Code-switching amongst bilingual (Punjabi-English) nursery school children: co-operation and conflict in relation to familiarity

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ABSTRACT

The study examines whether code-switching amongst bilingual children aged 4+ years has social significance. Twelve subjects were selected and recorded, keeping the setting and topic constant, each with three different interlocutors, (a) a good friend (Major contact) (b) a friend of intermediate acquaintance (minor contact) (c) a comparative stranger (null contact), making 36 dyads.

Switching occurred more markedly between minor contacts, whereas good friends and comparative strangers preferred the use of one language. The social significance of the code-switching was interpreted using concepts from mathematical game theory and the 'psychological states' of co-operation and conflict from interpersonal behaviour research. Analogies were drawn between the conflict which choice of code demands of young bilinguals and the 'evolutionarily stable strategy' combining co-operation with limited conflict in intraspecies encounters.

A conversation-acts and sequencing analysis showed that good friends were significantly more 'sociocentric' than either minor or null contacts. An intermediate state of familiarity seems to be the 'watershed' where conversational conflict or defection is displayed and then resolved in increasing manifestations of co-operation as young children interact more. The conflict is expressed in the 'game' played out between the bilinguals' two languages in a conversation. The content of some utterances may display conflict, particularly in monolingual stretches. The co-operation takes several forms, (a) a trend towards language homogeneity as a conversation progresses, (b) moving from minor to Major levels of familiarity, conversational turns containing code or content defections are significantly reduced (p< .01), (c) as familiarity increases more conversational turns are linked into sequences, (p< .01 between Major and minor contacts) (d) as familiarity increases conversational cohesiveness improves in that pausing is progressively reduced (p< .01 between Major and null contacts).

Groups-of-four were no less skillful than dyads, neither in their collective movement towards one language use for each conversation, nor in their ability to form sequences of turns.
CHAPTER 1
INTRODUCTION

The thesis begins by outlining the Theoretical orientation of the study in Chapter two. The selection of material to be discussed in Chapter three, which has the general title of Child language, is explained and the background to the experimental design chapter, which comes somewhat later at the end of the introductory chapters, is given. The primary concern was to provide a framework in which code-switching/mixing which had social significance could be experimentally examined. A conversation-acts analysis (C-acts, Dore et al. 1978) which later became a substantial part of the analysis of results and is introduced in Chapter three, Part three, is not mentioned in the theoretical orientation since it was not a motivation for the experimental design. Rather, it was applied in response to hypotheses formulated after the data had been collected. The first point covered in the theoretical orientation chapter is an extension of the idea of a social linguistic variable to a conceptually different position from the regular usage of the term and the emphasis on a syntagmatic rather than a paradigmatic analysis. The social meaning of code-switching is discussed, that of adults only briefly as it seems likely that child code-switching may differ from the adult pattern. The variables frequently mentioned as affecting choice of code are setting, topic and interlocutor. This study is set up as an experiment in that attempts are made to control all the variables except for one, the interlocutor. Interlocutors systematically chosen to represent three levels of familiarity constitute the independent variable. The notion of a speech community is taken to its lowest conceptualization as when two children meet and interact. Sociometric techniques are discussed as a methodology for finding interlocutors who vary in their degree of familiarity with each other. A note on combining experimental and ethnographic techniques is included to suggest how experiments can be done in contrived but seemingly natural conditions. Finally the motivation
for including a study of the bilingual speech of groups-of-four is discussed.

Chapter three, Child language, is divided into three parts. The first part, written in the main before the research was carried out, is a fairly lengthy discussion of the background literature on Early child bilingualism. An attempt is made to establish the youngest age at which children could be chosen to take part in the research project. The question posed was: 'At what age would bilingual children be able to discriminate two lexicons and two sets of syntactic rules and have the possibility of expressing themselves appropriately in either language given that circumstances placed constraints on the choice of code?' In order to answer this question studies are reviewed which look at independent development or early mixing of the bilingual's two languages, both of the lexicon and of the two sets of syntactic rules, together with the emergence of translation ability. Theoretically the children selected for the study had to be sufficiently advanced on the path to bilingualism that a choice was possible for them to express any message in either of the languages. It was concluded that bilingual children of nursery school age, about four years, should be able to fulfil these conditions.

It is likely that the incidence of code-switching or code-mixing in a community may obscure the fact that the bilingual's two languages can be used without one language interfering with the other (I am concerned with levels above the phonological level) and so a discussion of some studies relating to code-switching which arises from the 'social context' aside from the cognitive problem of differentiating the languages, is presented in Chapter three, Part two, under the heading Sociolinguistic switching.

The third part of Chapter three, Conversational competence of nursery school children, briefly presents a number of perspectives on how competent children of about four years old are likely to be in holding a conversation if they are presented with a novel situation requiring joint attention. Of particular interest is whether their speech is expected to be sociocentric or egocentric, that is to what extent is it linked-in to the speech of another in a previous turn or
merely a monologue accompanying the activity? For the purpose of examining turns forming part of a sequence and also to enable a qualitative comparison of conversations, a conversation-acts analysis is proposed.

The two chapters following the one on child language are both concerned with co-operation and conflict, from the psychological perspective in Chapter four and then using concepts from mathematical game theory and evolutionary biology in Chapter five. Although these chapters appear before the results section, they were researched and written after the data had been analysed and patterns had begun to emerge, in an attempt to give a framework within which the results could be understood. Chapter four, Co-operate or conflict, concepts from interpersonal behaviour research, is a departure into the psychological literature of personality theory, in particular, circumplex models of interpersonal behaviour. A suggestion is made, for which support can be found in recent work on circumplex arrangements of behavioural traits and states, that instead of viewing behavioural states as plotted around the two orthogonal axes of Dominance-Submission and Love-Hate a single axis of Co-operation-Conflict is a useful conceptualization, where Co-operation is a blend of Love and Submission and Conflict is a blend of Dominance and Hate.

Chapter five, Co-operate or conflict, mathematical game theory as a model, in the first part, proposes that the two languages used by the bilingual can be viewed as players in a game, to which mathematical game theory can be applied, resulting in a number of predictions about the incidence of code-switching. Where the observed code-switching fails to match the predictions, explanations can be provided in terms of the 'psychological states' of co-operation or conflict, which were the subject of Chapter four. A further analysis, which can be applied to conversational turns, is suggested where bilingual language users are considered as players in a game and turns can be marked as co-operation, where no code switching is involved, or defection, where there is a code-switch at the beginning or in the middle of a turn. The notion of a dynamic collective rationality (Rapoport 1966) predicts that conversational behaviour
will become increasingly co-operative, which in terms of child language means a progression towards language homogeneity as individuals interact more (i.e. become friends). A different interpretation of dynamic collective rationality leads to the conclusion that, amongst adults, co-operation need not be equated with language homogeneity.

Another application of mathematical game theory in evolutionary biology, the subject of the second part of chapter five, is concerned with intraspecies co-operation and restraint in conflict. Some recent animal behaviour research considers the evolution of co-operation within species, when the choice is to co-operate with an interactant or to defect. A play-off between various types of strategists using computer simulations (Axelrod & Hamilton 1981) has found that an evolutionarily stable strategy is TIT-FOR-TAT (TFT), which co-operates on the first move then does whatever the opponent does, always being prepared to return to co-operation. It is possible that TFT could be transferred to the bilingual situation and provide a model for code-switching which ultimately leads to increasing proportions of co-operation as individuals repeatedly interact. Asymmetric contests from animal behaviour which could provide a model for the polarization towards single-language dominance are also discussed, in section 5;3.

Experimental design and method is the subject of Chapter six. The investigation was conducted in two parts. The first part dealt with the bilingual speech of dyads. It was carried out in two Leeds nursery schools (Brudenell and Dewsbury Rd. schools). The second part, for groups-of-four, was done in Southall, London borough of Ealing (Glebe, Havelock and Wolffields schools). The areas differ in that Punjabi/English bilinguals in Southall find considerably more support for their Punjabi mother tongue in the local community, where Punjabi speakers are in the majority. In the first part, conversations of dyads, 12 nursery school children who were bilingual in Punjabi and English were selected as experimental subjects. Using sociometric techniques three contacts were found for each subject. The three contacts differed in their degree of familiarity with the subject. A Major (M), a minor (m) and a null (n) contact were found
for each subject. The twelve subjects were recorded in conversation with their M, m, and n contacts, in randomized order, making a total of 36 dyadic conversations of about 5 minutes each. The children were left alone in a room and they were given the task of feeding one of a number of pet animals or birds. In the second part of the study, eight groups-of-four children composed of mixed Major and minor contacts were recorded in situations similar to those for the dyads, i.e. the four alone in a room with the task of feeding two caged birds, but in this case the children were videoed as well as tape recorded. The groups-of-four part of the study was designed to test a notion that four children would have more difficulty than two in resolving the dilemma of each having the possibility of speaking two languages.

The conversations, a total of 251 minutes recording time in all (200 minutes for the 36 dyads and 51 minutes for the 8 groups-of-four) were transcribed using the conventions set out in the Appendix (section 10;1).

A conversation-acts coding was used to classify utterances. The transcription forms sections 10;2;1 and 10;2;2 of the appendix.

The Results, Chapter seven, consists of three main parts, with subdivisions. Differences between the three sets of familiarity levels for dyads, Major contacts, minor contacts and null contacts were initially of most interest. The data from the groups-of-four has not been subjected to such extensive analysis as the dyadic data. The first analysis (section 7;1) is based on a lexical count of types and tokens and measures of the amounts of pausing and laughter in each conversation. Developing from this section are two techniques for plotting the conversations on graphs, conversation profiles, section 7;1;3, and conversation mapping, section 7;1;4. The second part of the results chapter, section 7;2, is an analysis of the dyadic conversations based on co-operation and defection following a mathematical game theory model. Two types of defection are considered, those involving code-switches and those where the content of the message displays defection. Finally, in section 7;3, a conversation-acts coding, which accompanies transcription in the appendix, enabled the application of a sequencing analysis. C-acts
were totalled for each conversation in order to compare the means for the sets, Majors, minors and nulls, and to compare dyads with groups-of-four.

The main findings, reported in the first part of the results, are that code-switching/mixing is more prevalent for minor contacts, i.e. at an intermediate state of friendship, than for either Major or null contacts. The conversation profiles (section 7;1;3 and Graphs 7;1 to 7;23) show that when conversationalists employ both codes, the switching behaviour of one participant tends to follow a similar pattern to that of the partner, with some exceptions which can be explained in terms of the special characteristics of the interactions. Conversation mapping graphs (section 7;1;4 and Graphs 10;1 to 10;32) were most useful as working representations on which to mark conversational code-defections. Some features of the conversations which this study does not examine in depth, such as turn-taking and the distribution of pauses and laughter, are highlighted in the conversation mapping.

The analysis of turns for co-operation and defection (section 7;2) showed overwhelmingly more co-operative moves than defections at all levels of familiarity. But there were more code-defections for minor contacts than either Major or null contacts, although differences failed to reach significance. However, when defection by content of message and defection by code were added together, then minor contacts showed more defections overall than either Major or null contacts to a highly significant extent. Code-defection and content defection seemed to be in roughly complementary distribution, so content defection was most often displayed in the monolingual conversations of these bilinguals.

