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Learning to be: on the observation of a premature baby

by Ross A. Lazar, Christine Röpke and
Gisela Ermann, Munich, Germany

Introduction (Ross Lazar)

In presenting this paper it is our aim to achieve a number of things. Firstly, we would like to share with you both the excitement and the pain, the curiosity and the fear, which we have found to be inevitable components of the observation of premature babies. It is also our aim to present, for your scientific scrutiny and appraisal, the most significant experiences and results we have gleaned from following this observation process over the past several months. From the very first we have conceived of it as more than just an infant observation whose subject is a premature baby, but explicitly as a project in participant observational research into prematurity. Thus, we address you not only as fellow infant observers, but as a community of scholars, all of whom are engaged in this particular form of scientific research into infantile life. We understand ourselves as participating in the kind of research effort conceived of and clearly described by Michael Rustin in the third chapter of *Closely Observed Infants* and thus consider you to be our relevant scientific community, the one which shares the same methods, biases and concerns. I mention this now, because implicit as this type of research stance may have been to many of us in the past, I think it has now become important to spell it out. It seems clear that this shift in emphasis has become increasingly important in this work. For me it more accurately reflects the inherent approach I believe we do in fact take to this work, and indeed, have been taking for some time. With your help, this exchange should take place in a spirit of true scientific endeavour and enquiry, and with any luck will lead us to the discovery of a bit more truth concerning the conditions of life, the experiences and, in particular, the beginnings of a sense of being, of mental life and of thought processes in pre-term infants.

We have planned to pursue these aims in four parts:

Some introductory remarks (RAL) on our frame of reference and some of the many problems and questions it has raised thus far.

- (1) The Observation itself: Baby Tommy (CR)
- (2) The Impact of the Observation of Premature Infants on the Seminar Participants and its Implications for Learning (GE)

- (3) **Some Concluding Remarks:** Briefly outlining the beginnings of our Premature Infant Observation Project: reflections on the process, some tentative conclusions and more questions for study (RAL).

Within this framework it is our intention to address the central problems of being (and staying) alive, becoming a person, and beginning to think. That is, we propose to explore the earliest beginnings of 'life on earth' where 'to be or not to be' really is the ultimate question. And within this general context, we have particularly tried to discern the earliest stages in the development of an inner space for thinking.

Learning to be

As a matter of course, we expect babies born at term to be human beings fully capable of sustaining basic life processes, that is, creatures equipped by nature with the ability simply to be. But premature babies are not so equipped. Premature babies are not equipped to live in the external environment awaiting them outside the protection and security of the womb. Rather, they are in constant need of help from artificial support systems to sustain their existence. They need assistance in at least some, and often all of their vital systems: in keeping warm, in breathing, in taking in nourishment, in the elimination of waste, and in exercising control over life-sustaining homeostasis. And, psychologically, they need to learn what otherwise might appear to be the most 'natural' thing of all...they need to learn to be.

An inner space for thinking

The main prerequisite which must exist in the baby in order for thinking to develop, as Klein, Bick and Bion have made clear, is that internal capacity which we refer to as an 'inner space'. But what in fact do we understand that to be? Where does it come from and what happens when it is not in evidence? How do we even know if and when it has come into being? If we assume that its beginnings are to be found *in utero* early in the life experience of the foetus (see Maiello, 1995), and that it does not come into being simply by virtue of physiological development alone, then how does it happen...and, in particular, what influence does premature birth have on the process through which it develops?

Proto-observation

We have found that exploring such basic, indeed, such 'primitive' questions is in some ways quite different from our experience of 'normal' infant observation. It has led us into areas, and has made us ask questions and face phenomena unknown and unavailable to us through the study of born-at-term infants. We found ourselves referring to this stage of exploration as 'proto-observation', a

pursuit which I have likened to 'flying blind'- that is, employing relatively sophisticated instruments to find our way through areas foreign to us, and possessed of almost none of the commonly expected and familiar developmental landmarks which we usually use to orient ourselves. Such 'proto-observation' has forced us to deal with such new problems as:

- (a) not being able to look at,
- (b) not being able to see, once one has dared to look, and then
- (c) not being able to remember what one has seen.

We discovered that we felt we hardly even knew how to begin to look at this observational material. Initially, we felt unsure about even being able to properly recognise what one might be able to see at this stage, since its being seen by the naked eye seemed such an unnatural state of affairs to begin with.

This problem lead us on to the next big technical problem, that of not being able to remember as one would expect to, but of having to build up 'memories-in-feeling', to use a phrase of Melanie Klein's, from a much more primitive 'proto-experiential' base. For, in the world of prematurity, things do not simply pop into one's mind, neither as pictures, nor sounds, nor feelings...and certainly not as words! Instead, these must be searched for in a way much more akin to the way babies themselves seem to do it: that is by arduously gathering together various seemingly arbitrary bits and pieces of experience, tiny memory traces and the first suggestions of emerging patterns, relationships and potential consistency into tiny units of retainable memory.

In order to pursue the task of observation under these conditions, the observer needed more than ever to establish a minimum of clear boundaries to the setting, and to do this within a relatively boundaryless field (i.e. the postnatal intensive ward of a clinic). At the same time she had to put up with the terrible feeling of being a more or less violent intruder into a sphere in which she did not belong. Indeed, we soon came to realise that the entirety of the outside world appeared to be nothing other than a vast and persecutory intrusion on the being of the premature organism.

