there should not, for example, for an engineer, be useful things about mathematics, physics, metallurgy, that might come in handy when building a bridge. I doubt that Schön, nor his interpreters, whatever their theoretical position, would suggest that doctors would not be better doctors for knowing something about anatomy, physiology, chemistry, and a host of other things. Bion certainly was not suggesting that psychoanalysts would be better psycho-analysts by knowing nothing about psychoanalytical theory. What Bion was saying is that the analyst needs to use the theory, and ‘dream with it’, in the session, so that its application to the analysand, ‘in the moment’, can somehow approximate to the ‘O’, to the reality of the analysand and their needs then. For Bion, theoretical knowledge and tacit knowledge are in a very close dialectic. The theory’s use is then something akin both to the generative potential of myth (and messiah), and the recognition of common features, constant conjunctions, in what becomes known about the analysand, so that the myth and the reality can be joined together, through the emergence of the selected fact, in pursuit of truth and growth. This is an uncertain process. The analyst and the analysand, never quite know what is myth and what is ‘scientific’, but they get further by sticking with the uncertainty than by rushing to certainties. In this way, uncertainty becomes generative and productive. I think that, perhaps in bold contrast to Schön’s key thesis about the problems of technical rationality, it is fair to argue that Bion’s ideas perhaps do not hold so well when applied

to bridges. The constant conjunction of a bridge is, Bollas notwithstanding, from most useful perspectives a pretty fixed thing. When applied to human bodies and medicine, we I think have to consider our stance in respect to the relationship between mind and body when considering where physical medicine sits in the continuum between engineer and psychoanalyst, just as we might conjecture where the tightrope walker sits. For the caring professions, however, where the subject matter is people and their lives and their emotions and their phantasies, the application seems much clearer. In fact, we might turn Schön on his head, and suggest that the caring professions are the interesting ones, the ones where the pain of uncertainty can yield to productive uncertainty, that life lived grappling with this is life lived with fear, with anxiety, but also with reality, or the chance at least of grasping something close to it. Nevertheless, if as Bion argues, in *Attention and Interpretation*, that theoretical knowledge has a central place in practice, then the same should be true if we apply his mode of thinking to professional practice in the caring services. We might, then, from this stance, consider Penny and Mandy as lacking something. The empirical evidence suggests fairly clearly that they do not have, in contrast certainly to John, many theories to make use of. We could then argue that the dream-work they can engage with is perhaps not as rich as someone whose unconscious mind has models and myths and theories contained within it. After all, the theory, the expert opinion, might fit, albeit imperfectly, albeit always with an unsaturated component, albeit only for that lesson, and perhaps not in the next, but still it might fit, and the teacher who can make use of theory and expert knowledge flexibly is more likely to come closer to what it is that the child needs. Productive uncertainty needs fuel, and fuel that is grounded in both intersubjective relationship and the development of theory. From this perspective, the idea that tacit knowledge is simply

knowledge not put in to language yet, and that such unarticulated knowledge is good enough for our patients, or our children, whilst glibly seductive, seems in the end impoverished. Putting it another way, yes Penny and Mary were good teachers, and their ability to contain both their own anxieties and those of their children was an invaluable strength, but they would have been even better teachers if they had greater access to theoretical knowledge about autism. In a way, this is similar to the argument that I made above about John and Dawn. We need teachers who can combine the Papa Freud of John with the Mama Klein of Penny and Mandy.

SUMMARY

In this chapter, I have aimed to demonstrate both how productive uncertainty is something that we can see in play in real classrooms with real teachers, and that a modified infant observation approach can be used as a way of investigating this. I think that the possibility for countertransference responses to be used as an investigative tool to tell us about the emotionality of the actors could be seen across the cases, particularly in the first four.

The empirical data has also demonstrated, I contend, the ways in which the innovations that I introduced in to the use of a modified infant observation technique, can serve to bolster the validity of the conclusions drawn, and act as a bulwark against the possible dangers of ‘wild analysis’ in the use of the countertransference. I will further review the ‘effectiveness’ of the techniques used and implications for further research in the final chapter.