Another type of co-operation between conversationalists emerged when, utilizing the conversation-acts analysis, turns were labelled as 'linked' or 'isolated' depending on whether they formed part of a sequence with other turns or not (section 7;3). Means of percentages of linked turns per conversation were compared for sets of Major, minor and null contacts. Conversations for these sets showed that higher percentages of linked turns (i.e. those turns forming part of a sequence) co-occurred with increasing degrees of familiarity.
between participants. Major contacts were more linked-in (or sociocentric) with their partners than minor or null contacts to a highly significant extent. Some dyads for null contacts showed particularly low percentages of linked turns, but the difference between the sets of minor and null contacts was not significant.

Bar graphs plotted for the means of C-acts for sets of Majors, minors and nulls and groups-of-four were found to be very similar, confirming that the recording situations had been comparable. The graphs for some individual dyads which exhibited very low percentages of linking (all null contacts) showed different ranges and proportions of C-acts from those shown in the graphs-for-means.

The Discussion, Chapter eight, begins with two analyses in the game-theoretic framework. The first, section 8;1, considers languages as players on the model presented in Chapter 5;1;2. The conclusion is that it is normal to introduce linguistic conflict at an intermediate stage of familiarity and that generally this conflict co-exists with co-operation when speakers can understand each other. The overall pattern for dyads and groups-of-four is to resolve the two-language dilemma in a movement towards language homogeneity. A comparison is made with Le Page's (1985) description of diffusion and focussing.

The second analysis, 8;2, considers people as players and is based on the model of the Prisoner's Dilemma game which was introduced in section 5;1;3 in the context of a rational solution and again in sections 5;2;4 and 5;2;5 in relation to an evolutionarily stable strategy. The conclusion is that young children engage in TFT behaviour which leads to acceptance of the collectively rational solution of increasing the proportions of C following CC moves as their conversations and friendships progress i.e. as they interact more. It seems most likely that the TFT strategy has been genetically programmed in humans and is nurtured in the nursery school environment and presumably in the homes and community of the young bilinguals studied here.

The next section, 8;3, considers some examples, first, of metalinguistic awareness and preference for language homogeneity, followed by instances of the type of 'conversational' code-switching described by Gumperz (1982) which could be seen as co-operation (C

- 7 -
moves) in that it demonstrates an understanding of both cultures. This conversational switching is representative of the higher order of dynamic collective rationality, described in section 5.1.3, where speakers can demonstrate their co-operativeness by switching between the languages of the social groups to which they feel affiliated.

Chapter 8 concludes with a discussion of the patterning of C-acts in dyads and groups-of-four and the linking of turns into sequences. Linking is viewed as an expression of Piaget's (1926) sociocentrism developing out of egocentrism, or as another form of co-operative behaviour. There is some evidence from the groups-of-four data that the maximum number of children who can normally manage to actively participate in this sort of situation is three.

The major findings of the study are summarized in the Conclusions, Chapter 9, with cross references to different parts of the thesis.
CHAPTER 2
THEORETICAL ORIENTATION

The design of the present study is a response to a number of disparate observations and research findings in sociolinguistics and early child bilingualism. The ideas which provided the background to the study have been taken from the work of others which is acknowledged but has not been reviewed in detail. The study developed from extending the notion of a sociolinguistic variable through the levels from phonological to syntactic and further to the level of a language or register. Then an interest in a syntagmatic rather than a paradigmic analysis led to a change in perspective taking the original idea to a conceptually different position from that of a sociolinguistic variable. An examination of developing bilingualism in children (reviewed in Chapter 3, Part 1) indicated that by nursery school age (4+), bilinguals are generally able to separate their two codes, so this seemed to be a good place to start looking for code-switching/mixing which had social significance. The social meaning of adult switching/mixing is covered only briefly in this chapter (section 2;2) since it may not provide an interpretation for the phenomenon in children's speech. The general orientation is to aim for objectivity wherever possible in the hope of reducing the extent to which the results would simply represent the researcher's preconceptions.

2;1 SOCIOLINGUISTIC VARIABLES - PARADIGMATIC AND SYNTAGMATIC ANALYSIS

Sociolinguistic variables, as opposed to linguistic variables, carry social significance. The use of one variant rather than another conveys social meaning. Lavandera (1978a) discusses the nature of sociolinguistic variables, commenting that phonological variables such as (r) in Labov's N.Y. city study (Labov 1972a) are the simplest to deal with because they have no referential meaning. Morphological and syntactic variables, however, suffer from the problem of having referential as well as stylistic meaning. Generally it has been
accepted by sociolinguists, she says, that the variants studied above
the phonological level should have the same referential meaning, but
this need not be the case and indeed is too restricting. In a
paradigmatic analysis it is the alternatives (variants of the
variable) which are emphasised. Table 2; 1 gives examples of some
variants which have been studied at different levels.

TABLE 2; 1
Examples of variants of sociolinguistic variables studied at various
levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological</td>
<td>(r):[r] contrasts in Bokmål - Ranamal</td>
</tr>
<tr>
<td></td>
<td>(r): o (Labov 1972a)</td>
</tr>
<tr>
<td>Morphological</td>
<td>presence/absence of copula in B.E.V.</td>
</tr>
<tr>
<td></td>
<td>(Labov 1972b)</td>
</tr>
<tr>
<td>Syntactic</td>
<td>indicative/ subjunctive in Spanish</td>
</tr>
<tr>
<td></td>
<td>(Lavandera 1982)</td>
</tr>
<tr>
<td>All levels</td>
<td>Punjabi/ Hindi (Gumperz 1964)</td>
</tr>
</tbody>
</table>

The notion of sociolinguistic variable could be taken a step
further than the syntactic level to that of language or register.
Bilingual speech is convenient to study because the formal changes
are more clearly apparent than for registers. Consider two bilinguals
who are engaged in a code-switched conversation. We can think of a
chunk of Punjabi or a chunk of English as variants of the language
variable. It is not, however, of interest to know, in the
paradigmatic sense, how a particular stretch of Punjabi may have been
expressed in English i.e. its translation, although it is important
to know that the speaker can produce the other language equivalent
utterance and thus that the choice is really possible. Instead we
will look along the length of the conversation, in a syntagmatic
analysis, at how and in what proportions the variants English and
Punjabi are strung together. A difference between this treatment and
previous use of the term sociolinguistic variable is that in this case the notion of variant is conceptually different.

2.2 SOCIAL MEANING IN ADULT CODE-SWITCHING

One type of interaction where code-switching is very likely to be found is amongst members of groups living in an urbanized area who use a minority language in the home and a majority language in their interactions with the larger community (Gumperz 1982 p.64). The phenomenon has been largely studied with adults. Gumperz (1982 p.59) defines code-switching as 'the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems'. According to this definition code-switching can take place within a single sentence. Di Sciullo et al (1986 pp. 1-2) distinguish inter-sentential code-switching which, they say, is more typical of diglossia situations, from code-mixing. The latter is 'a form of linguistic behaviour which produces utterances consisting of elements taken from the lexicons of different languages.' Borrowing is seen as a related phenomenon, but in this case the borrowed item would generally be phonologically adapted to the borrowing language. In addition it may be morphologically adapted and speakers will often have intuitive knowledge about the status of the borrowed word in the lexicon. Whether a base-language equivalent is known to speakers and whether the item is in common use should also be considered in classifying 'borrowed' words.

Different interpretations of switching/mixing appear in the literature. One view expressed by Labov (1971) is that it is random and meaningless. Others attribute a complex social meaning to the phenomenon (Gumperz 1976, 1982; Agnihotri 1979)

Labov believes that the kind of variation seen, for instance, in the code-mixing which has been observed in the speech of N.Y. Puerto Ricans, is random. He comments on an example of this Spanish/English mixing (1971 p. 457):

So far ... no-one has been able to show that such rapid alternation is governed by any systematic rules or constraints and we therefore must describe it as an irregular mixture of two distinct systems.
Labov is led to make this claim, says Gumperz (1982 p.70), because of an implicit definition of the term 'social' as limited to phenomena showing statistically predictable distributions within extralinguistically defined human groups.

In contrast, Gumperz' own work in the ethnographic tradition employs a definition of social which is expressed in terms of sociological role theory. A listener is seen as assigning a speaker to social categories, placing him within the range of known social categories and assessing the degree to which they share social background. Code-switching/mixing is seen as a communicative resource, having a social meaning which speakers and listeners agree upon. The social meaning is, however, complex. Gumperz has shown qualitatively (Gumperz 1982, Chapter 4) that members of the community can agree on interpretations of switching in context and on categorizing others on the basis of their switching, so there must be some regularities and shared perceptions on which these judgements are based.

It is the type of code-switching referred to as conversational as opposed to situational which is of particular interest. In the latter case there is an almost one-to-one relation between language usage and social context and each variety has a distinct place or function in the local speech repertoire. Conversational code-switching, on the other hand, is of greater sociolinguistic significance, as it displays a much more complex relationship of language usage to social context. Conversational code-switching occurs in conditions of change, Gumperz says, where group boundaries are diffuse, norms and standards of evaluation vary and where speaker's ethnic identities and social background are not matters of common agreement. Speakers and listeners are seen as subconsciously employing and interpreting the social correlates of bilingual conversations. The way that a person switches and uses borrowings can reveal social background and attitudes. Bilinguals are, however, cautious about switching on first meeting with another bilingual before knowing something about the other person's social background and attitudes. Switching in these
circumstances could lead to serious misunderstanding, claims Gumperz (1982 p. 69).

A different interpretation of the social significance of code-mixing was given in a study of the language of adolescent Sikh immigrant children in Leeds. Agnihotri (1979) found a complex and unpredictable code-mixing of Punjabi and varieties of English. An 'acts of identity' analysis (Le Page 1975) was used to describe the social processes accompanying the linguistic ones. A complex sociolinguistic model would be required to account for the variability but the switching/mixing is considered neither random nor meaningless.

There is general agreement that analysis of bilingual interaction reveals a difficulty in predicting exactly when switches will take place, hence their apparently random nature. Most success in charting constraints on switching has been in the case of fairly stable bilingual populations (Kachru 1978; Valdés Fallás 1976).

In a study of Hindi/English code-switching, Verma (1976) sees bilinguals' switching as patterned and predictable on the basis of topical and situational features. Speakers are seen as producing a chain of codes and ways of organizing these varies from context to context. It was this observation that led me to think of the possibility of syntagmatic sociolinguistic variables (see section 2;1).

2;3 SOCIAL MEANING IN CHILD CODE-SWITCHING

Adolescent Punjabi/English bilinguals in an urban area have been shown to mix and switch codes (Agnihotri 1979). Young bilingual children also mix and switch. This may occur because the child is incapable of separating the two languages, in which case it is a function of development, or it may arise because the child has alternative lexicons and alternative sets of syntactic rules available to him and he chooses from one of the alternatives, variably, sometimes sentences/phrases/lexical items are chosen from Punjabi and sometimes from English. It should be possible by examining studies of early bilingual development to discover when a
child exposed to two languages is able to productively differentiate one language from the other without much so-called interference or overgeneralization of rules. If after this stage in his bilingual acquisition the child switches and mixes codes then the question posed by such variation is whether it is random and thus meaningless or whether it is non-random and so carries social significance in addition to the referential meaning of the utterance. The literature relating to early bilingual acquisition is reviewed in Chapter three, Part one.