Christine Röpke's material shows how baby Tommy moves from a state of primordial, protomental 'tentacle-like' merely existing, through the beginnings of inner mental-emotional life, going on to the ability to become 'focused', and finally, to begin to be able to call for help from an external object.

In conclusion, we will remark on some of the particular implications for teaching and research in infant observation that the observation of premature babies brings to light, and will share with you some reflections on the process itself and our discoveries thusfar, and mention some of the many more questions which this work has raised.

Observational material

Tommy: from a bird fallen out of the nest ... to a baby who can cry for help

Tommy was born in the 26th week of pregnancy. He weighed 960 grams - just over two pounds - and was regarded as a 'stable' premature baby. He needed incubation only for the first two days of his extrauterine life, and could be moved from the intensive care unit of the maternity hospital to the premature birth unit of the children's hospital after only two weeks.

Tommy is the fourth child born to his family and is very lucky to have an experienced, confident, understanding and well-differentiated mother.

My contribution covers the first 11 infant observations, which took place within the first three months of Tommy's life in the incubator and in a heated bed. Through my choice of observation material, I want to try to describe the very first steps in the development of mental space.

I call the first step **Learning to be**, the second step **Going on being**, and the last **Almost ready to be born**.

LEARNING TO BE

In the first step, I will demonstrate the creation of boundaries and inner space by first looking at the development of the functions of breathing and the skin. I quote from excerpts from the first and second observations.

My first observation took place in the intensive care unit when Tommy was 4 days old:

Tommy at four days old

Tommy is lying on his belly, the little head turned to the left. His mouth is open so that I can see his upper jaw. Suddenly, his whole body twitches. His mouth twists, as if crying, his leg stretches far back, his mouth closes, swallows, trembles like teeth chattering. His shoulders are twitching - then there is regular, fast breathing in the diaphragm. Suddenly strong twinges take over his breathing again. The small body doubles up, so that he nearly lands on his knees... Then there is peace again, the breathing continues regularly.

I'm aware of so many movements of his mouth, body and limbs, I can hardly keep my eyes on the whole baby.

The first observation makes me think that everything is still open. The skin is only a meagre boundary between inside and outside, still it functions at least as some protection against falling apart altogether. The very short periods of quiet breathing (tenths of seconds) seem like a rudimentary sign of Tommy's beginning to be-in-himself.

Before the second observation, when Tommy was ten days old, the nurse told me that, in the interim, he had stopped breathing briefly a few times so that they had had to put a tube down him in order to keep his lungs open.

Tommy at four days old

Again I realised how quickly his breathing moves his back up and down, the up movement appearing stronger than the down movement. Suddenly, alarm! The nurse comes running in order to wake Tommy with a brush on a long handle, which can be activated from outside the incubator. He inhales deeply, holds his breath. Now the middle of his body folds up. He twitches a few times, something seems to tear him apart. With rounded back, down to the hips, he moves his body up, then back again. He really presses against the mattress. The movements stretch from the hips right up to the back, suggesting a rolling movement. Along with this, comes a deep, twitching exhalation.

The vital powers within him seem to me to be akin to the forces of Nature herself. I suspect that through inhaling deeper, he may be widening his inner space as well as strengthening the sense of his own boundaries by means of the 'rolling movement'. Quite possibly this allows him to risk exhaling deeper, although this still happens in a rather inhibited, dampened way.

In the third observation we can see the possible significance of the functioning of the digestive apparatus and the eyes. The third observation takes place in the childrens' hospital. His breathing has become stable and he can be fed with mother's milk by tube.

Tommy at twenty-three days old

Tommy is lying quietly on his stomach. Maybe he's sleeping. After walking around the incubator with the nurse and talking with her, I see that Tommy has opened his eyes. They move as if groping in the void. He seems quiet. Shortly before, the nurse had given him a little more of the milk, to which he had not reacted immediately. Suddenly a tearing twinge moves through his whole body - so unexpectedly that I myself am startled. Then - has it to do with the milk arriving in his stomach? - big movements start from the middle of his body and continue down to his feet, hands and face muscles. This happens so fast and sets off so many different movements that I can't see everything at once. 'Like an earthquake', I think. His elbows are propped up, the little arms stretching so that his hands meet behind his head around his neck. To me, it seems a very long time before relative peace returns. I'm not sure whether he's lying there relaxed or whether he is holding himself in, under some invisible tension. In order that he does not stop breathing he is made to lie on a large rubber glove, which is rhythmically filled with air and emptied again, thus moving him quite strongly up and down. Now the hands start rounded movements, pulling his left shoulder up like a wing; one leg stretches back, his bottom moves far up, creating deep folds on his neck. 'How he must work!', I think to myself. A movement around the jaws is followed by a short twinge in the lower body...the whole body seems to be torn. The machine bleeps loudly. The nurse arrives, grumbling. She puts Tommy back in the right position. After she's gone, his face looks like crying. His eyes open for a short while. Inner movements begin again. A sudden twitch combines with the opening of his eyes. Does he open his eyes on purpose? The pupils are moving... He opens his eyes again and again. All this seems very stressful and strenuous so that, although my observation time is over, I feel uncomfortable leaving him there all by himself.

In this observation Tommy seems to have been able to secure the conquest of his inner breathing space, although still in need of some external support for it. Sleeping still means a risk to his life. Yet rest periods of up to two minutes have become possible.

