Engaged from birth: children under two talking on telephones

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Abstract

Despite the wealth of studies on adult telephone talk, very young children's encounters with telephones have been little studied. The research that has taken place has mostly been within the discipline of developmental psychology, plus isolated investigations in sociolinguistics and conversation analysis. These approaches have made use of an uninterrogated deficit-based model in their assumptions. One aspect of this is the investigation of children's competencies, defined according to adult practice. A second aspect is the notion that learning to talk on the telephone represents an engagement with a technology that lies between the primary communication mode of face-to-face talk, dealing with the 'here-and-now'; and later literate modes.

In this presentation I make use of data collected from children's encounters with telephones in the first two years of life. Far from passing in a linear way from unadulterated face-to-face talk to engagement with technologies - 'literacies' at pre-school/school entry age, very young children endeavour to meet the challenge presented by telephones in their earliest vocalisations. Furthermore, their endeavours to meet the constraints and employ the socially conventionalised routines of the telephone are best captured by a recognition and examination of their characteristic ways of entering new discourse, including pretence, rather than through the imposition of an adult-based model. The resulting picture of early telephone discourse is, I argue, far richer than has hitherto been acknowledged. The investigation of young children and telephones has implications for wider issues concerned with initiations into new discourses.

Introduction: children and an overlooked technology

One of my principal aims in this paper is to demonstrate that young children's interactions with telephones is a fascinating subject of research, that has been largely and perhaps wrongly overlooked. Research on child language development is founded upon a basis in investigation of face-to-face oral language, chiefly in psychology/psycholinguistics. As the chronological age of subjects rises such studies became interlaced with the discipline of education, and investigation of children's literacy becomes an enormous research topic. Literacy, I suggest, is generally conceived of as beginning later than face to face communication.

At present, it can be observed that the definition of 'literacy' itself is undergoing a broadening of scope, as the new computer-based technologies permeate our social practices. As Lankshear and Knobel (1997: 139-140) point out, "technological literacies" is a term coined to embrace the incorporation of a *new* technology into our practices with language. The practice of writing of course involves the technology of writing, but this has become so normalised, so taken for granted that in everyday practice the technology is essentially 'invisible'. Ong (1982:79-81) similarly argues that in our society we have so deeply interiorized writing that it transformed our consciousness, and so that we find it difficult to consider it a 'technology'. The broadening of studies of literacy includes then new technologies: TV, personal computers and so on while largely neglecting the common telephone.

However 'interiorized' or not the telephone is for us (a complex but interesting question) it is certainly clear that it continues to be in dynamic change in terms of technology and local use patterns; mobile phones require new routines in telephone talk. Schegloff (1979: 71) pointed out that before principle topics can be attended to, telephone interlocutors have to achieve mutual identification. Geographic location has not been included as *necessarily* pertinent to openings by ethnomethodological researchers into telephone conversations in the same way (see Hopper, 1992). However in many telephone conversations between mobile phone users mutual identification is achieved by textual notification upon connection. At the same time the geographical location of the answerer is no longer a 'given' to a caller and therefore has moved 'up' to openings (Laurier, forthcoming) and this aspect of use alone might be presumed to drive some investigations relating to children.

Even if this aspect of changing social usage remains unexamined, the telephone presents an interesting cognitive challenge to new users including children for many reasons, three of which I single out here:

1) The distancing of the interlocutor and removal of the physically present shared environment, all of which have associated consequences for the necessity of explicit reference not always demanded in face-to-face interaction.

2) Absence of non-verbal communicative cues (Rutter, 1987) and the consequences of this;

3) Specific discourse features that embody both the necessity of coping with the constraints of telecommunications (e.g. definite openings and closings) and telephone etiquette, influenced by ritualised constraints (see Goffman, 1981: 22).

Yet until the work of the developmental psychologist C.A. Cameron (e.g. Cameron, 1997, 1998, Cameron and Lee, 1997, Cameron and Lee, 1999) and the present author, young children's telephone discourse has been little studied, despite the ubiquity of telephones in their surroundings. Research that has taken place has mostly been located in experimental settings where adult researchers have set the agenda for study of adult-child telephone calls (e.g. Holmes, 1981; Bordeaux and Willbrand, 1987; Warren and Tate, 1992). Yet the possibility of an inhibiting effect of artificiality of research design and adults' dominating behaviour is overlooked. For example, for her sociolinguistic study of eight-year-olds on the telephone, Holmes (1981) set up highly artificial situations for child-adult telephone conversations. Although she characterised the children's performance as generally proficient, she recorded they rarely took the initiative; indeed not a single case was recorded when the children were receiving calls as opposed to making them. She also found the children failing in meeting adult norms for telephone dialogue in a number of respects such as not supplying appropriate feedback and moving to closures without warning.