2.4 CODE-SWITCHING IN ADULTS AND CHILDREN COMPARED

We cannot assume that the code switching/mixing of young children, when it is not a feature of lack of differentiation of the two codes, will have the same social significance as that of adults. Even if children conversationally code-switch in a pattern similar to the adult one, they will not easily be able to tell us their interpretation of code-switching as adults can, so the type of qualitative analysis used by Gumperz is not appropriate here. In any case, four year olds are unlikely to have the cognitive capacity for abstraction which would underlie the kind of explanations which Gumperz offers.

The research on child switching/mixing is reviewed in Chapter 3, Part 2. There are reports of differences and similarities between adult and child switching. García (1980) suggests that code-switching in children differs quantitatively and qualitatively from adult patterns. So we may expect to observe a different kind of switching amongst children, which has hitherto received little attention. On the other hand a report by Oksaar (1975) claims that switching in children has a similar basis to that in adults. If this is the case, observations may reveal the first stages of a communicative resource which will later become elaborated in line with the adult pattern. The social meaning of child switching/mixing certainly seems to be open to question and experimentation.
Ervin-Tripp (1964) has identified three major features of the speech situation aside from linguistic and stylistic rules which govern code-switching: a. the participants, b. the setting, c. the topic or range.

It is the first factor, the participants, which I would like to focus on, because it seems likely that most variability arises as a bilingual interacts with different people, all other factors being equal. Speaking as a bilingual, Grosjean (1982 p.136) says that it is rare to find bilingual friends or relatives who do not have an 'agreed-upon' language of interaction. On the other hand, examples of who switches with whom (p.149) indicate that intimacy can favour switching. A bilingual interacting with another bilingual is, in general terms, seen as selecting a base language and then deciding whether or not to code-switch (p.129).

An aim of this study is to show that switching/mixing which is not attributable to lack of differentiation of the two developing linguistic systems of the young child occurs and carries social significance which contributes to the meaning of the message. This switching/mixing would be expected to vary depending on whom the bilingual is talking to (interlocutor), where he is (setting), and what he is talking about (topic). The first factor, that of different interlocutors, is the one which promises to show most variability. Grosjean (1982 p.202) confirms this:

As might be expected from our discussion of the person-language bond, most studies state that the participant is the most important factor in language choice.

A number of definitions of speech community are reviewed in Hudson (1980 pp.25-30). He reaches the conclusion that the notion of speech community may be misleading as it implies the existence of discrete groups of people in society which sociolinguists should be able to recognize. An alternative concept, suggests Romaine (1980)
the *social network*, as used by Milroy (1980). The social network represents a level of abstraction below the level of speech community and is a useful area in which to examine the relation between kinds of language and uses of language.

Taking this idea to an even lower level of abstraction, a community could be said to start with two individuals who choose to interact. In a nursery school class where activities are fairly unstructured and children are allowed to wander from one activity to another, they are free to associate with whom they choose. A child's *degree of familiarity* or *contact* with others could provide a social dimension along which speech samples could be collected and compared.

Sociometric techniques have been used in the school classroom to establish friendship networks (Jennings 1959). Each child is asked to name his/her three best friends in order of preference. The results are then graphed in the form of a sociogram. This is similar to a network where the most popular members of the class have most lines leading to their names. I have adapted this idea so that the first stage is observation by the experimenter of a child's encounters, over a fixed period during a free activity session in the nursery class, rather than asking the child who his/her friends are. If X interacts with Y several times in a fixed period then it can be assumed that X and Y actively seek each other's company, are friends, and have a record of having conversed with each other. A notion of community then begins to emerge from the number of encounters or the degree of familiarity which children have with each other. A social dimension, degree of familiarity of participants, can be extracted, along which variation in code-switching can be examined.

The community will not be completely charted nor will open or closed networks (Milroy 1980) be relevant since young children would not be expected to have much freedom to enter open networks. Two children meeting and conversing will be regarded as a *community*. It will be possible to place emphasis on an individual's language use in relation to that of his interlocutor rather than making comparisons between an individual's language and a normative standard. However, it is necessary to assume the existence of external languages otherwise the notion of code-switching makes no sense.
2.7 EXPERIMENTAL SOCIOLINGUISTICS IN A NATURAL SETTING

2.7.1 Bilingual speech in dyads

Experiments set up artificial situations says Ervin-Tripp (1964 p. 257). This is inevitable because they allow artificial constraints on normal co-variance. I believe, however, that observations of social interaction are possible in contrived conditions which seem natural, particularly if the subjects are young children. The observer's paradox (Labov 1972a p.113) whereby the observer influences the events he is observing, can be minimised if the children are sufficiently attracted by their conversational stimulus, if the experimenter leaves the room and if the conversation is recorded or videoed inconspicuously.

This study aims to explore the variation in code-switching/mixing of young children depending on the degree of familiarity of the subjects with their interlocutors who are selected on the basis of their relative frequency of interaction with the subjects during a period of observation.

The speech data are recorded in a controlled experimental setting where all variables except one are kept constant. Degree of familiarity of participants is taken as the controlled variable. Each subject's speech is sampled in three conditions along this dimension of familiarity: in conversation with a Major contact, with a minor contact and with a null contact (in randomized order). The other two factors claimed to affect switching (section 2.5), the setting and the topic, are kept constant. To achieve constancy of topic a number of different pets are used as a stimulus to conversation (in theory three animals are needed so that novelty value is preserved together with constancy of topic, but in practice, more than three were used). Given a subject sample large enough to apply statistical significance tests, any significant variation found in the speech data can be argued to be causally related to the systematically varied degree of familiarity.

Much sociolinguistic research has typically used correlational techniques where variants of a variable are shown to co-occur with
social parameters such as age or social class/status. Co-occurrence is not necessarily evidence of causality so an experimental situation with controls is a more powerful tool.

In the ethnographic tradition, the experimenter spent some time in each nursery classroom in order to be accepted by the children as someone who might legitimately take them into a room and leave them for ten minutes with a caged animal.

2;7;2 **Bilingual speech in groups-of-four**

The results of the first part of the study, bilingual speech in dyads, indicated that most of the code switching/mixing seemed to take place between minor contacts, when children were getting to know each other. Results also showed that, in spite of extensive switching and mixing in a dyad, there was a tendency for the conversation, as it progressed, to resolve itself in increasingly higher proportions of one language or the other. The second part of the study was designed to maximise the possibility of switching and to find how a larger group, of four children, would resolve the problem of having two languages available to them in addition to having loosely established friendships with other members of the group. As far as code choice was concerned, participants would be in the most difficult contrived situation. At the same time, a sufficient degree of affiliation was maintained in a group-of-four so that it would resemble a group which had been 'naturally formed'.
CHAPTER 3
CHILD LANGUAGE
PART 1: EARLY CHILD BILINGUALISM

3; 1 DEFINITIONS

A child can acquire two languages in infancy either simultaneously or successively. MacLaughlin (1978) uses an age criterion of three years to distinguish the two modes of bilingual acquisition, where a second language introduced after the age of three years is termed successive acquisition. Bilingualism is a complex notion related to linguistic, psychological, and social variables, some of which will be focussed on in this study.

Weinreich (1953) first commented on the artificiality of the distinction between bilingualism and monolingualism in his study of the interference effects resulting from language contact within a single individual. The two systems involved, he said, could be languages, dialects of the same language, or varieties of the same dialect. Swain (1977) has more recently restated that learning two or more languages does not differ in a significant way from learning one language since even monolingualism almost invariably involves the acquisition of two or more codes. A speaker's substitution of one language for another or one dialect for another or one variety of dialect for another are all examples of code-switching. However, language switching in young children is more obvious than use of different registers. So examination of switching between languages allows us to make statements with greater confidence.

3; 2 METHODOLOGY

Many of the studies on early bilingualism, e.g. Leopold (1939-1949), Imedadze (1967) collected material by the 'diary method'. Whilst such studies often present large quantities of
data, especially in Leopold's case, they are often methodologically questionable as there are no controls over elicitation situations.

It is difficult to strike a balance between observing individual children in considerable detail and extracting generalizations from many cases. On the one hand, it is only by focussing on single cases that the systematic nature of the process of acquisition can be observed with its features particular to the individual and, on the other hand, data collected from a number of children is essential to the formation of statistically significant generalizations. And both of these are a necessary foundation for a theory of acquisition.

3.3 MIXED OR INDEPENDENT DEVELOPMENT OF THE TWO LANGUAGES OF THE BILINGUAL CHILD

Most of the literature on infant bilingualism falls into two main categories; those writers who consider that the child has one linguistic system at the beginning which slowly differentiates into two and those who see the child as having two systems from the outset. The literature relating to these two different interpretations will be introduced in this section with reassessment in a framework which attempts to account for the discrepancies. First, lexical mixing at the earliest stage of bilingual language development will be considered. It is from this earliest stage that much of the disagreement on underlying process seems to stem. Following this, the two different perspectives on syntactic development will be examined: whether the bilingual's two languages develop independently, or whether there is one system which differentiates into two. In the course of attempting to find an explanation for the discrepant findings, a sociolinguistic perspective will be proposed to account for most of the mixing.
3;3;1 Early mixing of lexical items

All the studies reported deal with spontaneous child speech which was elicited in a naturalistic situation or recorded by the child's caretakers during the course of the day.

Amongst the earlier studies Leopold (1939-1949) reports that his daughter Hildegard used one language system, a blend of English and German, in the first stage. At age 1;6 her vocabulary consisted of 36 English items, 24 German, and 29 English/German ones. Some of her two- and three-word utterances were mixed constructions. A code-mix of similar proportions was found by Volterra and Taeschner (1978) who studied the language of two children brought up in an Italian/German bilingual environment, Lisa at age 1;11 and Giulia at age 1;6. A vocabulary count which compares the results from both studies is shown in Table 3;1. Items coded as Italian/German or English/German are defined as 'words which are closely akin in form and meaning in both languages.' Equivalents are those words which can be considered to correspond in the two languages.

TABLE 3;1
Composition of three bilingual children's vocabularies in the second year (adapted from Volterra & Taeschner (1978)

<table>
<thead>
<tr>
<th></th>
<th>LISA 1;11 (Volterra &amp; Taeschner)</th>
<th>GIULIA 1;6</th>
<th>HILDEGARD 1;6 (Leopold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italian</td>
<td>38</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>German</td>
<td>25</td>
<td>33</td>
<td>24</td>
</tr>
<tr>
<td>Italian/German</td>
<td>24</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Equivalents</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Only a few of the items in the bilingual's two languages correspond at this stage e.g. Lisa's vocabulary includes *chechea* which is a variant of *acqua* (Italian-'water') and *Wasser*
There is some evidence that these instances are not considered by the child to exactly correspond. For example, Lisa uses *da* (German) for objects present and visible but *là* (Italian) for objects not visible. An instance of this kind of differentiation was shown by a child I met in Spain. He spoke English at home but at age 2 went to Spanish nursery school, where he would have been given tap water *agua* to drink. He consistently referred to water in a glass as *agua* but water to wash as *water*. His English speaking mother bathed him but never gave him tap water to drink. So although the child was using two externally different linguistic codes; Spanish and English, he was incorporating them into his personal system in a contextually rule-governed manner.

Imedadze (1967) reports a similar linguistic development in her child who was brought up in a Russian/Georgian bilingual setting, according to the one-language-one-person principle, where the mother and father spoke Georgian and the grandmother and nurse spoke Russian. The child's first words were *tsiti* (flowers - Russian) and *buti* (ball - Georgian). At age 1;2 he used his first translational equivalents without one inhibiting the other. At 1;3 he was heard to say *modi ak* (come here - Georgian) then *idi idi* (come here - Russian). An example of his mixed speech about this time was the utterance:

```
puri khochish chama
(bread want eat)
```

Georgian Russian Georgian

At this stage his speech was said to have no grammatical structure.