In the seminar we note that 'the forces that Tommy's little body has to withstand are out of proportion to its substance. They seem like incredibly powerful natural forces - akin to those of an earthquake. The language which we use to try to describe these phenomena is violent, earth-shattering...especially when compared with the slightness, the tenderness of Tommy's little body. Yet it is our impression that at least a little more 'being-in-himself' can be perceived. The tearing, twitching movements happen in counterpoint to the 'big' movements, which clearly emanate from the centre of his body, where digestion takes place.

During the first observations it felt as if it didn't matter at all whether I was there or not. But this time Tommy gives me the feeling of reacting to my presence. Incredibly, he opens his eyes when the nurse and I come up to the incubator. In our seminar notes we called this a reaction to the 'presence of an object'. I quote from the minutes: 'He seems to distinguish, to perceive our presence, as it were, on a sort of 'protomental' level. He seems to 'realise' that a 'something' is there, and that this 'something-being-there' feels somehow different from when it is not there. It seems to us that Tommy perceives, not with his eyes, but, on the one hand, with something akin to 'feelers' and on the other, with his ears'. This recalls Maiello's (1995) hypothesis about the influence of prenatal hearing on experiences and memory. One might also venture the hypothesis that the need to cope with the pain which accompanies the installation of digestive functions makes the way inside himself more apparent to him, and that this might give him a first opportunity to feel the difference between good times and bad times. Besides, the beginning development of his eyes shows him the way towards the lively external environment, filled with objects, of which he is beginning to get a glimpse. Perhaps that is why I find it so difficult to leave. I begin to feel clearly how important pure presence is becoming for Tommy.

GOING ON LIVING

In this second step, we perceive the first glimpses of a mental space.

I quote from the fourth observation. Tommy is one month old. Here, for the first time, we see what in German we call an 'angel's smile':

Tommy at one month old

When I arrive, Tommy is just opening his eyes. He is lying peacefully on his tummy on a small white lambskin. His head is turned to the right, facing me. His cheek is resting on a cotton nappy. The little right arm is stretched upwards next to his head, all relaxed, the left arm at an angle close to his body, the little fist under his chin. He looks blissful lying there, and the small movements of his hands and feet convey a relaxed, pleasant feeling. Then the angel's smile appears on his face. Suddenly a short, forceful stretching, as if he wanted to push something away. This leads into his pulling up his feet and hands, and to turning his fists inward, as if he were trying to gather himself together again. I feel relief, astonishment and joy that he was able to offset what was going on inside him... His mouth is opened just a little, and he sometimes stretches his tongue against

the inside of his lips as if groping, playing. For the first time, I get the feeling that he's sleeping peacefully.... Often, especially when he's badly shaken, his eyes open and move in big round circles as if searching the room. ...Eyes open, he looks straight at me. For the first time, I recognise his pupils. He keeps looking at me for a long time. Even when his eyes close again, the feeling that his attention is still directed towards me remains. Then the mouth movements from before recur: the groping and feeling with the tongue which fills out the upper lip.

Both the seminar group and I react to this observation with relief and joy. Although we keep seeing how much Tommy is torn, pinched and shaken, at the same time it becomes obvious that he has gained in substance and that this helps him stay in one piece and gather himself up again when necessary. The angel's smile, the head peacefully resting on his arm in spite of all those dramatic movements, the capacity to sleep peacefully and to make visible what he experiences by the mimicry of his face, make us think that we are here, for the first time, able to observe signs of the development of inner space. Might the perceivable pushing away movements be the very first, very limited but definite physical possibility of trying to rid himself of bad experiences?

On the level of external object-relations, the contact level, the search goes on. It seems to find a certain boundedness in the capacity to keep his eyes on me, while at the same time gathering first experiences of the boundaries formed by the inside of his mouth.

The following minutes were the first which were written partly from memory. This presumably has to do with the fact that his mental space has now developed just enough to be recognisable. Now his emotional life seems to be housed within him in a way that allows me to begin to understand and recall his manifest behaviour better.

In the seventh observation we hear Tommy's voice for the first time, and can see the first signs that he might be dreaming. Since the previous day he has been drinking mother's milk from a bottle. He is lying in a heated bed, dressed and covered up. He has gained 800g.

Tommy at nine weeks and three days old

When I arrive, Tommy is lying there, peaceful and relaxed, so that I feel irritated when he suddenly opens his eyes. I had thought him asleep. He stays awake, lets his eyes open now and again, and his hands make little movements which appear to me to be pleasurable. He grunts a little, which I find very moving, since this is the first time I get to hear his voice.

Just as he can now experience and use the inner space of his mouth, he seems to be increasingly aware of 'presence' and to be able to use the contact space created by this presence to stretch comfortably into it. This becomes even clearer when the nurse comes and talks to me:

Now Tommy opens his eyes wide, moving them back and forth, as if looking for something or somebody. He looks 'content' and a little 'cheeky' and finally 'laughs out loud'. This is completely different from the angel's smile, which seemed to come from somewhere indefinite. Now he's laughing as if he's just been thinking

of something nice. Just before, when he had closed his eyes and smiled, the nurse said: 'Look, he's dreaming again'.