Investigating the performance of younger children, Bordeaux and Willbrand (1987:264) concluded that "children from two to five years do not use telephone discourse imitating behaviors or discourse rules." Their detailed analysis revealed an apparently slow development of telephone discourse competencies. For example although the youngest children could answer the telephone it was not until

they were five years old that they were beginning to be able to introduce first topic as caller. The work of the developmental psychologists Warren and Tate (1992) is similarly dominated by the assumption that children are less than competent and that their deficiencies are measurable and demonstrable with the use of statistics.

Cameron's work is more concerned with creating situations that make 'human sense' to the child (to use Donaldson's 1987 phrase) and bringing out their competencies. I infer from her studies that her original aim was not to investigate telephone discourse as such but rather to use the telephone in her investigation of children's language development, especially of referential language in particular. She has developed and broadened the scope of Lloyd's (1990, 1991) work, in which laboratory-based studies of (older) children's referential communication employed telephones in problem-solving exercises set by the researcher. For Cameron, study of children's telephone talk offers an "ecologically valid intermediate context." The interlocutor is not physically present as in face to face talk yet the immediacy of conversation is not lost. The absence of non-verbal cues may act as a constraint on successful communication; on the other hand the user does not have to grapple with orthography. So undoubtedly as a communication channel the telephone can indeed be conceptualized as occupying an intermediate position between face to face and written communication. It is 'ecologically valid' in her psychological investigations of children's referential language in that it is a familiar object to children and can therefore be used to enhance children's experience of the task rather than alienate them.

For me, Cameron's most interesting proposition is that in another sense related to language development the telephone is an intermediate or transitional object. In their 1999 paper she and Wang work with Snow's (1983) notion that the use of distanced language is at the core of the transition to literacy, and that reading and writing are consummate acts of this distancing, or "decontextualization". This is the model that presumes face-to-face talk to be primary, related to the immediate environment and hence 'contextualized' and forming the linguistic environment for the young children. As this child grows older, in industrialized and literate societies at least, s/he learns to read and write, thereby appropriating a new literacy – a command of language that is 'decontextualized'.

However in company with many theorists Cameron (see e.g. 1998) and I have a clear problem with the notion that language can be 'decontextualized', i.e. removed from context in any sense. Language in use always has a context. The term 'decontextualization' surely requires some untangling into some different strands, albeit perhaps difficult to separate totally.

One element of 'decontextualization' appears to be involved with distancing in the mode and process of communication. Communication other than face-to-face talk (e.g. 'literacies') involve distancing, prototypically of time and place in the case of printed texts (Meek, 1991; Barton, 1995); as discussed above the telephone is in a sense intermediately distanced.

A second element of 'decontextualization' is also termed by Cameron (1998) recontextualization. She uses the illustration of a child telling a narrative about an event that has happened in the past (for example as a part of school practices or a three-year-old's talk with a grandparent on the telephone). Here the focus is upon the

content of the topic as opposed to the mode of communication. In Cameron's illustrative examples the subject is not tied to the 'here and now' – to use the well known phrase of Brown and Belugi (1964) that captures the immediacy of subject typical of young children's talk.

A third element of recontextualization or decontextualization is the focus of Cameron and colleagues as described in her (1998) overview. She examines the ways in which young children on the telephone adapt their language in order to make it more effective. Cameron and Wang (1999) show how three- to eight-year-olds respond differentially when speaking on the telephone in comparison with face to face mode. Cameron and Lee (1997) found that three-year-old children produced more adequate referential information over the telephone than face to face. Cameron (1998) concludes that since the telephone "naturally" appears to enhance children's capabilities of producing appropriate communication strategies, this opportunity should be grasped more consciously in the pre-school curriculum.

I seek to problematize the notion that all these strands of decontextualization/recontextualization should be treated alike within an uninterrogated model of chronological, stagist development by which it is proposed (e.g. as by Snow, 1983) that the child begins in the primary linguistic situation of face-to-face talk and moves over the years into literacy. Of course a child's use of language in the early years becomes more sophisticated as the child matures, gaining experience of the world and social interactions. Nevertheless we must be careful not to conflate these significant progresses with an assumption that, for the young child, face-to-face talk is necessarily the only available, only comprehensible channel, the springboard as it were from which other forms of communication count rather as novel developments, adaptations etc.

My earlier investigations of the telephone talk of three- and four-year olds have revealed far greater proficiency in telephone discourse than previously uncovered by most research studies (see e.g. Gillen, 1998; 2000b; forthcoming.) In this paper I analyse data concerned with younger children, occurring before, if the stagist model is assumed, they could possibly have progressed far along the continuum towards 'literacy' (if defined as reading and writing). I seek to discover here whether that stagist model can be shaken through investigation of children from birth to their third birthday. Put very simply, my research question is then, 'how do very young children interact with telephones?'