Burling (1959 p.67) reports that his child, acquiring both English and Garo (Assam region, India) spoke initially 'with a single linguistic instrument, forged largely from Garo, but with the addition of English vocabulary and a few extra English phones'.

The above studies have all supported the idea of the bilingual child's first language being a mix of the two languages to which he is exposed. Comparing the children's ages and stages
of development in these studies, mixing is reported by Volterra & Taeschner, Leopold, Imedadze and Burling at a time when the child is typically speaking with one-word utterances, perhaps with sequentially related holophrases (Bloom 1973) or is at the beginning of the two-word phase.

So, the stage of bilingual acquisition in which the child has a mixed lexicon tends to coincide with the period when he has his own idiosyncratic language system, which is on the whole presyntactic. Dore et al (1976 p.13) describe this first stage as follows:

.. the earliest patterned speech is not organized in terms of grammatical categories but in terms of more fundamental co-ordinations of conceptual meaning with phonetic outputs.

For the child developing bilingually we might expect a mixed lexicon initially since the child's caretakers probably each refer to different objects and activities and the child hears too few equivalents to realize that two systems are operating. The data from Table 3;1 shows the small number of equivalents in the bilingual's two languages. A report by Oksaar (1975), of a Swedish/Estonian bilingual child, bears out this interpretation. She says that the first mixed stretches of speech were due to intralinguistic factors, since the child had heard the words in only one language. So household activities such as moppa (to mop), damma (to dust), and städa (to tidy up) were all in Swedish because the activities were performed by the Swedish household help.

3;3;2 Independent development of the two languages

Reporting on her daughter's acquisition of Spanish and English, Bergman (1976) supports the notion of independent development of the two languages from the beginning. The author is especially concerned with the possessive which is differently realized in Spanish and English and so unfortunately no details
are given of the earliest language where a language mix may have been used. She says of this 'first' stage (p.86):

It was my belief.... that each language would develop independently of the other with a minimum of mixing between the two. In her early development this seemed to be the case.

The first utterances reported are at about 1;2 when the child said:

mine, that's mine.
mío, Es mío.

This example, however, is more typical of language produced later than the one-word stage. One definition of a syntactic utterance, given by Dore et al (1976 p.21) is as follows:

Syntactic utterances are considered to be those in which two or more words are produced forming one intonational pattern and in which the relation among the words is one of the factors determining the meaning of the utterance.

Bergman's example, rather than a first stage speech sample, is better described as from a stage of language acquisition when the operation of syntactic rules is apparent.

Other studies, Padilla & Liebman (1975), Lindholm & Padilla (1978) and Garcia (1980), which have considered that the bilingual child has two differentiated systems from the start have typically looked at slightly older children who could probably already be considered to manifest syntactic relations in their speech.

Padilla & Liebman (1975) report on three English/Spanish bilingual subjects of ages 2;2, 2;1 & 1;5. They conclude that the subjects demonstrated the use of one set of rules per language which was particularly evident at the phonological level. If there is a stage when the children cannot differentiate, the authors claim, then this is quite early.

A small proportion of mixed utterances, 2% of the total utterances (110/5177), was found in the bilingual speech of 5 Spanish/English children between 2;10 and 6;2 (Lindholm & Padilla
1978). The differentiation of two linguistic systems clearly occurs quite early and this finding is predicted from the previous one where Padilla & Liebman (1975) could have missed the earlier mixing since their youngest child was 1;5 and the data was weighted towards older children. Since it was admitted then that the mixed system occurs early if at all, then it would certainly have been missed by Lindholm & Padilla (1978) starting with children aged 2;10.

Another study with 12 Spanish/English children aged 2;5 to 3;5 by García (1980) showed a minimal amount of switching/mixing in the children of less than 1%.

3;3;3 Mixed or independent development

Individual differences may account for the apparently conflicting reports as to whether the bilingual child starts with a mixed system. Grosjean (1982 pp.173-175) describes different strategies for bringing up a child bilingually, such as 'one-person-one-language' where each of the child's caretakers speaks only one language, or there may be a separation of languages by place, for instance the minority language in the home and the majority language outside. Alternatively, a more 'natural' state is the free alternation of languages in the child's environment.

The explanation for Bergman's child's ability to keep her languages separate from the beginning could lie in the distinct identities of her linguistic models. The impression given is that Bergman's daughter did not live in a bilingual community (she was taken twice a week to play with Spanish children) so the English and Spanish in her linguistic milieu would be clearly defined. The mother's expectations may also have been important (see Bergman's quote in section 3;3;2).

The child reported by Imedadze (1967), an early mixer who had clearly defined linguistic models in terms of one-person-one-language, was able to address one person in one language with infrequent mixing very early.
At 1;8;25 he said:

In Georgian to his mother:
  Patala bichi chamovalda, satskali bichi.
  (The little boy fell down, poor boy.)

In Russian to his grandmother:
  Adin mal'chik upal, ba-dina
  (A boy fell down, Granny.)

Another explanation for the discrepancies between reports of independent development or early mixing of the bilinguals two languages could stem from methodological differences. Firstly, the diarist has little opportunity to hear a repetition of the child's utterance as is possible in the case of the tape-recorded speech produced in experimental situations. Secondly, the diarist usually knows the child well (as a caretaker) and has established ways of interacting with the child, particularly in respect of code-choice. On the other hand, the experimenter attempts to make selective observations by arranging for the child's interlocutor to fulfil certain conditions (e.g. monolingual, potential code-switcher).

A further explanation for the discrepant findings could be found in the different age-ranges studied. It seems that researchers supporting the notion of one linguistic system which becomes differentiated have looked at children from the time they made their first interpretable utterances, whereas those committed to independent development have not examined the earliest speech of the child and so missed the one-word mixed-lexicon stage.

3;4 TRANSLATION ABILITY

At some stage bilingual children are reported to realize that equivalents exist and begin to be able to translate i.e. produce paraphrasing utterances consecutively in either language. This ability accompanies the transition from one mixed vocabulary to two vocabularies and can occur at various ages. Table 3;2 gives examples of early incidences of this translation ability from the Imedadze, Volterra & Taeschner and Leopold data. The ability to
translate is still accompanied by mixing although percentages are not available for the children mentioned in the studies above. Productive translation seems to be evidence that the two language systems are differentiated or in the process of differentiating.

**TABLE 3:2**

*Early instances of translation reported in two studies of bilingual children (Volterra & Taeschner, 1978; Leopold, 1939-49)*

<table>
<thead>
<tr>
<th>Volterra &amp; Taeschner</th>
<th>Leopold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2;5 Lisa</strong> Occhiali, Brillen</td>
<td><strong>1;6 Mother</strong> Don't you know what 'no, no' means?</td>
</tr>
<tr>
<td>(glasses glasses) while showing a picture</td>
<td>Hildegard nein, nein</td>
</tr>
<tr>
<td><strong>2;2 Giulia</strong> Metti tavolo di Giulia</td>
<td><strong>3;0 Hildegard</strong> Nose</td>
</tr>
<tr>
<td>She wants her mother to put (put table of Giulia) some cups on the table.</td>
<td>Father Wie hiesst das auf Deutsch? (What's the name in German?)</td>
</tr>
<tr>
<td>Das da, das da auf Tisch von Giulia</td>
<td>Hildegard Nase</td>
</tr>
<tr>
<td>(that there, that there on table of Giulia)</td>
<td></td>
</tr>
</tbody>
</table>

**Imedadze**

| 1;2 modi ak (come here) Georgian |  |
| idi, idi (come here) Russian   |  |
| sakhli (house) Georgian        |  |
| domik (house) Russian          |  |

A case study by Levy (1985) of a Hebrew/English bilingual child focuses on the significance of the translation ability and its relation to mixing. Yair at age 18 months with a vocabulary of 30 single Hebrew words was introduced to an English-speaking day nursery. Conditions were optimal for bilingual acquisition as Hebrew was generally spoken at home so the two languages were externally differentiated according to person and place. Three
language samples were taken at ages; 2;1, 2;3 & 2;5 (roughly corresponding to Brown's stages 1 to 3 ). Mixing of Hebrew words into English in the day nursery setting was negligible. Table 3;3 shows the mixing of English into Hebrew at home during the same periods.

The smaller number of mixed utterances at age 2;1 can be easily accounted for as the child had only a weak command of English at that age. Even later, samples showed minimal mixing, less than 15% in each case. Levy considers in some detail the phenomenon of interlanguage repetition included in the mixed utterances. Swain (1972) has also reported a period of cross-language repetition or 'spontaneous translation' by a French/English bilingual child, which she interpreted as an indication of the child's belief that the interlocutor required an additional cue in order to understand. Levy, however, considers that cross-language repetition represents hypothesis-testing by the child. Since English is sometimes used in the home to visitors, or is heard on T.V. the child hypothesises that here is an environment where both words are required, but he soon realizes that this is incorrect and discards the notion.

TABLE 3;3
Percentages of English, Hebrew and mixed utterances used in the home environment by one child (Levy 1985)

<table>
<thead>
<tr>
<th>Age</th>
<th>English %</th>
<th>Hebrew %</th>
<th>Mixed %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2;1</td>
<td>22</td>
<td>71</td>
<td>7</td>
</tr>
<tr>
<td>2;3</td>
<td>33.8</td>
<td>51.6</td>
<td>14.6</td>
</tr>
<tr>
<td>2;5</td>
<td>46</td>
<td>42</td>
<td>12</td>
</tr>
</tbody>
</table>

By the age of two, Yair was said to have linguistic awareness. He could translate on request although sometimes with difficulty; either after a pause, apparently for thought, or sometimes giving a related word rather than the exact translation e.g. Mother: How does Pat say lion? Yair: namér (tiger)
3;5 SYNTACTIC DEVELOPMENT

There have been a number of different perspectives on the development of syntax in the bilingual infant. It has been proposed that one syntactic system differentiates into two (Volterra & Taeschner 1978). Mixed input may be responsible for mixed-language use (Bergman 1976). There have been, on one hand, reports of overgeneralizations from the syntactic system of one language to that of the other (Imedadze 1967; Volterra & Taeschner 1978) and, on the other, suggestions that interlanguage interference is minimal when the two languages are dissimilar (Burling 1959) and also when the languages are more closely related (Padilla & Lindholm 1976; Lindholm & Padilla 1978).

3;5;1 One differentiating syntactic system

The process of bilingual acquisition is viewed by Volterra & Taeschner (1978 p.312) as consisting of three stages. At first there is early mixing of lexical items, then this is followed at a second stage by a differentiation of two lexicons but the application of one syntactic system, finally two syntactic systems are distinguished. The mixed and differentiated lexicons have been discussed in the previous sections (3;3;1, 3;3;2 and 3;3;3). Early solutions to the infant bilingual's syntactic problem may be in the form of a single system, which is identical with neither of the target languages, say Volterra & Taeschner (1978 p.324). Mismatches with the adult model should not then be considered as instances of overgeneralization from one language to the other. In the case of Lisa's first rules for negation her pattern is neither the German one, where negation follows the verb, nor the adult Italian pattern, where negation precedes the verb. She put the negative marker at the end of the sentence, as monolingual Italian children sometimes do.

e.g. a sentence heard in Italian was:
Lisa cade no  
(Lisa falls no)

and at 2;7 a sentence in German:

Lisa haia haia machen no  
(Lisa sleep does no)

Possession was also marked in a syntactically consistent form in both of Lisa's languages, neither with the German adult form of the possessive 's, nor with the Italian adult pattern using the preposition di.