In the seminar - I quote from the minutes - 'we try to understand the smile. It might be classified as being on an animal level. After all animals, also "understand" when they are talked about in a kindly tone.' But, as Meltzer writes in his Foreword to *The Newborn in the Intensive Care Unit*, (Negri 1994) this does not seem a useful way to think about human development. According to Meltzer, the question 'When does the tiny animal become a human being?' is irrelevant. Tommy seems to be quite aware of the environment which feels kindly towards him, but in an essentially human, not an animal-like way. This leads us to thinking that he has developed something of an emotional awareness, and thus has got something 'emotional' to digest. He carries experiences in him which the nurse also notices and which she describes as 'now he's dreaming'. Meltzer goes on to say, "There is no purpose to be served in asking, "At what point in gestation do experiences - human experiences begin?"...Having experiences is part of the human natural history' (Meltzer in Negri. 1994; xv).

In his waking state as well, it seems to us that Tommy might be pondering over what he has just been experiencing and digesting it. Analogous to the digestive system, his thinking system, too, is beginning to function. It becomes evident to us why Bion took the digestive system as his model for the development of the thinking system as well as for the development of emotional growth. Both systems take in, both work and suffer, and in both a peaceful state is re-attained when the work has been done, and something has been transformed and achieved.

After having been shaken during several severe digestive periods within a short time:

Tommy cries out loud three times, which then leads to a low whimpering. The machine beeps. The nurse arrives, and she asks him what the matter is? Is he hungry? She picks him up. He opens his eyes wide, looking quite old, and somewhat odd and a bit displaced. She stimulates his lips to find out whether he is hungry or not, and sits him in a corner of the heated bed. She gives him a tiny dummy, which he accepts immediately, but without any strength. He sucks it with his eyes open wide and his toes pulled up, hands and arms tense, until something inside him starts working and he loses the dummy.

Now the voice has been added as a new organ of contact, something which also helps him to make his needs public. But this voice is still too weak, and his experience of response to it still too slight for it to be recognised as 'crying-for-somebody'. It does, however, give us a hint of a pre-conception which one might describe as an initial 'calling-out-for-something'.

The more Tommy develops, the more external stimuli he can take in, even without having anyone name them or give them meaning. But this then leads to excessive demands being placed on him, now that his body has matured enough so that outside support systems can be eliminated, if only on a trial basis. To us it now seems that Tommy is no longer being lived, but has really begun 'living-on-his-own'. And, he makes it clear to us that this is a very strenu-

ous and tiring thing to do. On the contact level, this means that human beings, with their capacity to recognise vital needs, have become of the utmost importance to Tommy. They can, and indeed, must now take over the functions which up until now have been the province of the machines. Caring for him in a proper human way, including the management of excessive demands on his life systems, has replaced technology in being vital for his survival.

We have arrived at the third step of my presentation.

ALMOST READY TO BE BORN

At the end of the ninth observation I learn from the mother that Tommy will be able to come home in two or three weeks time. By this time, he has begun to use his eyes actively in order to differentiate things in his environment, especially objects. He is quite able to cope with breathing and digestion, if they are not too violent, and has begun to search for help from and for contact with objects.

Tommy at eleven weeks and three days old

Tommy is asleep when I arrive. As I come closer to him, in order better to see the faces he is making while busy with his digestion, it seems to me that he reacts to the change of light and dark caused by my shadow. He opens his eyes and says 'wayyy'. The pupils widen and remain directed upwards, the eyes wide open. His mouth starts moving. He licks his lips, spits something liquid, transparent, licks and looks - the machine is beeping - he grunts, presses...groans in a bleating way 'ahh, ah, ah'...his tongue comes out, goes back in, pressing; Tommy coughs and smiles. Then he looks again. Searching. He seems to experiment with his eyes and to discover that looking up is different from looking down to where I am sitting. Several times his eyes wander between up and down; every time remaining a bit longer on me. Once I think he might be looking to me for containment, then again I think it's all just chance, and that he's only listening to his inner self.

Here we see how important Tommy's eyes have become for getting into contact with the outside world and with the observer. This is particularly clear in the eleventh observation, the last one in hospital.

Tommy at thirteen weeks and three days old

Tommy no longer needs the tube. He is lying peacefully on his back, his eyes open a little, not looking out...When the nurse offers him a little spoonful of mother's milk with vitamins and drops against wind, he licks it, the expression in his eyes questioning. Finally he swallows it. Then he drinks steadily. The nurse, too, remarks on that. While she looks at him, his eyes are on her... he is put to bed on his back and after a short while starts rolling and tossing, pressing and crying out in a loud, plaintive voice... He is very active with both his mouth and his eyes: he opens his mouth, starts moving his tongue around the inside of his mouth, then in and out, he presses his lips together, pulls his tongue in, seems preoccupied with his mouth, his gullet and his tummy...

Tommy is now clearly demonstrating that he is ready to go home. I would like to close my report with a quote from the minutes of the seminar: 'His eyes, at first open only a little, have this quality: In himself he is like a mere glance, a relaxed open eye, he looks neither inwards nor out, but holds the light within him and seems relaxed. He seems to have the possibility of an inner space in his

eye, in which he appears protected from both internal and external stimuli... It is now as if he is simply there... yet, if mother arrived, he would certainly let her into his eyes.'

The implications of the observation of premature babies for teaching and learning in infant observation (Gisela Ermann)

Christine Röpke began observing this premature baby from the standpoint of an infant observer and researcher, who set herself the task of observing a baby whose life outside the womb had begun before term, without any special institutional or role relationship other than that of the observer's role itself. Now it is my task to explore some of the important technical and theoretical ideas and problems arising from this type of infant observation, not only for the observer herself, but also for the other seminar participants and the seminar leader.