Data Collection

At the time of beginning to collect the data made use of in this paper I had not yet focused the research questions which later impelled my PhD study. At this preliminary stage, having discovered the paucity of published research, I obtained data from a range of sources appropriate to an initial, exploratory rather than defined investigation. In the remainder of this paper I make use of data from four sources, freely acknowledging the opportunistic element of the collection strategy. Following is a brief explanation of these sources, organised into datasets identified hitherto by letters.

A An observation journal of my infant daughter's telephone-related behaviours, begun when she was 6 months' old. This was first in the form of notes, later supplemented by transcription of recordings made via a device designed to intercept telephone calls accompanied by contextual notes. All notes were written immediately on the scene.

B I also made notes and recordings of other young children, again related to their spontaneous telephone-related behaviours, whenever I was in a position to do so. This involved other children with whom I was familiar, for example while I was visiting their families.

C A home camcorder recording was made by my sister of a fourteen-month-old child playing with a telephone while visiting with her mother.

D While on a sabbatical visit to the UK to work with Nigel Hall, the Australian child language researcher Julie Martello investigated various facets of young children's talk (Hall and Martello, 1996). She and I conducted interviews of parents with young children concerning their telephone related behaviour in order to contribute to the work of colleagues and myself into young children's telephone behaviour at that time (see Hall et al., 1996).

In addition, I make reference to some of the research literature I have discovered which deals with telephone-related behaviour, sometimes tangentially to the papers' main fields of study.

Young children's telephone interactions: the first, prelinguistic year

Extracts from dataset 'A'

Entry1 Age 0' 6" (0 years 6 months)
K on floor while I was speaking on phone not paying her any attention. Suddenly I saw her smiling at me, silently, striving to make eye contact, looking a bit worried (as though I was talking to her – nobody else was there) as if my communication was perturbed.

Entry 3 Age 0' 6"
K sitting crying quietly when phone rings. She stops and only resumes when call is finished.

Entry 7 Age 0' 7"
K knocked phone off table during dinner. 20 minutes later returned to it while crawling on floor, picked up receiver and played with it vocalising 2 syllable vowel [aya] unlike usual babble. She brought receiver part nearer face than rest. Shortly after repeated [aya]. Phone was taken away from her. Shortly afterwards I heard her saying [aya] while engaged in a completely different activity.

Entry 10 Age 0' 8"
K vocalising sounds similar to 'hiya' and [ayo] while I talk on the phone.

Entry 11 Age 0'8"
I talk on phone near K. I hand phone to Conor (brother aged 2' 10") who talks. She 'joins in' with great excitement repeatedly vocalising a sound similar to 'hiya' with brief pauses.

Entry 12 Age 0' 9"
I talk on phone while feeding K. She begins to vocalise excitedly. When I say [papa] she says [baba].

Entry 13 Age 0' 9"
I held K while talking on phone to G (adult friend). I said "blow kisses" and she began to. G spoke to K – I held the phone to K's ear. He said "Hello Kathleen" and she chuckled in delight. Then sat still looking fascinated at phone.

Entry 14 Age 0' 11"
I phoned Nana Kitty (K's great-grandmother). I was saying "yeah... yes... yeah" and suddenly noticed that K began saying (in a phase when I was silent) "yeh... yeh... yeh" – with shorter intervals between the sounds than mine.

Entry 16 Age 0' 11"
K picks up phone holds it to ear but with outer part of the receiver to her ear and says, "yeah (3 second pause approx.) yeh (3) uh (3) yeah (3).

Trevarthen (1998) in his review of many years' study of communication in infancy and early childhood, explains his conclusion that children have an "innate need .. to live and learn *in* culture, as fish swim in the sea." In the first six months of life young children are involved in 'protoconversational' exchanges of expression with other persons that can have musical, body-dance or periodic game features. Dyads come to share their own ritualised communication routines, with the initiative shared between both partners as indeed is the enjoyment.

Babies from three months old will take an interest in an object a caregiver is focussed upon, well before she is too young to possess the motor skills to carry out for herself the exploratory play that will later characterise her actions upon objects (Ibid). Trevarthen is however at pains to extend our understanding of later exploratory play from a Piagetian perspective and to demonstrate that children incorporate socially gained knowledge of objects into their play.

In the example entries given above, baby K has shown awareness of features of human communication, that incorporate an emergent sense of the qualities and functions of the telephone. In the very first entry at the age of six months she has displayed, it appears, a sense that there is something different, indeed on this occasion apparently disturbing, about telephone in comparison with face to face talk. It is clearly odd that her mother is talking fluently and rapidly while nobody else is in the

room and yet not engaging her in 'protoconversation'. She strives to make eye contact and to smile to bring the situation to one with which she is familiar.