E.g. Lisa Hose  
German  
(Lisa pants)

and Lisa bicicletta  
Italian  
(Lisa bicycle)

3;5;2 Mixed input

Bergman (1976) reports incidents of apparent overgeneralization of rules in her daughter, Mary, who uses the English 's possessive in Spanish after a period of using the English and Spanish possessives correctly.

At about 1;6: That's coffee. That's Mommy's. That's Mommy's coffee.

At about the same time:
Son las botas de papá. (They-are the boots of papa)
In both cases, the English and Spanish constructions are correct. But about 2;3:
Es de papá's. Es de Ani's. Es de Mamá's. Es de María's.
(It-is of papa's. It-is of Ani's. It-is of Mama's, It-is of Maria's)

Here she is using a combination of Spanish and English possessive marking.

Bergman was puzzled by this development until she noticed that one of the child's caretakers used non-Spanish constructions such as:

¿Es Jennifer's? (Is-it Jennifer's)

presumably because 'Jennifer' did not lend itself to adaptation to the Spanish phonological system. Bergman's explanation for this apparent overgeneralization of rules is that it is not so much linguistic incompetence but rather a consequence of mixed-language input.
3;5;3 Overgeneralizations or interference at the syntactic level

At a stage when the process of differentiating the two syntactic systems was well under way, Volterra & Taeschner (1978 p.325) report cases of interference at the syntactic level. This is more obvious in situations of conflict such as telling a story in Italian from a German book. Lisa at 3;6 was reported to use German utterances based on Italian word order and vice versa.

German Ich nicht bin müde.
(I'm not tired. Adult form: ... bin nicht.....)

which is modelled on the Italian:
Io non sono stanca.

Italian Quel bianco pecora
(The white lamb. Adult form: pecora bianco.)

which is modelled on the German:
Das weisses Lamm

Imedadze (1967) also noted difficulty with grammatical forms differently realized in Georgian and Russian. From the age of about 1;8 the child was correctly using the Russian pattern for object inflection but generalizing this to Georgian which requires subject inflection.

He said:
Dali undo tsignis Georgian

Correct form: Dalis unda tsigni
(Dali wants the book)

Forms which were analogously constructed in both languages were, however, mastered simultaneously and without difficulty.

3;5;4 Minimal interference for dissimilar languages

Evidence for minimal structural interference comes from studies where the two languages were grammatically dissimilar. Burling's son who was acquiring English and Garo (Burling 1959) is described as being flexible in his use of lexical items but he did not generalize morphology and syntax from one language to another. Mixing of English items into Garo was common in the speech of adults in the community so the child's language presumably reflects this. The morphology of Garo is not a
'luxury' of the fully developed language according to the author and Stephen was very consistent in using the strict ordering of morphemes in Garo words. Burling says (p.66):

He would first learn a number of examples of the construction by rote and at this stage it was generally difficult to tell whether he understood the meaning of the construction or not, though for the most part this seemed unlikely. He would then generalize the construction and learn to substitute other appropriate forms in the same construction... these constructions were rarely grammatically incorrect.

The child's morphology and syntax were Garo even if the lexical items might be English and however many morphemes might be borrowed there was seldom any question as to which language he was using since affix morphology and syntax were either all Garo or all English. After 2;8 when the vowel system differentiated, the phonology was also appropriate to the choice of grammatical system.

It has been suggested (Lipski 1978) that the closeness of fit between the surface syntactic structure of the two languages and the general configuration of grammatical elements places constraints on code-switching. So, in a case where the superficial syntactic forms of utterances expressed in the two languages are discrepant such as in Garo and English, lexical borrowing would predictably be the commonest type of code-switching.

Holm et al (1973) looking at English loan words in the speech of Navajo children have found that compared with thirty years ago (Sapir's work) there has been a major change from the absence of loan words to the situation today. It was earlier felt that structural considerations between these two very different languages prevented linguistic borrowing but now socio-cultural factors are seen to be more important; the Navajos being more assimilated than 30 years ago. However as with Burling's data there seems to be lexical borrowing from English with suffixes provided by the base language, in this case Navajo.
Syntactic interference may be less likely when the bilingual's two languages have very different syntactic rules.

3;5;5 Minimal interference for closely related languages

Lindholm & Padilla (1978) report little mixing in English/Spanish bilingual infants. Mixed utterances were only 2% of the total number. Table 3;4 shows the types of mixing exhibited by 5 children aged 2;10 to 6;2.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>SPANISH WITH ENGLISH INSERT</th>
<th>ENGLISH WITH SPANISH INSERT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noun</td>
<td>71</td>
<td>12</td>
</tr>
<tr>
<td>Verb</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Conjunction</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Adjective</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Phrasal</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>25</td>
</tr>
</tbody>
</table>

The most common mix involves insertion of single lexical items, generally English nouns into Spanish utterances. Where English nouns followed a Spanish article or demonstrative, the number of the functor was always in agreement with the number of the noun, this was not always the case for gender. Very few phrasal mixes were observed but when these occurred structural consistency of the utterances was maintained. There was no repetition of articles or other sentential information. This point, of the structural consistency of mixed utterances, is also made by Padilla & Liebman (1975). Their examples are given in Table 3;5.

In another study, Padilla & Lindholm (1976) examined the acquisition of various grammatical structures in English/Spanish.
of 19 bilingual children aged 2 to 6; 4. Comparison of acquisition of the interrogative (wh/k-d) structures revealed that the rule for preposing the interrogative word was followed in both languages by even the youngest child. The inversion rule was employed about 1 to 1½ years sooner in Spanish than in English, and in English the inversion rule seemed to be learned simultaneously with auxiliary verb insertion. The authors suggested that the explanation for the age difference in using the inversion rule in the two languages was that in English the children were concentrating on auxiliary verb insertion (e.g. inclusion of 'do', 'does' in the English question form) and expanding superficial structures before beginning to invert the subject noun phrase with the verb.

**TABLE 3:5**

Examples illustrating the structural consistency of mixed utterances

<table>
<thead>
<tr>
<th>Joaquin ≈ 2;2</th>
<th>Bobby ≈ 2;1</th>
<th>Michelle ≈ 1;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>es a baby horsie</td>
<td>una baby</td>
<td>¿Qué that?</td>
</tr>
<tr>
<td>es un baby pony</td>
<td>es a baby</td>
<td>dame that</td>
</tr>
</tbody>
</table>

Having compared the relative developments of the interrogative and other structures in the two languages, it is concluded that children learn the structures of each language separately. The only case of structural interference reported is that of double negatives in English.

* e.g. But I’m not gonna make nothing.

In Spanish there would be two negatives;

* No voy a hacer nada.

Citing evidence from McNeill (1970) that this kind of structure occurs in the speech of monolingual English children they feel that even these instances may not be real examples of syntactic interference from one language to another.
Such a large scale survey as this, where 19 subjects were studied, is concerned with making generalizations about the process of acquiring two languages simultaneously, so it is perhaps not so sensitive to the incidence of syntactic interference as the longitudinal studies of individual children speaking under 'natural' conditions, which presumably include conditions of stress and conflict as far as language is concerned. The conditions under which data was collected favoured differentiation of the two language systems since child speech was taped in clear-cut Spanish-speaking or English-speaking conditions, i.e. in conversation with an experimenter who spoke only English or only Spanish. It appears that the researchers expected that the two language systems would be differentiated and the experimental design encouraged such a finding. However, the results illustrate that syntactic interference need not (possibly, even cannot) be an extensive phenomenon in young bilinguals.

One study gives an idea of levels of mixing varying with developmental stages of language acquisition. Redlinger & Park (1980), in a study of 4 bilingual children growing up in a German-speaking community, analyse mixing in relation to linguistic development as measured by M.L.U. (Mean Length of Utterance). They relate this to Brown's (1973) five stages. The results of mixing levels found are shown in Table 3;6.

<table>
<thead>
<tr>
<th>STAGES</th>
<th>Percentage of mixing at different stages of language development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20%-30%</td>
</tr>
<tr>
<td>2</td>
<td>12%-20%</td>
</tr>
<tr>
<td>3</td>
<td>6%-12%</td>
</tr>
<tr>
<td>4&amp;5</td>
<td>2%-6%</td>
</tr>
</tbody>
</table>

In order of frequency, substitutions occurred for: noun, adverb, article, pronoun, verb, adjective, preposition and conjunction.
The figures show mixing to be inversely associated to language development. This study is, however, mostly concerned with lexical intrusions from one language into the other and confirms the conclusion reached in a previous section that the bilingual child's earliest language is a mix of lexical items from the two external sources. There is a suggestion that the speed of differentiation of the two languages could vary depending on the separation of the child's linguistic models in terms of the one-person-one-language principle. The emphasis of the study is not on syntactic interference, so little more can be added about the stage under consideration where the possibility of translation and two sets of syntactic rules seem to be emerging.

In summary, from an age when it is sensible to talk of syntax in child speech, syntactic interference or overgeneralization of rules from one language to the other obviously takes place as the concrete examples given by various authors show. But large scale studies suggest that the interlinguistic syntactic influence can be minimal if conditions favour separation of codes. The process of keeping the two sets of syntactic rules separate is not an easy process say Volterra & Taeschner (1978) and interference is more likely to occur in conditions of conflict for instance where simultaneous interaction with different language speakers is necessary. It appears that bilingual children of about nursery school age (four years) should be able to keep their languages separate.

PART 2: SOCIOLINGUISTIC SWITCHING

So far I have used linguistic terminology such as systems, syntax, lexicon and interference which imply the existence of an external 'normative' language. Language on the whole has been referred to outside a social context in an attempt to discover the extent to which children are able to discriminate different language systems. It seems that bilinguals use a mixed lexicon at
the beginning, although there may be individual differences in this respect. There are varying reports as to how separate the children are able to keep the syntactic rules for the two languages. But if these rules are not learnt separately then they soon differentiate. A sociolinguistic interpretation which includes the influence of extralinguistic situational factors may be able to contribute to an understanding of the sometimes contradictory findings. It could enlarge our perspective on the conditions under which a child achieves his communicative competence in two languages.

3;6 LINGUISTIC MODELS

The acquisition of first words is usually in the context of visual-motor activity, rather than in a verbal context as for adults. The words are then tied to person or place. When the child produces what, on the face of it, seems to be a mixed utterance it is only mixed from the point of view of the listener since the child has no alternatives. At this earliest stage the child has built up an idiosyncratic system from the models available and it may be the case that the earliest mixed lexicon triggers later use of the first-learned forms even when the child's language has developed to the extent that the alternatives in both codes are known. Ervin-Tripp says that lexical items acquired in childhood may retain connotations from that time so presumably the language of first learning has affective attributes regulating its selection later on.