To observe a premature baby is at once exciting and terrifying. Although to a certain degree the excitement and terror experienced in this undertaking do not differ from that which accompanies every infant observation, in certain specific ways such an observation is very different indeed. One might almost say that observing a premature baby is actually a contradiction in terms: somehow it goes against the grain. As natural as it feels to want to look, full of adoration, at normal, full-term newborns, it feels anything but normal or desirable to want to observe a premature baby closely. I would now like to suggest some ideas about why this is so, while not neglecting the aspects of this work which nevertheless make observing such a baby so special, so rewarding and so pleasurable.

Premature babies come into the world abruptly, suddenly - unprepared for their precipitate birth, and without allowing their parents the usual and natural preparation for birth which full term pregnancy allows. Suddenly, they are in the world, but because of their relative incompleteness and immaturity, both they and their parents are totally overwhelmed and overburdened by this existential fact.

For the observer, too, this situation can be likened to the 'fall of an angel'. Suddenly, one is confronted face to face with the hard reality of the most primitive, most basic emotional states, namely those occurring literally between life and death, survival and extinction. Here, too, the observer has no opportunity to prepare herself for the beginning of the observation by gradually getting to know the pregnant mother, the father, the rest of the family and the home situation before the observation commences.

When Tommy was born, the observer had to ask the mother for her permission to observe while mother was still in the clinic, herself not yet recovered from the shock of Tommy's premature birth. Although the observer felt an invader into

Mother's already wounded state, Mrs. L. didn't appear nearly as emotionally upset as the observer had feared she might be. Despite her own difficulties, and despite the danger her little baby was in, she reacted co-operatively and full of good faith from the very beginning, feeling secure in her conviction that God's love was holding and looking after both her and Tommy. This was the first unusual situation for the observer as she began observing this premature baby.

In the seminar discussion at the beginning of this observation, we fell prone to the speculative fantasy that both God and the observer had been incorporated by the mother into a kind of huge mental uterus which encompassed and protected both mother and child. It was our impression that Mrs. L employed this phantasy as a means of defence in order to manage the shock of the suddenness and danger of Tommy's birth.

This situation had significant consequences for all concerned. For example, at the beginning the observer did not feel capable of observing for an entire hour. Then, she found that she could not hold in her mind what was observed. It had to be written down immediately, during the observation session itself, if it were not to be lost entirely. It was as if paper and pencil had become as important for the survival of the observational data as the measurements performed by the monitoring machines for the essential data regarding Tommy's physical survival. It sometimes even appeared that making these notes had become an absolute prerequisite for the observer's ability to remain in contact with her own existence as an external creature. This aspect of the observation we somewhat facetiously came to refer to as '*scribo ergo sum*'! Paper and pencil thus came to function as a preliminary receptacle for the raw material of the observation, which it seemed the observer could not otherwise retain in her mind in anything like its original state.

During this stage of what we have called 'proto-observation', the observer had to learn to deal with phenomena which we conceived of as taking place at a 'proto-mental' level of existence. Observed directly, these were impossible to retain at a mental level at all, not to mention becoming available for being thought about any further. This lead us to wonder what impact and implications this kind of *a priori* 'mindlessness', which seems to pervade the premature infantile state, might have on the mother's ability to begin to perform adequate reverie and alpha-function for such a baby in the first place. Because the situation being observed is so incoherent, it seems impossible to perceive, retain and recall a coherent image of it. This fact found expression in the statement from the first observation when the observer wrote 'I am aware of so many movements of mouth, body and limbs that I can hardly keep my eyes (and my mind) on the whole baby...'

A particularly taxing aspect of this observational work stems from the fact of having to observe the immature precursors of somato-psychic life with one's own mature adult mind. In order to be able to perceive sensually and then to acquire insight into the internal workings of a premature baby, the observer has to sensitise herself to picking up the signs of such 'proto-experiences', where no think-

ing, and indeed not even 'experiencing' in the usual sense, seems possible. Instead, she must learn to rely on perceptions of an extremely primitive kind: a somato-psychic, visceral, deeply infantile 'getting some sense of' as the only possibility for gathering observational data at this stage of prematurely induced extrauterine life. The observer must strive to apprehend at this extremely basic level, and begin to 'contain' such 'proto-experiences', although in their original raw state, they hardly can be contained. Our hypothesis about why this is so, is that the kind of thinking processes essential for the operation of the container-contained function are neither available nor appropriate to this primitive level of being. For this we think of as the level of beta-elements pure, and it is still a mystery to us what happens to them when they are initially apprehended.

A particularly astonishing related experience was that, during the observations proper, the observer felt no pain at all while witnessing these raw, immature, unfocussed, uncontained events. It was not until afterwards, when trying to put the observed phenomena into words and symbols, that is when trying to communicate and think about them, that unbearable psychic pain set in.

In the observation of a premature baby, the seminar as an institution and its individual members perform a particularly important support function for the observer. Given the insecurity of the observation setting itself, the observer felt she needed more than ever the reassurance and security which the fixed structures and setting of the seminar provided. On many occasions, especially at the beginning, she emphasised what an important role the group played in giving her greater stability and security in her role. In this sense, one might even think of the seminar as having taken on the function of a kind of incubator-womb for the nascent observation, providing it not only with regular structure and rhythm, but also with a centre of concentrated attention and a collective capacity for openness and receptivity of emotional contact.