Before she is a year old she has learnt how to hold the telephone and that it is a conduit of voices that perhaps can say something that makes at least emergent sense (see her reaction to 'Hello Kathleen' in entry 13). Furthermore, she has learned so much about the nature of backchannels – those utterances whereby the speaker is supporting another's turn and urging her to continue (Stenstrom, 1994) – that she can make a very recognisable imitation in the appropriate context of having a telephone to one's ear, although I do not claim that at this time K, who has not yet conducted a truly linguistic conversation, fully appreciates the function of this communicative strategy. According to Vygotsky (1993), a child exercises such capabilities in interpersonal contexts, gradually internalising their full function and sense, as she actively recreates and transforms others' cultural practices.

Children's telephone talk in the second year

Dataset C

Fourteen-month-old Charlotte picks up a telephone. It looks just like a real telephone and is actually a discarded office instrument, but now lies on the floor among various other toys. Over the duration of a minute Charlotte picks up and holds the handset to her ear (the correct way up) several times. Each time she vocalises wordlessly before replacing the receiver.

In terms of motor behaviour Charlotte has learned something quite complex in lifting the handset and holding it correctly to the side of the head before replacing the receiver; of course this particular way of manipulating the object has been culturally transmitted rather than being an effect of random exploration. She also associates the action of holding the handset with the activity of speaking into it.

Even by the time children are beginning to utter their first words, they comprehend many aspects of telephone related behaviour and are keen to either demonstrate this themselves (albeit in particular characteristic ways, rather than to attempt to follow adult strategies, as I shall show) or at times to encourage others to do so.

Abridged from dataset D

[Paul, father of Robert, talking about his son's telephone related behaviour. At the time the interview was recorded Robert was 19 months' old.]

He very quickly, shortly after he learned to walk in fact, developed almost an obsession with telephones. He clearly learnt that when the bell went on the telephone, adults went and picked it up and so very quickly he had one or two toy ones lying around – he very quickly adopted similar sort of behaviours. So if the telephone rang he would run to his and pick it up and would then continue to spend time sitting with it clutched correctly...

He was about a year old when he first started to show signs of being aware that the telephone was a device for talking into. He then became quite forceful in wanting to listen to whoever was actually telephoning.... so for example if I go home from work I phone home to say 'I'm on my way' .. she [the child's mother] would put him on the telephone and he would say nothing initially but as he became more practised at having a real telephone in his hand he would start sort of grunting and things – the sounds that babies make...

"This then developed quite interestingly into his regularly now taking – not a toy phone – but a real telephone that he uses as a toy – he now regularly disappears with his telephone and you will find him sitting in a corner telephone to his ear talking to himself quite happily. This could last for five or ten minutes. His communication is still very poor. He has no words – he still makes a lot of baby sounds – but he's talking to the telephone. It's held to his head correctly and the intonations are there – it's not just gabble... He is conversing on the telephone not just making noises. he is on his own terms – all right I'm drawing inferences for this and attributing all sorts of characteristics to what's going on and I could be wrong but it appears to me that he's holding a conversation...

"When he actually gets the real telephone in his hands he's slightly put off by this because there is somebody on the other end communicating with him. I'm not sure yet he knows quite how to handle it.... I think he knows it's me... He does now respond in a way he wouldn't – say six weeks ago. Six weeks ago he would have been silent but for some very excited heavy breathing... that sort of heavy breathing that little children do. Now he talks in a sense. He responds. If I say something he responds. But it's all very limited compared to how he would respond if I were facing him across the room."

Even though Robert has not had a great deal of command of the linguistic code in his first eighteen months, he has shown a great deal of interest in the telephone. Two kinds of telephone-related behaviours are clearly differentiated in his father's account. Firstly, there is play telephone behaviour in which a toy is used with which to recreate aspects of telephone behaviour, in Robert's case here the cadences and intonations of telephone talk. Secondly, Robert has begun to use the actual telephone in a rather limited style communication that does however include turntaking; at the very least we are convinced by Paul's account that Robert knows he is interacting with a person via the telephone.

The Italian semiotician Mininni (1985) observed his own daughter's telephone-related behaviour from a young age. At the age of 13 months he noted that she would hold a telephone roughly correctly, making a brief vocalisation while doing so. Two months later she performed an accurate demonstration of lifting and dialling a telephone, performing this with either a toy or actual telephone and vocalise 'hello' at appropriate points.

Extract from dataset B

The mother of Morgan, then aged 1'0", was on the telephone to her mother – Morgan's grandmother):

Mother to grandmother:	*Ask her what a tiger says!*
Mother puts phone to Morgan's ear	
Grandmother:	*What does a tiger say, Morgan?*
Morgan:	*(short pause then growling sound)*

Less than one month later the game had evolved considerably. On this occasion Morgan (1' 1") held the telephone for herself.