In one nursery school I visited, two children who were making model cameras from bricks for me returned to exactly the same activity when they saw me two weeks later, presumably guided by the association of person, place and activity. The same seems to be true of bilingual children's linguistic behaviour. Several writers have commented that the child uses the language with which he first communicated with someone on a later occasion and is upset if that person tries to speak the child's other language (e.g. Volterra & Taeschner 1978; Grosjean 1982 pp.198-199).
In situations where code-mixing and switching is prevalent such as in a community where two or more languages are in contact, it is said to be the norms of the face-to-face community which influence bilingual speech (Blom & Gumperz 1972). Trudgill (1982) also stressed that face-to-face interaction is more important than the influence of the media on speech. So we might expect that children learning language in a community where code-switching is prevalent amongst adults will reflect the norms of the community in their linguistic acquisition in addition to exhibiting the switching/mixing which may stem from learning lexical items in a certain context.

3.7 FEATURES OF CHILD CODE-SWITCHING

The developmental character of children's code-switching has been little researched but studies indicate that there is a difference in quantity and quality between child and adult code-switching says García (1980 p.245). Different kinds of code-switches are reported to be more frequent at different ages. McClure (1981) examining Spanish/English bilinguals found mixing of individual lexical items from one language into the other was more common for younger children, whereas older children, over nine years, more frequently code-changed, i.e. they switched languages for a phrase or sentence.

In a study of first and second grade Spanish/English bilinguals during classroom activities the general rule seemed to be 'use English whenever possible' (Shultz 1975). When they did code-switch, the children appeared to be using Spanish or English as a function of their perception of the listeners' competency in either language. Another study of code-switching, amongst six-year olds (Genishi 1981 p.150), suggested that the main rule governing code-switching, which adults would take for granted, was 'speak the language the listener knows best'. Other social meanings of code-switching, hypothesised by Gumperz (1976), such as sophisticated judgements relating to speaker intentions and the conventions for signalling social/ethnic background are
developmentally outside the scope of these young children, Genishi claims.

García (1980) looked at the role of language switching during Spanish/English bilingual mother-child interactions and attempted to add a qualitative interpretation of switched language use to the quantitative analyses usually reported. Adult characteristics of code-switching, it is claimed, may manifest themselves at later periods of bilingual acquisition. The children aged 2;5 to 3;5 were observed over a nine-month period in a natural setting with their mothers. The mothers' code-switching was of three types:

1. Instruction. Information about the second language was given in the first. e.g. *Se dice apple in inglés*.
2. Translation. The same information was given in both languages. e.g. *This is a boy. Este es muchacho*.
3. Code-switching. Switched language use was any instance of use of both languages other than the above two categories.

Instruction and translation accounted for 60% of the mothers' switched utterances. The children switched rarely, less than 1% of the time. Within the mother-child interaction switching had the function of conversational clarification and possibly language learning or teaching. Code-switching in the literature has generally been taken as type three where a choice is possible.

3;8 SWITCH POINTS

There seems to be a general consensus that it is difficult to predict when a switch will take place unless the personal history of the child is known and even then explanations are post hoc.

Oksaar (1975) says that code-switching and interference on the sentence and discourse level cannot be explained satisfactorily if isolated from the situation. She considered the following as causes of switching in her infant son:

1. Person and place most obviously caused a code-switch, e.g. leave-taking from his father in Estonian at the door of a
friend's house he switches to Swedish as his Swedish playmate opens the door and says:

_kofferten inte mee; bilen inte mee._
(the bag is not with me, the car is not with me.)

2. Topic sometimes influenced the choice of code, so if the child talked about cars he used Swedish since he only knew the names in Swedish.

3. Estonian words hardly ever appeared in Swedish sentences but when they did they followed the rules of place and person, i.e. when and from whom learnt.

4. Items in the other language could be used as quotations from an earlier utterance.

5. Code-switching also arose in an appellative function. To strengthen the argument in Estonian he might repeat a request in Swedish.

Piette (1982) gives an example of a Welsh/English bilingual child aged about six who in telling a story uses Welsh for the narrative and English for direct-speech role playing, rather like putting on an accent for a character.

_Rhodri: Edrychodd e lan a welodd e. (he looked up and saw)_

: Ioics.
: I'm not going back in there without my tiger.
: Teigr gyda fe ti'n gweld. (he had a tiger with him you see)

The child appears not only to have learnt rules for alternation between the two languages but is able to use them for dramatic effect. McClure (1981) confirms that switches related to mood shift appear at about the age of six years. Then slightly later, at about 8/9 years, switches for emphasis occur.

3.9 WHY CODE-SWITCH?

Oksaar (1975) sees code-switching as a strategy for attaining communicative competence in two languages. In her conclusion she says (p. 385):

_Code-switching reveals that language contact operates on at least two levels. Thus it develops an awareness of two languages, which makes it possible to use the 'right'
sequences in the 'right' situations. However it also seems to develop awareness for rationality in performance; interference may occur on one occasion and not on another even if it is equally possible in either case.

So it would be surprising if code-switching did not take place. In the same way that the infant does not use the 'right' grammar on the adult model when he is acquiring language neither does he consistently use the appropriate code for the context. He gradually learns to separate the codes concurrently with acquiring the syntactic rules. This separation of codes seems to be analogous to the monolingual's use of different registers to different interlocutors. At about four years old monolinguals '...may whine at their mothers, engage in intricate verbal play with their peers and reserve their narrative, discursive tales for grown-up friends', (Gleason 1973 p.167). At about this age then, we might expect that bilinguals will have developed some sophistication in their selection of the appropriate code for the context.

Ervin-Tripp (1967 p.82) suggests that perhaps the bilingual child's selection of linguistic variety is more dependent on the social milieu and less dependent on private motives than that of the adult whose language is under more conscious control. If the community has a long history of bilingualism code-switching/mixing may be the norm and code-separation may be reserved for formal registers and written language. In such a case we would expect that children, not having had much exposure to situations where the languages are differentiated, would have more difficulty in separating the codes. This point is reiterated by Swain (1977) who believes that code-mixing in a Canadian bilingual community is a necessary part of language acquisition. A nine-month study (Swain 1974) of one French/English bilingual child, dominant in French, showed many cases of deviation from French and English norms of lexical and structural use. Two researchers conducted the study, one of whom posed as a monolingual English speaker and the other as a monolingual French
speaker. The child achieved lexical consistency before structural consistency in the two languages and his growing sensitivity to language specific elements was thought to be due to the need to communicate with monolingual speakers of French and English.


"Code-switching... occurs early in children but at first is used mainly to express a word or an expression that is not immediately accessible in the other language. With time it is used as a verbal or communicative strategy and ultimately as a marker of group membership."

A description of the changing nature of code-switching is given by Vihman (1985) who studied an Estonian/English bilingual child. At the first stage of acquisition universal principles of child syntax are applied, then rules specific to each language are employed. This is accompanied by a drop in the level of mixing as the child achieves a metalinguistic awareness probably around the age of two. As the child develops his own perspective on code-mixing, there is a return to language mixing in the bilingual context which can be regarded as a more advanced stage.

PART 3: CONVERSATIONAL COMPETENCE OF NURSERY SCHOOL CHILDREN

Theoretically a nursery school child presented with a task in the company of one or more of his peers could remain silent, speak to himself, pay attention to what a partner says and make an appropriate contribution, speak in overlap with the speech of others or display random gaps between utterances. It seems likely that children who are more familiar with each other, and so sharing a conversational history, will have qualitatively better conversations than children who have hitherto been strangers. However, the effect of increased familiarity on the quality of conversation may not be measurable in children as young as four years, unless they have developed a capacity for social speech. The following section presents, in brief, a range of perspectives on how 'social' we might expect the language of nursery children to be.
A distinction between the two categories of egocentric (private) speech and sociocentric (social) speech was made by Piaget (1926) to describe the language of young children. Speech which was not adapted to listener's needs, egocentric speech, was said to be typical of the young child. At the first stage of development a child in the company of others was described as engaging in collective monologue, which is social in the sense that the presence of others acts as a stimulus to conversation, but egocentric in that the point-of-view of the other is not taken into account. With time, the child's language was seen as developing to a sociocentric state, where speech is adapted to the listener's needs. Piaget's work suggests that the transition to the sociocentric state is facilitated by same-age peer interaction when conflict arises as egocentric problem-solving strategies are challenged by a peer. However, up to the age of about six or seven the child was considered a poor communicator because of his inability to 'decentre' and appreciate the position and needs of the other participant in the conversation.

Evidence that young children can appreciate the position of others much earlier than Piaget proposed is presented by Donaldson (1978). If tasks are designed which are 'humanly comprehensible' in that they involve seeing another point-of-view from the standpoint of the other's feelings and intentions, rather than a literal reading of 'seeing' from another perspective, then children as young as three years are able to 'decentre' and take account of others in their communication. Donaldson says (1978 p.121):

All normal children can show skill as thinkers and language-users to a degree which must compel our respect, so long as they are dealing with 'real-life' meaningful situations in which they have purposes and intentions and in which they can recognize and respond to similar purposes and intentions in others.

Garvey and Hogan (1973) studied the videotaped play sessions of 18 child dyads aged 3½-5. They conclude, in line with Piaget's observations, that children of this age-range engage in
egocentric speech such as repetitions, monologuing and collective monologuing, together with muttering, self-answered questions and task self-guidance. However, most of the time the children's speech was social in that it was adapted to the speech or nonverbal behaviour of the partner. The greatest part of this social speech was composed of single exchanges but all dyads produced some sequences as long as three exchanges. Results comparing younger with older dyads in the 3½-5 age-range showed that older dyads were capable of producing proportionally longer sequences; eleven out of twelve of the older dyads formed sequences of six exchanges, compared with only half of the younger dyads. Sequences as long as twelve were recorded for both younger and older dyads. Garvey and Hogan (1973) say it may be more useful to consider children's language as 'sociocentric' from the outset.

A study by Pellegrini (1981) examined the effect of an audience on the production of private speech. The speech of preschoolers was compared in two conditions, one supportive of oral communication, free play, and one non-supportive of oral communication, doing puzzles with a non-communicative adult. The criteria for classifying speech as 'private' were lack of eye contact and reduced utterance volume. In the first condition, free play, when a response from an auditor was more likely, children were found to have higher coefficients of egocentricism (total private speech utterances divided by total speech utterances). The ratio of private to total speech utterances for all the children in the free play condition was 268:750 or 0.357. The same ratio for children in the puzzle condition was 9:111 or 0.08. The results were interpreted as supporting a view of the non-differentiation of private from social speech.

The general picture emerging seems to be that children of about four years can be described as egocentric, because there is no doubt that Piaget's findings can be replicated using the same tasks, says Donaldson (1978 p.23). However, sociocentric behaviour, in particular socially oriented speech, can be observed in young children if the task or situation is more
meaningful to the participants, and even overt apparently private speech may be uttered in the expectation of its reaching an auditor.

It may be that language is best viewed as sociocentric from the earliest stages. Macnamara (1972) proposed that language-learning is closely bound up with other types of learning and an ability to interpret situations concerning human interaction through processes of hypothesis-testing enables the child to acquire a knowledge of language in context. Agreeing with this position Bruner (1975a p.2) describes language as a 'specialized and conventionalized extension of co-operative action' used to regulate joint activity and joint attention. The emergence of this capacity to engage in co-operative action with others is observed quite early. Bruner cites evidence that children can distinguish very early the category of people from the category of things (Trevarthen 1974) and that distinctive responses are shown to each. Communicative intentions are observable in the first few months of life. Bruner (1975a) suggests that the child has an innate capacity for constructing schemata related to 'inter-subjective' events as compared with other events. Children's language is seen as developing out of the social interaction between young children and their mothers while they are engaged in joint activities such as pointing, searching or playing with objects (Bruner 1975b). From a different theoretical perspective, Vygotsky (1962) views language acquisition as a gradual internalization of dialogue strategies which have been overtly practised between an adult and child, but speech is likewise seen as having a social nature from the beginning.