Parallel to this experience, we noticed very interesting variations in the different functions that the observer took on during her observation of Tommy. At the beginning, when Tommy was still in a kind of 'protomental', 'tentacle-like' state of existence, the presence of the observer functioned as a kind of hedge, putting a simple, primitive limit on the otherwise endless space around him. Simple and basic as this was, the observer felt this to be an extremely important function, and one in which she felt she truly became a substitute maternal object for him. As such, it became very difficult for her to leave Tommy alone in the endless, unbounded and uncontained space outside the womb.

Later on, however, when the first experiences of inner space had become observable, the observer gained the impression that the function of her presence had changed fundamentally. She had developed from a mere boundary-setting hedge to a living human being, who now ran the potential danger of overstimulating and overwhelming the fragile, newly won capacities of the infant. Again she felt herself to be an intruder, but this time of a different sort. She began to feel that her mere presence might become too intrusive and disturbing, and became preoccupied with the fear that the delicate process of the

development of Tommy's inner space might be all too easily disturbed just her by being present and looking at him.

Still later, the observer came to feel that Tommy was irritated, not only by her presence as an object, but also by her very aliveness and liveliness. In this phase, the observer was preoccupied with the prospect that Tommy might become overcharged and overstimulated by this, and therefore subject to further unnecessary and excessive demands on his minimal, beginning capacity to experience stability and containment. A baby still resident in mother's womb is, after all, well able to withstand partial discontinuity and temporary overstimulation because it has an ongoing experience of continuity through being held within the mother's body. Together with the loss of the womb however, premature babies also lose the opportunity to retain this sense of the continuity of 'going-on-living', indispensable for enduring the normal discontinuities of everyday life. This made the observer shy away from approaching Tommy in too lively a way, feeling so acutely aware of not being able to guarantee him the continuity of presence necessary to support him.

It was not until Tommy was well able to live on his own that the observer began to feel she was a good, well-functioning container for him and his somato-psychic experience. And, logically enough, this also corresponded to the moment when she could begin to write up the observations from memory alone, foregoing the need to take notes during the observation time. The observational experience had developed from being a mere hedge, simply providing a primitive boundary to otherwise unbounded existence, into a properly functioning mental container for the baby's mental and emotional life. This impressed us, even amazed us, and was felt by all to be a profoundly instructive learning experience towards the development of observational competence.

Lastly, we want to report to you an important experience we had in common, concerning our sense of guilt. Again and again during the course of the seminar, quite severe feelings of guilt made themselves felt. We actually felt guilty about witnessing phenomena ordinarily not visible under normal conditions. It made us feel like voyeurs, almost like perverse sensation-seekers, especially because what we saw, we often simply found to be ugly. In Meg Harris Williams' *Ugly Duckling*, her imagined baby 'divined that according to the colossal all-knowing, all-powerful beings' encircling him, he was 'monstrously ugly, deformed beyond the power of expectation', 'a harbinger of death', with 'death's odour clinging' to him, and that he was 'clearly, not one of their kind' (Williams in Negri 1994, p. xviii). This descriptive fantasy fits our experience precisely, and coping with it proved a major challenge to our being able to look at the observed material properly.

On the one hand, looking at this ugliness often made us feel bad. On the other hand, and as a reaction to it, we often found ourselves inspired to seek and find images, like this one from the Talmud, in order to express both aspects of the experience: the bad and painful, and the good, beautiful and enlivening:

A PARABLE

'What does the baby in mother's body resemble? A folded up notebook, simply lying there. It has its hands over both its temples, both its elbows over both knees, and its heels over its buttocks; it has its head between its knees, its mouth is closed, and its navel is opened. It eats from that of which its mother eats, and drinks from that of which its mother drinks; it excretes no refuse, for that could kill its mother.

As soon as it comes out into the air of the world, that which was closed opens, and that which was open closes. If that were not so, it could not stay alive, not one single hour. And a light burns over its head, and it peers and sees from one end of the world to the other...' (Trans. RAL).

Ultimately we feel we have had immense good fortune in being able to partake in the search for and the discovery of the beauty resident, but hidden, in the ugliness of premature birth. This, above all, has made this work an experience that none of us would have wanted to miss.

Closing remarks

Looking back and looking forward (Ross Lazar)

Before closing I want to go back briefly to the beginnings of this project. In fact it began in the lecture rooms at the 1st Tavistock International Infant Observation Conference. It began when I heard Meg Harris Williams 'beautiful Tale of the Ugly Duckling', when I saw Romana Negri's video and read her book. At the time, Romana Negri and I spoke of the feasibility of doing an 'ordinary' infant observation of a premature baby, that is without the advantages and disadvantages of a clinic setting. She lent me one of the few precious copies of the video, and I took it home to my seminar group in Munich. I showed it to the seminar along with a few other films on premis, and we discussed the possibility of carrying out such an observation project in our group. Of all concerned, the most sceptical and doubtful about it remained me! It was a very powerful and moving process. Continuing to feel reluctant, I kept voicing my doubts and ambivalence. Nevertheless, we persisted. A paediatrician colleague of ours, knowledgeable about and very sympathetic to our observation work, contacted the professor at the nearby university neonatal ward and helped us set up a pilot observation project. As a result of this initial project, we found ourselves faced with a multitude of serious problems: emotional, technical and ethical in nature, and we quickly learned an enormous amount about how one should and how one should not go about beginning to observe a premature baby.