Grandmother:	*What does the sheep say?*
Morgan:	*Baa*
Grandmother:	*I like the tiger. What does the tiger say Morgan?*
Morgan:	*(roaring sound)*
Grandmother:	*What does the cow say?*
Morgan:	*Moo (chuckles)*

These repetitive routines – language games with relatively fixed structures of participants and contexts – appear to be important elements of children's language development (Peters and Boggs, 1986; Crystal, 1996; Gillen, 1997). It is rare for them to be reported as occurring on the telephone, especially at such a young age. Morgan has demonstrated that she understands the ground rules of the game and can participate in them even when unaided by any non-verbal cues. Her ability to take turns is already evident; of course this is a skill extremely important to children's capability of participating in telephone conversations. (Veach, 1981, unpub. Gillen, 1998, unpub.)

Mininni (1985) drew attention to the skills evidenced in children's pretend telephone talk. At the age of 16 months, he noticed, his daughter was displaying considerable features of telephone discourse in pretence play, including identifying a pretence interlocutor, topicalization, and ritual formulation of typical opening and closing moves.

Extracts from dataset B

Morgan, aged 1' 9"
She began by carrying a real, disused phone out of her cupboard. For several minutes she sites in the middle of a crowded family gathering talking almost constantly on the phone. It is 'gobbledegook' with very fluent intonation. Very occasionally a recognisable word is heard: 'Conor' 'bye bye' 'baby' 'Georgia' and something that seems to resemble 'see you later'. After a loud 'bye bye' she looks around but resumes talking (gobbledegook) several times over the next 10 minutes.

Nadia aged 1' 10"
There is a new 'real' phone in the house (not connected). Nadia likes this more than her own toy phones. She often calls Matty, Bobby or Lisa on it – her parents' friends. Doesn't say much other than their names and 'pardon?' The use of the word 'pardon' surprises her parents as it's an expression they don't use. Nadia's mother surmises she probably picked it up from the childminder she visits part time. When put on the real connected phone (for example to the people mentioned above) she 'clams up'.

Mininni (1985) writes that children may find actual telephone talk more difficult than pretence talk and for a stage (he suggests probably between the age of two and four) may show more sophisticated discourse in the latter context. He found that a two year old child may be comparatively stilted in actual telephone dialogue, in comparison with when they are giving the appearance of one side of a telephone call in the pretence context. This appears to happen to Nadia as described above. Before quoting his proposed explanation I need to explain that he terms an imaginary interlocutor, i.e. in the play situation a "possible absentee" and an actual telephone interlocutor, in a two-way telephone dialogue, a "real absentee." This latter term at least is helpful in capturing such an entity as a child first experiences then in two-way conversations, a familiar presence who talks yet is absent.

> "At the beginning the "possible absentee", which the child addresses in his telephone play, is blended with the context in which s/he finds him/herself and therefore it's equally "real"; on the contrary, the existence of a "real absentee" causes trouble and it tends to block the child in monosyllabic utterances ("Yes", "No", "Hallo", etc.), because this person is an unreal voice, which breaks the experiential unity of the context interiorized by the child up to that point." (Mininni, 1985: 193)

As Mininni implies, play is a special mode of being unique to children, almost a further dimension into and out of which children can switch at will. In play, children are in a 'zone of proximal development' in which they can perform some feats beyond them 'in real life' (Vygotsky, 1967). A strong feature of this sociocultural model, for me, is the emphasis on the activity deployed by the child in her attempts to achieve mastery of a situation. The child is employing a play strategy to practice her way into competence of actual telephone interactions. The child is making use of the telephone routines she has witnessed as, most fundamentally, an observer, and, at this time to a certain extent (perhaps a lesser one?) as an actual participant in telephone calls, in this play practice. She is not of course out to imitate just what she sees, but is rather out to make it real and dramatic for herself as part of her mental play furniture: fun, colourful and flexible in range.

However, while I agree with Mininni then that observing pretence talk is of enormous significance in investigation of the development of young children's telephone discourse I have found problematic his hypothesis that pretence and actual talk will necessarily develop in "chiastic relation" to use his phrase. Earlier study of the pretence and actual telephone talk of three- and four-year olds did not find this relation (Gillen, 1998, unpub.) but I now find it receives some support in this study of children under two. As far as I am aware, a thorough study of the telephone talk (pretence and actual) of two-year-olds remains to be conducted, although I do possess some unanalysed exploratory data.

The following extract remains an unusual item in my collection, being a two-way conversation between myself and my daughter, speaking from different rooms in the same house, which becomes one-sided after I have left my phone.