Speech act theory (Austin, 1962; Searle, 1969) is concerned with the conventional communicative purposes of utterances. A wide range of communicative behaviours from prespeech to adult dialogue have been empirically investigated using various speech act taxonomies. Dore, Gearhart and Newman (1978) review the theory behind the development of one system, a 'task' model of conversation acts, which has been used to examine pre-schoolers'
use of language in conversation with an adult (Dore 1978). Different C-act patterns are reported for two different situations, the classroom and in a supermarket. A number of factors constituted the situation (which should be distinguished from the purely physical 'setting'). These included the number of participants, the ratio of adults to children, the interactive style of the participants, and the task. It was not possible to isolate the specific effects of each factor in the experiment as it had been designed.

In order that young children may use speech acts effectively they must be able to minimally sustain discourse and they must recognize the more specific pragmatic rules connected with certain speech acts, such as that a request is followed by a response. The conversations analysed by Dore (1978) between young children and an adult were sufficiently 'social' to apply a conversation-act (C-act) and sequencing analysis (the C-act coding is reprinted in section 10;1). It is suggested that peer interactions without teacher support are much less complex than teacher-child interactions. Dore et al (1978 p.383) say:

Their talk may be a flow of collective and private monologue interspersed with genuinely communicative exchanges.... Children tend to mesh their talk with their simultaneous actions; the context for their talk is largely limited to local, ongoing activities.

A study by Pelligrini (1982) adopted Dore's C-act analysis in an examination of the conversations of same-age dyads of children, in the 3 to 5 age range, who were doing puzzles. He concludes that the ability to use language to direct peer behaviour develops during the pre-school period. Three sub-categories of age-range were compared. All groups were able to use speech acts to minimally sustain discourse but the oldest group used more language which specifically guided peer behaviour, such as rules/explanations, directives, and responses to requests.
As far as the flow of conversation is concerned, how competent could we expect young children to be in sharing the speech stream? Ervin-Tripp (1979 p.392) summarizes the work on adult turn-taking. Adult Americans overlap only briefly, allow short gaps between turns, but tend to overlap more when sequences are more predictable, e.g. at conversation closure. But social norms may vary and in an Indian-English study (Agrawal, 1976) interruptions were interpreted as a gesture of co-operative talk. Ervin-Tripp predicts that, aside from social norms, for the purely 'utilitarian' reason that conversationalists are interested in the speech of others, we would expect nonoverlaps and long gaps in young children's conversations. Garvey and Hogan (1973) report a rate of one utterance every 4.6 secs. for the 18 dyads, aged between 3½ and 5, which they studied in a play situation.

In the present study we might expect, given a meaningful task with novelty value which requires joint attention, that children should generally be able to minimally sustain discourse. Monologuing, collective monologuing, egocentric/private speech not directly linked-in to the previous turn are likely to occur but smaller proportions are expected when children know each other well. If the situations are similar, the range and proportions of C-acts for each conversation should be similar. But if 'number of participants' is a factor affecting the situation, as Dore suggests it might be, or additionally if 'familiarity of participants with each other' is a factor, then the range and proportions of C-acts may vary for different conversations.
CHAPTER 4
CO-OPERATE OR CONFLICT: CONCEPTS FROM INTERPERSONAL BEHAVIOUR RESEARCH

The present section draws on research into personality theory and the interpersonal dimensions of social behaviour which may provide a model for the type of behaviour I have referred to as sociolinguistic code switching/mixing in young bilinguals. The particular area of personality theory which is of interest is the representation of the relationship of personality traits or modes of behaviour to each other. Two different types of approach can be identified in the literature; the search for underlying factors by factor analytic methods and the elaboration of a circumplex model. The term circumplex (Guttman 1954) refers to a circular arrangement of variables derived from an intercorrelation matrix. Variables which are placed adjacent to each other on the circle are more closely related than those further apart. In a circumplex model of interpersonal behaviour it is the ordering and spacing of the variables (traits) on the circle which defines their structure. The interrelationship of behavioural modes displayed on the circumplex model is of particular interest in the present linguistic study. I will first consider the trait/state distinction, then mention some early circular representations of interpersonal behaviour, leading on to a more extensive presentation of recent circumplex models and finally to the concepts from these which can be transferred to a psycholinguistic/sociolinguistic setting, under the heading of flexible response modes. There is a final note on terminology.

4; 1 TRAITS AND STATES

Construction of personality theory generally begins with a compilation of trait terms, words describing the whole range of possible behaviours. The selection of a set of generic terms from this original set which will be representative of the spectrum of
interpersonal behaviour is the task of the personality theorist. Conte & Plutchik (1981) give an idea of the size of the problem. They derived a list of 223 trait terms from eight sources which included more than 20,000 trait names. Allport & Odbert, as early as 1936, compiled a list of 17,953 words referring to personality which has served as a basic reference point for many theorists. A distinction was made at the time between traits and states and about a quarter of the total were listed under traits and a quarter under the heading of states, the remainder were considered as social evaluations or of metaphorical/doubtful status. Traits and states can be distinguished by their frequency of occurrence. Behaviours which are performed with apparent regularity are judged to emanate from within the individual (traits) whereas behaviours performed only occasionally (states) are seen as being dictated by fleeting social, physiological or environmental conditions. The trait/state distinction pervades the personality literature but it can also be argued that the division is an arbitrary one (Allen & Potkay 1981), since descriptive terms can feature in both trait and state lists.

Although I will be examining theoretical taxonomies of personality which deal with the domain of traits, or more specifically interpersonal traits, an extension of models to encompass temporary behaviour states or moods may prove to be more appropriate for transfer to a sociolinguistic setting.

4.2 A CIRCULAR MODEL OF INTERPERSONAL BEHAVIOUR

A circular ordering of interpersonal constructs was proposed in the 1950's by a number of investigators, Leary (1957) and associates (Freedman, Leary, Ossorio & Coffrey, 1951; LaForge & Suczek 1955), but the formulation was primarily theoretical; variables were arranged in a circle then the statistical pattern was shown to follow the conceptual one.

These researchers started with a set of 'several hundred' interpersonal descriptive words which on inspection all seemed to have some reference to the two factors of power or affiliation.
They then refined sixteen generic interpersonal factors from the first array of terms and arranged these in two-dimensional space around the four nodal points of the two axes of power and affiliation. The four points were *Dominance - Submission* on the vertical (power) axis and *Hostility - Affection* on the horizontal (affiliation) axis. So, for example, one of the sixteen generic terms, *mistrustful*, would be a blend of submission and hostility and would be positioned in the third quadrant of the circle.

The placement of traits around the circle in a theoretical model is somewhat arbitrary it has been argued (Conte & Plutchik 1981), but data from LaForge & Suczek (1955) has shown that the sixteen variables they employed correlate more closely with adjacent items than with variables one step, two steps etc. apart. So the units around the scale are correctly ordered although they may not be equidistant.

4:3 CIRCUMPLEX MODELS OF INTERPERSONAL BEHAVIOUR

A *circumplex* according to Guttman's definition (1954) is a model depicting a circular ordering of variables based on their degree of similarity. Variables next to each other on the circle are highly correlated and coefficients reduce with the increase in distance between items on the circle. An example may clarify the concept:- when the variables are personality traits, adjacent items, which would share semantic features, might be, e.g. peaceful and co-operative. Examples of variables placed opposite each other in the circle which share no semantic features could be, e.g. argumentative and obedient. The circumplex is mathematically derived from the intercorrelation matrix of the variables under consideration. The matrix is factor analyzed and the first two factors are extracted. The loading of all the variables is then plotted on two orthogonal axes which represent the first two factors. The location of the variables should form an approximate circle.

Foa (1961) reviews work by Borgatta et al (1958) and Schaefer (1959) which supports a circumplex order or at least part of one.
In the first study personality trait rankings of members of graduate student groups, by their peers, were factor analyzed. Two major factors emerged of Individual Assertiveness and Sociability. The authors show that intercorrelations among thirteen personality variables loaded on the two major factors. These could be arranged in a simplex i.e. along a line where each variable correlates higher with variables which are nearer to it along the line and lower with variables further away. When these variables were plotted on two co-ordinates according to their loadings on the major factors, very few variables had a negative loading on Sociability which suggested that the original set of variables was biased in that it excluded traits which were unsociable and unassertive. If such traits had been included, the simplex would probably have folded on itself into a more circular order.

Schaefer analyzed data from mother-child dyadic interactions and found two major factors of Control-Autonomy and Love-Hostility which resemble closely those of Individual Assertiveness and Sociability reported by Borgatta. The correlation coefficients in this case fall into the circumplex pattern although there is a gap where variables representing unsociability could be expected.

Wiggins (1979) established sixteen preliminary clusters of interpersonal traits based mainly on the Leary (1957) system, and demonstrated that the domain of interpersonal traits was best described with reference to a circumplex model. One difference was that in Wiggins' model the configuration of generic terms was adjusted so that vectors appearing opposite each other on the circle were bipolar opposites. However the same basic axes of Dominant-Submissive and Warm-Cold featured in the model.

A number of other studies have demonstrated that the first two factors arising from a factor analysis account for most of the variance when personality is defined in terms of interpersonal relations (Becker & Krug 1964; Kassenbaum, Couch & Slater 1959; Schaefer & Plutchik 1966). Evidence has also been accumulating that when the interpersonal variables are plotted
on the orthogonal axes representing the two major factors they fall into a circular pattern. The circumplex model of personality which is claimed to be 'parsimonious and meaningful' (Conte & Plutchik, 1981, p.701), and 'potentially falsifiable' (Wiggins, 1979, p.399) has emerged from empirical observations in two recent studies (Conte & Plutchik 1981 and Fisher et al 1985). Conte & Plutchik discuss the development of the model and say (p.702):

There thus appears to be considerable stability of results across studies using different methodologies and different populations of subjects. This relative invariance can be thought of as a direct function of the implicit circular ordering of traits which a circumplex analysis makes explicit.

In their own study they sought to determine exact locations for the personality variables around the circle. Deriving a set of 223 trait terms from the massive array mentioned earlier (in section 4.1), they, first, used a modified paired comparison method to locate the terms on a circle. The ordering was then checked by an independent method utilizing factor analysis of semantic differential ratings of a sample of 40 of the terms which verified the first ordering.

The authors conclude that the model describes in two dimensional space the interrelations among a set of trait terms that adequately represent the interpersonal trait domain. However, in preference to labelling the axes of the two dimensions as Love-Hostility or Dominance-Submission, they suggest a new perspective on the issue. If the circular ordering is correct, they say, then any particular axis is arbitrary and no more basic than any other. Clusters of traits appear probably because of initial selection of trait terms. Axes are simply arbitrary reference points which are methodologically necessary so that factor loadings can be plotted. When the positions of trait terms relative to each other have been established then the axes can be removed, and relations expressed through the circular network.
But the two axes of Dominance-Submission and Love-Hate (Warm-Cold) have become accepted notions in the interpersonal behaviour literature e.g. Lorr & McNair (1965); Argyle (1970). I would like to move the axes rather than dispense with them and suggest that a new focus on an axis of Co-operation/Conflict, where Co-operation is a blend of love and submission and Conflict is a blend of hate and dominance, could provide a shift of vision. If the D-S vertical axis is moved about 35 degrees anti-clockwise we have a new perspective on interpersonal relations and group dynamics. It is theoretically possible for everybody to co-operate in interpersonal relations, but since interactants usually start from an individually preferred position (egocentric) then conflict can be seen as a necessary short-term behaviour to achieve a co-operative solution (sociocentric).