Now, after nearly fifteen months of following the observation of Tommy, it is clear even to me that such observation is not only feasible, but also immensely rewarding and satisfying, both as an exercise in infant observation in itself and

as a means of (re)searching into the primordial depths of the beginning personality. We have presented to you some of the pitfalls and difficulties of this endeavour. As for its rewards, I let the material speak for itself.

In looking to the future of observation work with and clinical care of premature babies, I would just like to mention a few of the many ideas and questions which these observations have raised and which will be important focuses of study in future.

Firstly, to return to Freud's famous observation that 'intrauterine life and early infancy are much more continuous than would be imagined from the striking fact of the caesura of the process of birth', and to Bion's extension of this idea back into intrauterine life itself, we must ask how these notions fit in with what we have been able to observe about mental life which has been prematurely forced to vacate the womb? According to Bion (and, needless to say, according to many religions), something of spiritual, mental life already exists in the foetus before birth. Are we then, when we observe a premature baby, in the presence of a being which in some sense has already begun to partake in this spiritual, mental life? Do we not, in admitting to the possible validity of such an assumption, run a great danger of mystification, of anthropomorphisation, of projection 'backwards-in-time', to borrow Piontelli's phrase, by attributing such capacities to the foetus, and hence to the premature baby? But, on the other hand, does not the denial of a spiritual, mental dimension of intrauterine and post-uterine life quite possibly simply amount to a (cowardly) defence against the enormity and mystery of such a notion?

Secondly, Bion postulates the notion of 'unborn parts of the personality'. If these really exist, and if, perhaps even with every birth, some parts of each personality get left behind 'inside' as it were, then what is the impact on the personality when the entire foetus abruptly gets cast out of its prenatal home, gets 'shipwrecked' as Harris Williams aptly puts it, on the shores of external life, long before any of these parts are anywhere near ready to disembark onto the dry land of the outside world? Do some still manage to harbour safely inside? Do some simply shrivel up and die in the arid atmosphere 'out there'? Might there be more in the way of psychological 'first aid' or 'crisis intervention' possible, which would improve their chances of survival as oxygen and medication improve the chances of physical survival?

And what about the predicament which the 'presence of the object' seems to confront the premature baby with, and which our material tried to illustrate? What implications do we draw from that, both for further observation of prems, for our observations in general, and for the kind of presence necessary and desirable for premature babies?

Other vital questions which this material raises, but which I can only mention briefly include these: What are its implications for our understanding of the origins of autism? For the treatment of mothers and babies who are finding it difficult getting started in building up a good relationship? For babies who

have no primary maternal caretaker? How does what we have seen fit in with Mrs Bick's notion of the skin as the primary container of the personality? (Bick 1968) with Frances Tustin's thoughts and observations about the role which the appropriate regulation of stimuli plays in the genesis of autism, childhood psychosis and other severe pathologies of early childhood? (Tustin 1981). These and many other questions will undoubtedly keep us busy in future as we continue to observe premature babies, something which we are already making plans to do. For my part, I have lost nearly all my initial reservations and inhibitions about this work. Instead, I eagerly look forward to continuing it. But in so doing, as well as in sharing it with you here today, two central thoughts which Meltzer formulated in his Foreword to Negri's book stick in my mind, and are, I think well worth remembering:

The first one is that in carrying out such observations, while undoubtedly engaged in probing for Truth, in looking to catch further glimpses of 'O', we must never forget that the object of our scientific scrutiny is essentially mysterious to the core, and will therefore ultimately defy our relatively feeble attempts to 'know' it. Following on from that, Meltzer reminds us that, in this work, we are engaged in the exploration of 'nature's infinite inventiveness' as expressed in the 'aesthetic of living forms' and informed by a 'philosophy of the essential individuality of the human being' which, taken together, insures that every baby gets born at least with the potential to become 'beautiful'...if only it gets a chance to survive, if only it can learn to be.

Postscript

Additional observations of Tommy's mother and his relationship to her

When we presented this paper at the Second International Infant Observation Conference at the Tavistock Clinic in September 1997, many people rightly observed that infant observation as we understand it ultimately always means observing the mother-and-infant couple. Thus it is only logical to ask why we did not follow this cardinal rule and observe both mother and baby right from the start during the time Tommy was in hospital. The answers to this key question are many and complex. First of all, there were the practical reasons: For one thing, it would have been very difficult, if not impossible to combine the time schedule of an intensive care unit both with the observer's busy work schedule and mother's visits, limited as they were by the need to care for the family's other two children (two daughters, twelve and one). For another, at the beginning of the observation things happened so quickly that the first contact with the mother was not even made until after Tommy's birth; and it was felt at the time that the most important thing was for the observer to get mother's provisional permission to begin observing the premature baby as soon as possible.

Then, immediately after the observer had gained mother's and father's final consent, Tommy had to be transferred to a different hospital. This then meant that it became acutely important for the observer to meet the doctor and the staff on the ward and get their approval before continuing the observation, while mother herself had to find out how she was going manage to see Tommy twice a day without her little daughter having to suffer too much.

But also the observer clearly felt an intuitive inhibition against observing mother and child while the baby was still in the incubator. In the intensive care unit, she had been exposed to several mothers and couples who had had premature babies, and was therefore immediate witness to the intensely painful, emotionally traumatising experience these parents had been through, and to the precarious mental state it had left them in. In part this was due to the very 'public' situation in which they found themselves, in a unit with countless numbers of different nurses, doctors, babies, mothers, machines and noises. And this then meant that mother and baby, both having suffered the traumatic wound of premature birth, now had to struggle to find intimacy in the midst of this public place, constantly under observation and supervision. How then, she asked herself, could she as an observer sit herself down in the midst of this and observe this process as well?