Here I feel I may need to insert a paragraph in anticipatory self-defence. The reader may suspect that I as a researcher on children's telephone talk was guilty of 'training'

my daughter to an unusual degree. In fact she was already by this stage being discouraged from using the telephone, owing to her skill in pressing the redial button from 1' 4" onwards. The circumstances of the talk between us on this occasion was unique; my conscious purpose at the time was to check some recording equipment, later used in data collection for a study elsewhere.

Extract from dataset A

extract from Entry 41 K 1' 7"
(transcribed from tape recording)

K	Mother (researcher)
	Hello?
yeh	
	yes is that Katie
Katie	
	Katie yes. Are you going to come upstairs and we'll read the boys stories?
yeh	
	yes
choo choo	
	OK you come upstairs and we'll read choo choos OK?
	Yes?
	Right let's say bye bye then
	Bye bye?
	[goes]
Morgan	
[pauses]	
Morgan	
[noises]	
(?)	
[noises]	
(?)	
Jackie	
[pauses]	
Bye bye	

In the extract given above, K. has demonstrated a number of skills which some earlier research by developmental psychologists had failed to find in much older children. Particularly remarkable is the development of topic displayed in the 'choo choos' response to her mother's suggestion about reading a story. ('Choo choos' was K's term for books featuring Thomas the Tank Engine.) When left alone she appears to be seeking or identifying a possible interlocutor, although it is impossible to tell if on

this occasion she is creating a pretence interlocutor or genuinely expecting or at least seeking one of the named familiar people to come onto the line.

Extract from dataset A

Entry 48 K 1' 11"
K. picks up toy phone.
Hello
Hello Nana
um
um
oh
[hangs up]

This call shows the beginnings of imparting a clear structure to a telephone call, a phenomenon I have shown to be overwhelmingly demonstrated in the pretence and actual talk of three-year-old children (Gillen, 2000, forthcoming). It is also supported in the highly limited quantity of telephone talk reported by other child language investigators. For example, Ervin-Tripp (quoted by Peters and Boggs, 1986: 83) mentions hearing an eighteen-month-old say on the telephone (we are not told whether or not it was a toy) "Hi fine bye." This is a display of many of the essential features of telephone discourse identified by Hopper (1992) building upon the work of earlier ethnomethodological studies. K has in place the initial 'hello'.. Schegloff (1968) explains that because of the sound-only qualities of the channel telephone talk has compulsorily to begin with an opening (in response to a ring). Further, mutual identification has to take place before a topic can be introduced (Schegloff, 1979); 'Nana' of course effectively identifies both parties simultaneously usually to a satisfactory extent. K. does not initiate a topic, but does display the use of conversational fillers, used with appropriate gaps, a significant and as is shown by the much of the data discussed above, apparently an early accomplishment in children's (imitative/pretence) telephone discourse. K. accomplishes the final act of closure (Schegloff and Sacks, 1973) but omits the verbal closing demonstrated in Ervin-Tripp's sample quoted above.

Conclusions

Trevarthen, (1998: 87) wrote:

> "Watching and listening to infants and toddlers, I have come to the view that being part of culture is a need human beings are born with – culture, whatever its contents, is a natural function. The essential motivation is one that strives to comprehend the world by sharing experiences and purposes with other minds, and that makes evaluations of reality, as not as a scientist is trained to do by experimenting to eliminate differences of understanding so that reality can be exposed free of human attitudes and emotions, but in active negotiation of creative imaginings that are valued for their human-made unreality. Culture, with language and music as media expressing the need, is an invention of human thoughts, an ordered fantasy that communities of people have agreed to endow with meaning."

Trevarthen's emphasis on the innate need to be part of a culture is for me useful in interpreting young children's behaviour with telephones as reviewed above. One clear finding from my data is the endowment of cultural meaning to the telephone from infancy. As many researchers have shown previously, play is a highly significant aspect of how children work to actively make sense of the world. Vygotsky (1967: 10) wrote: "In play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself." This sentence brings vividly to mind three- and four-year-olds' sociodramatic play incorporating telephone use e.g. when they pretend to telephone the emergency services or suppliers of goods and services (Hall et al., 1996; Gillen and Hall, forthcoming). But it also brings to my mind the image of Charlotte, before she can walk or talk her first 'real' words imitating the actions of holding a telephone conversation, (dataset C) or the intonations and outlines of fillers and backchannels so common in telephone conversations (Stenstrom, 1994) clearly witnessed and reproduced by many of the children as illustrated above.

The data discussed here is limited however in that it is from a relatively homogeneous social group. An investigation which sought to unpick aspects of telephone discourse that are affected by the intrinsic qualities of the channel from those culturally varying modes of etiquette that specific societies have designed would require cross-cultural comparisons. Telephone talk is a mode of action. Approaches to talk which make sense of this may potentially provide theoretical frames in which to continue to explore pretence and dialogic talk on the telephone. Perhaps ultimately more useful than ' literacies' may be the broader term 'discourses' as Gee (1996:viii) suggests:

> "Discourses, then, are ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing that are accepted as instantiations of particular roles or 'types of people'....Discourses are ways of being 'people like us'. They are 'ways of being in the world'; they are 'forms of life'. They are thus, always and everywhere social and products of social histories."

Learning to talk on the telephone is much more than understanding how to operate a particular piece of technology. We cannot speak in precisely the same ways as we do when someone is standing in front of us. At the age of six months, Kathleen realised that something unusual was going on when I stood and talked yet not to her. Babies notice that a sudden ring is enough to make an adult interrupt almost any other activity and talk into the phone, adopting a special style of talk – a discourse, a way of behaving. From infancy they are conscious then of this discourse that incorporates the use of a technology. They do not wait until they can talk fluently to begin to actively make sense of this discourse by engaging with it in characteristic ways including pretence.

To summarise, I have endeavoured to construct a case within a sociocultural perspective for the following:

- the importance of a discourse-based approach to child language research that is broad in two ways: in extending beyond the command of the linguistic code to a conception of what is required for communicative competencies and which

recognises speech itself to be a kind of literacy, as any other discourse making use of the manipulation of symbols (Lemke);

- a questioning of working assumptions that can underlie research methodology predicated upon a linear model of progression that conflates different aspects of development and measures them against adult norms (themselves culture-blind constructions) on a deficit basis;

- the recognition of the active nature of children's engagement with their world even when their motor and linguistic capabilities are immature;

- consequent on the above, a regard to the significance of the location of discourse development in social practice as opposed to centring on the individual's cognitive processes (see Gillen, 2000a);

- a suggestion that among all the understandably exciting opportunities to study how novice users including children interact with new technologies, we do not overlook the telephone, with its ever dynamic role in our culture (see Rakow, 1992; O'Keefe and Sulanowski, 1995).

We should not forget that in its early days the telephone attracted as much in the way of hostility and utopian hopes as the internet today. To conclude with an example of the latter attitude:

> "In the telephone we have the most perfect means of communication which we know, immediate and perfect human speech, with all its tones and inflections and the ability by interchange of conversation to remove misunderstandings. If only we will use it, not alone will it benefit the industry of the nation, but we shall be making a definite step towards reducing international jealousies and fears and increasing the good will without which there cannot be peace on earth." (Frank Gill, President of the British Institute of Electrical Engineers, 1922, quoted by Robertson, 1948: 293)

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References

Barton, D. (1995) *Literacy: an introduction to the ecology of written language*. Oxford: Blackwell.

Beck, E.M. (ed.) *Bartlett's Familiar Quotations 14th edn*. London: Macmillan.

Bordeaux, M.A. and Willbrand, M.L. (1987) 'Pragmatic development in children's telephone discourse' *Discourse Processes* **10** (3) 253-266.

Brown, R. and Belugi, U. (1964) 'Three processes in the child's acquisition of syntax.' *Harvard Educational Review* **34** 133-151.

Cameron, C.A. (1997) 'Bridging the gap between home and school with voice-mail technology' *The Journal of Educational Research* **90** (3) 182-190.

Cameron, C.A. (1998) Telephone communication enhances recontextualized language. Paper presented in symposium "The emergence of academic skills: on the importance of home experiences" at Annual Meeting of the Canadian Psychological Association, Edmonton, AB, June.

Cameron, C.A., and Lee, K. (1997) 'The development of children's telephone communication' *Journal of Applied Developmental Psychology* **18** 55-70.

Cameron, C.A., & Wang, M. (1999). 'Frog, where are you? Children's narrative expression over the telephone' *Discourse Processes*. **28** 217-236.

Crystal, D. (1996) 'Language play and linguistic intervention' *Child Language Teaching and Therapy* **12** (3) 328-344.

Donaldson, M. (1987) *Children's Minds*. London: Fontana Press.

Foster, S. (1990) *The Communicative Competence of Young Children*. London: Longman.

Gee, J.P. (1996) *Social Linguistics and Literacies: ideology in discourses. 2nd edn*. London: Taylor and Francis.

Gillen, J. (forthcoming) Recontextualization: The Shaping of Telephone Discourse in Play By Three- and Four-Year-Olds. *Language and Education*

Gillen, J. (2000a) Versions of Vygotsky. *British Journal of Educational Studies* **48** (2) (183-198).

Gillen, J. (2000b) '"It's not really time for going home," Three- and four-year-old children learning to talk on the telephone' in M. Coulthard, J. Cotterill and F. Rock (eds) *Working with Dialogue: Selected Papers from the 7th IADA Conference, Birmingham 1999*. Tubingen: Max Niemeyer Verlag GmbH. (pp. 226-240).

Gillen, J. (1998) An investigation into young children's telephone discourse. unpublished PhD thesis. The Manchester Metropolitan University.