Yet the most central and conscious motivation not to observe mother and baby as a couple was the observer's own particular interest in seeing how a premature baby experiences and copes with the vast amounts of time he must spend without his mother. For, after all, being alone for hours on end with only the machines and the multiplicity of strange and different people to accompany it is a premature baby's main state of being, indeed its fate.

So it was for these three reasons that the observer did not even think to ask the mother when she would be in the clinic, or attempt to adjust her observation times to mother's visits. Instead she deliberately left it to chance whether mother would be there when she came to observe or not. In the end their times in the clinic coincided only on a few occasions towards the end of the observation period.

The remarkable thing about this experience was the fact that the observer still felt she could sense mother's presence with the baby, despite her physical absence. In retrospect, it became apparent that this ultimately had to do with mother's extraordinary ability to contain both her own experience, that of her premature baby and the situation he was in, as well as her family's situation, and that this undoubtedly contributed in a major way to Tommy's positive development. The following passages illustrate this particular aspect of the relationship of the mother-baby couple.

My first contact with Tommy's mother took place on the fourth day after his premature birth. We met in her hospital room. With a pounding heart and feeling myself to be a potential intruder, I arrived with the intention of explaining my intentions. When I first saw her, she appeared pale, exhausted from the birth, and worried about her husband, whom she had had to leave with the other two

children right in the middle of rebuilding the kitchen. She reacted to me and my plans with distance, still she appeared friendly and curious. As far as Tommy was concerned, she appeared to me to be surprisingly calm. On the one hand she appeared to be full of sympathy for the 'poor little worm'; on the other, she stated that it was God's will. Why it was so, she said, we do not know, but she was totally convinced that HE would take care of Tommy. Here we are able to get a clear impression for the first time of how this mother feels herself to be contained by her faith in God. She assumes there to be a deeper meaning to her and her son's fate, without having to know herself what that meaning is.

Upon the occasion of our second encounter, six days later in the same hospital room, and after having given me her and her husband's consent to my observing Tommy, she said, 'He is better. He's put on a little weight and has got "little cheeks", and he opens his eyes. However, his breathing had become unstable, and they had had to intubate his lungs to keep them open'. Here one can witness mother's capability to be aware of and to describe dramatic, life-threatening events without losing sight of the positive, progressive facts of Tommy's condition. Already at this early stage in the work, the observer feels herself exposed to positive life-giving forces in a way which astonishes her.

In the third interview, which took place at home with both parents present, the observer was received in a friendly and kind way. When she told the parents how impressed and touched she was that Tommy seemed to be working so successfully at taking over his own life functions, Mrs. L. replied: 'Yes, that's true. When he lies on my breast, I can feel him working for a while. But after a short time he relaxes. It seems to me as if he were on summer holiday.'

This scene filled the observer with a confident and happy feeling. Also this was the moment when for the first time she could clearly see the constellation of an unshakeable mother-child-couple, an image which lasted throughout all the subsequent observations. This aspect of the maternal couple's relationship was particularly well demonstrated in the notes from the fourth observation, where Tommy's having to cope with earthquake-like digestive processes is described. As the observer left this observation, she thought to herself: 'That will keep him busy for a while... but then, his mother will soon come!' In the seminar discussion which followed this observation, we advanced the hypothesis that Tommy's impressive ability to keep himself together, to find rest through sleep and to create an internal mental space corresponded to mother's ability to be aware of him as much in his distress (while 'working hard') as in his internalisation of good, soothing, relaxing and refreshing experiences (i.e., 'summer holidays').

When during the seventh observation the nurse told the observer that Tommy was now much more aware of what was going on around him, that he didn't just sleep or rest with mother anymore, but came awake and looked at her, the seminar's comment was: 'As to the atmosphere in the baby's room, the observer describes it as "containing". In so doing, she was thinking of the "positively attuned mother", who continually sees the hopeful aspects of her premature baby's life'.

With that we come to the end of the observation phase here described, and hope that these fragmented efforts to describe the mother-baby-couple have filled out the picture of Tommy's first months and that the concluding words of

the observations up until this point quoted before are now more understandable. Here they are again: The observer sees Tommy as if he himself were 'a mere glance, a look, a relaxed open eye. He looks neither inward nor out, but seems in a relaxed state and he seems to have the light within him. It is as if he has a potential space in his eye, protected both from internal and external stimuli. He is simply there... yet if mother came, he would certainly receive her into his eyes'.

The observations which followed, and which took place in the usual framework at home, seemed to us to confirm our hypothesis in many different and subtle ways. Unfortunately, a presentation of that material would go far beyond the framework of this paper. In closing, however, we would like to add just one more thought: In the second interview with mother, she affirmed how 'clever' Tommy was in her eyes. In fact, she often repeated this comment. It seemed to include two kinds of feelings: firstly, the feeling of how threatened Tommy's life had been at the beginning, and secondly, admiration for the wonder of Creation that is her child.

In fact Tommy is observably 'clever'. From very early on, he was able to react in a surprisingly emotionally separate way, and we wondered whether his mother's quite remarkable and outstanding ability to 'let him go' had come into being through her awareness of his mental capacity for survival right from the start, thereby encouraging him, enabling him and helping him to survive emotionally and mentally as well as he did.

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