Gillen, J. (1997) '"Couldn't put Dumpy together again": the significance of repetition and routine in young children's language development,' in L. Abbott & H. Moylett, (eds) *Working with the Under Threes: responding to children's needs. (Early Interactions, volume 2).* Buckingham: Open University Press.

Gillen, J. (1996) The development of young children's ability to use the language of telephone discourse. Paper presented at British Educational Research Association Annual Conference, Lancaster University. 12th September.

Gillen, J. & Hall, N. (2000, forthcoming)"Hiya, Mum!"an analysis of pretence telephone play in a nursery setting. *Early Years* **21** (1).

Goffman, E. (1981) *Forms of Talk.* Oxford: Blackwell.

Hall, N., Gillen, J., and Greenall, R. (1996) '"Don't cry, I ring the cop shop": young children's pretend telephone behaviours' in N. Hall & J. Martello, (eds) *Listening to children think: exploring talk in the early years.* London: Hodder and Stoughton.

Hall, N. and Martello, J. (eds) (1996) *Listening to children think: exploring talk in the early years.* London: Hodder and Stoughton.

Holmes, J. (1981) 'Hello-goodbye: an analysis of children's telephone conversations' *Semiotica* **37** (1-2) 91-107.

Hopper, R. (1992) *Telephone Conversation.* Bloomington, Indianapolis: Indiana University Press.

Lankshear, C. and Knobel, M. (1997) 'Literacies, texts and difference in the electronic age' in Colin Lankshear (with J.P. Gee, M. Knobel and C. Searle) *Changing Literacies.* Buckingham: Open University Press. pp. 133-163.

Laurier, E. (forthcoming) 'Why people say where they are during mobile phone calls' *Environment and Planning D: Society and Space.*

Lemke, J.

Lloyd, P. (1990) 'Children's communication' in Grieve, R. and Hughes, M. (eds.) *Understanding Children.* London, Blackwell.

Lloyd, P. (1991) 'Strategies used to communicate route directions by telephone: a comparison of 7 year olds, 10 year olds, and adults' *Journal of Child Language* **18** (1) 171-189.

Meek, Margaret (1991) *On Being Literate* London: Bodley Head.

Mininni, G. (1985) 'The ontogenesis of telephone interaction' *Rassegna Italiana di Linguistica Applicata* **17** (2-3) 187-197.

O'Keefe, G.J. and Sulanowski, B.K. (1995) 'More than just talk: uses, gratifications, and the telephone' *Journalism & Mass Communication Quarterly*. **72** (4) 922-933.

Ong, W. (1982) *Orality and literacy: the technologizing of the word*. London: Methuen/Routledge.

Peters, A.M. and Boggs, S.T. (1986) 'Interactional routines as cultural influences upon language acquisition' in B.B. Schieffelin and E. Ochs, (eds) *Language socialization across cultures*. Cambridge: Cambridge University Press.

Rakow, L. (1992) *Gender on the line: women, the telephone, and community life.* Urbana, IL: University of Illinois Press.

Robertson, J.H. (1948) *The Story of the Telephone*. London: The Scientific Book Club.

Rutter, D. (1987) *Communicating by Telephone.* Oxford: Pergamon Press.

Schegloff, E. (1968) 'Sequencing in conversational openings' *American Anthropologist* **70** (6) 1075-1095.

Schegloff, E. (1979) 'Identification and recognition in telephone conversation openings' in G. Psathas (ed.) *Everyday language*, New York.

Schegloff, E. and Sacks, H. (1973) 'Opening up closings' *Semiotica* **7** 289-327.

Snow, C. (1983) 'Literacy and language: relationships during the preschool years' *Harvard Educational Review* 53 165-189.

Stenstrom, A.-B. (1994) *An introduction to spoken interaction.* London: Longman.

Trevarthen, C. (1998) 'The child's need to learn a culture' in M. Woodhead, D. Faulkner and K. Littleton, (eds) *Cultural worlds of early childhood*. London: Routledge.

Veach, S.R. (1981) Children's telephone conversations. unpublished PhD thesis. Stanford University.

Vygotsky, L.S. (1967) 'Play and its role in the mental development of the child' *Soviet Psychology* **5** 6-18.

Vygotsky, L.S. (1993) 'Introduction: fundamental problems of defectology' in Vygotsky, L.S. (editors: R. Rieber and A. Carton) *The Collected Works of L.S. Vygotsky volume 2 The Fundamentals of Defectology (abnormal psychology and learning disabilities)* New York: Plenum Press.

Warren, A. and Tate, C. (1992) 'Egocentrism in children's telephone conversations' in Diaz, R. and Berk, L. (eds.) *Private Speech: from social interaction to self-regulation.* Hillsdale, N.J., LEA.