FIGURE 4: Angular placement of 171 personality trait terms based on the method of direct similarity scaling (Conte & Plutchik 1981). Axes have been marked in for: A. Dominance-Submission, B. Love-Hostility, C. Co-operation-Conflict.
Figure 4.1 shows the Conte-Plutchik circumplex for trait terms. I have marked in the two axes D-S, L-H, which they have dispensed with, for purposes of comparison with the suggested Co-operation/Conflict axis.

4.4 FLEXIBLE RESPONSE MODES

My attempt to make use of a reinterpreted version of personality psychology as a framework within which to understand co-operation/conflict in two-language conversations is not entirely unproblematic. One problem is that I have taken a model from personality trait theory, where terms represent a disposition of an individual to respond in characteristic ways and transported it to the arena of flexible behaviour characteristics, of states and moods. Instead of referring to a person as high on conflict, I would like to say that X conflicts in one situation and co-operates in another. Has this notion been accommodated in the literature? A number of studies show that it has. I will briefly consider 'interactionist' personality theory, then an extension of the circumplex model of personality traits to temporary moods.

Whether an individual's behaviour is determined largely by dispositional characteristics or by the different situations in which he finds himself or by an interaction of the two is an important issue in personality theory. Allport (1966) and Gormley & Edelberg (1974) favour a traditional trait approach to personality, believing that behavioural characteristics are relatively stable over time and across situations. An alternative position stresses situational determinants as most significant in determining a person's behaviour (Mischel 1968, 1969). In its extreme form the 'situationalist' position denies individual differences. The 'interactionist' position provides a compromise between the two extremes, where person variables are seen as interacting with situational variables. Endler & Magnusson (1976, 1978) support the interactionist position and note that: 'most of
the formulations of modern trait theorists are compatible with an interactional model of behaviour' (1978 p. 592).

So an orientation towards the interactionist position in personality theory will allow the kind of flexibility required to apply the circumplex model to behaviour which does not necessarily emanate exclusively from dispositional characteristics of the individual, but rather, is to some extent determined by the situation in which a person interacts with others.

One recent study (Fisher et al. 1985) has extended the circumplex model of personality trait language to self-reported moods. Several criticisms of the Conte-Plutchik circumplex are discussed. The major difficulty is that since judges rated the meaning of trait terms rather than their own behaviour a semantic rather than a psychological taxonomy would have resulted. This possibility is a consequence of the rater invoking an implicit personality theory (Bruner & Tagiuri 1954; Mulaik 1964) which is a conceptual framework that judges carry around in their heads developed partly from experience of how people behave but which is also a reflection of the implicit similarity and bipolarity of linguistic terms. The Fisher et al. study aimed to show that the circumplex derived from behavioural self-ratings matched the Conte-Plutchik circumplex of personality traits. 141 college students were asked to self-rate their mood twice a day, over 15 days. It was found that the circumplex generated by these behaviour measures compared well with the Conte-Plutchik circumplex of semantic ratings. They conclude that there is little difference between the two, so confirming Russell's (1980) thesis that the implicit personality theory that raters invoke when they make judgements of similarity has much in common with the cognitive process which raters use when interpreting their own affective experience. The relation between trait and state is clarified in the conclusion:

Although the items in the Conte-Plutchik circumplex were carefully chosen to represent behavioural traits, even to the extent that state specific terms were screened out in
the selection process, the underlying theory of the circumplex model is that personality traits form a circumplex because they are aggregates of affective states that also have a 'circumplicial' structure (Plutchik 1980). Our analysis supports Plutchik's hypothesis of state to trait continuity. (Fisher et al 1985 p.241)

From the preceding studies I would like to take the notion of an axis of Co-operation/Conflict from the circumplex model at the level of state rather than trait and to consider an involuntary interpersonal response, which a person may or may not be aware of, termed co-operate or conflict, and to transfer this to a sociolinguistic setting. The interpersonal response of co-operate/conflict will be proposed as an underlying mechanism in code-switching behaviour.

4:5 TERMINOLOGY

The term 'conflict' may seem unduly harsh to describe a code-switch, perhaps because conflict has been equated with aggression in the psychological literature. A multitude of terms have been used almost interchangeably to describe conflict behaviour, says Shantz (1987 p.284), such as: aggressive, agonistic, assertive, aversive, coercive, conflictual, disruptive or even negative. It is suggested that a dyadic conception of conflict is more appropriate, where the incompatible behaviours or goals of the two participants are overtly opposed and the aim is to overcome the other's opposition or resistance. Most conflict, then, can be seen as behaviour which does not necessarily involve aggression although aggressive behaviour tends to arise in the context of social conflict.

The personality trait terms in the 'conflict' region of the Conte-Plutchik circumplex (Fig. 4;1) confirm that the term has acquired over-intense connotations of hostile behaviour. As well as referring to the code-switching behaviour of young bilinguals as 'conflict', I propose to adopt the term 'defection' from mathematical game theory and talk of conversational defection. Additionally, with reference to the content of the message, the
term disaffiliative behaviour will be used, which is intended to imply conflict with an absence of aggression.
CHAPTER 5
CO-OPERATE OR CONFLICT: MATHEMATICAL GAME THEORY AS A MODEL

The ideas expressed in this chapter, coming from a variety of fields, are linked together by a common thread in that they all relate to mathematical game theory and the classification of behaviour along the co-operate/conflict dimension which was discussed in the last chapter. I will give a brief introduction to game theory and its vocabulary, then consider the simplest game analysis, the 2 x 2 zero-sum game, and show how this model could be applied to make predictions about a bilingual situation. Different levels of 'rationality' are considered leading to a higher level analysis where a collectively rational solution is for a speaker to co-operate with an interlocutor. For child language, a trend towards language homogeneity in bilingual conversations is predicted, but a different analysis is possible for adult speakers in a situation of language contact. Then, the next section will cover the evolution of co-operation in animal species in the game theoretic framework. Finally, there is a mention of the logic of asymmetric contests and how this might be applied to a bilingual community.

5.1 GAME THEORY

When the term game is used by game theorists, they mean a social situation involving two or more actors (players), in which the interests of the players are interconnected or interdependent (Zagare 1984). Poker, noughts and crosses and chess are games in this sense but so are business decision-making processes and military operations. Since Von Neumann and Morgenstern (1953) formalised game theory with reference to economics, game theoretic models have had applications in a wide range of fields: politics, psychology, sociology, and more recently in the evolution of behavioural characteristics (e.g. Maynard-Smith & Price 1973; Maynard-Smith 1974, 1982). One key concept in game-theoretic analysis is that players are rational and will act in
such a way as to bring about the most preferred of possible outcomes, assuming that the other party is acting in the same way. In the strictest sense this rationality is self-interested, the rational player is playing to enhance his own position and has no conception of collective interest. When game analysis is transferred to the field of evolutionary biology then the notion of rationality is replaced by population dynamics and stability and, instead of the concept of a self-interested player, we have the notion of fitness in the Darwinian sense. A first impression may be that a model which takes rational decisions or stable behaviour states as a prerequisite is an unlikely candidate for application to code-switching behaviour in bilinguals, which has been described as 'an irregular mixture of two distinct systems' (Labov 1971 p.457). But it is precisely the rationality of the analysis which reveals non-rational psychological states. Rapoport in his conclusion to 'Two person game theory' (1966 p.214) says:

The great philosophical value of game theory is in its power to reveal its own incompleteness. Game theoretical analysis, if pursued to its completion, perforce leads us to consider other than strategic modes of thought.

5; 1; 1 A 2 x 2 zero-sum game

The figures 2 x 2 refer to two players who each have a choice of two possible moves in the game. As an illustration (from Venttsel 1963 p.6) consider players A and B who each have a coin in front of them. In one play of the game they each have to choose whether they will show 'heads' (h) or 'tails' (t). If the coins show the same sides (both heads or both tails) then A wins and scores 1 point. If the coins show different sides (one 'heads' and one 'tails') then B wins and scores 1 point. Figure 5;1 shows the payoff matrix for the game.

The game is described as zero-sum (as opposed to non-zero sum) because A gains by the same amount that B loses and vice-versa. One play of this particular game is not particulary
enlightening, but imagine the players repeating the game a number of times. Since they are acting 'rationally', then they are both playing to win. What would be the best strategy? Consider person A, if he chooses a pure strategy, for example: h, h, h, h, his opponent, B, will quickly adopt the pattern: t, t, t, t, to produce the condition of 'different sides' so that he can win. If A pursues a mixed strategy he is more likely to win. It turns out that A's best strategy is to use both of his pure strategies (heads and tails) at random but an equal number of times. The same optimal strategy applies for B. In fact, since the game is zero-sum, nobody will win if A and B both pursue their best strategy.

FIGURE 5:1
Payoff matrix for person A - 2 x 2 zero-sum game

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(h)</td>
<td>1</td>
<td>-1</td>
</tr>
<tr>
<td>(t)</td>
<td>-1</td>
<td>1</td>
</tr>
</tbody>
</table>

(h)=heads  (t)=tails

In order for a situation to fit the game-theoretical framework certain conditions have to be met; there must be choice of actions, and as well as being interdependent, outcomes have to be unambiguously defined and assigned a numerical value, players should show distinct preferences among outcomes and they are then assumed to behave in a rational manner, by making the most self-advantageous choices to maximise their payoff. The 'heads and tails' game fulfils these conditions but it is difficult to see how bilingual code-switching behaviour could meet the criteria. A major problem is the difficulty of establishing distinct preferences and assigning a payoff value to choices. How can we
say that bilingual X prefers Punjabi (in a given setting) and that the payoff to him if he succeeds in weighting the conversation towards higher proportions of Punjabi than English is a numerical value $p$? This task is conceptually possible, however, if after examining a sample of X's conversations with other bilinguals, statistical probabilities are calculated as an inductive prediction of how X will code-switch his speech on future occasions. Let us consider, instead of the bilingual speakers as players, a convenient abstraction where the two languages, Punjabi and English, are players in a game. Can such an abstraction be justified?

5; 1; 2 First analysis: languages as players, a 2x2 bilingual game

Linguists are on the whole occupied with finding rules at various levels of analysis, apart from sociolinguists who stress that the actual data of everyday speech does not always fit the formulated rules. Language is often treated as an object outside its social context. I am proposing that the bilingual's two languages can, similarly, for the purposes of analysis, be regarded as existing as entities apart from the psychological state of the speaker. The application of game theory to 'depersonalized' languages could be seen as the same order of abstraction as a grammatical analysis which disregards social context. In this analysis it would not be the 'people' who are the players, because their psychological states are not easily quantifiable and are 'irrational' in that the speakers cannot always be viewed as trying to maximise their payoff when in conversation with their interlocutors. For instance, it would be difficult, in the game matrix, to accommodate the idea that an individual may wish to identify with, or distance himself from, his interlocutor.

Let us assume, then, that whereas people, with a choice of language or register available to them, are prone to psychological states which cause them to behave irrationally, languages, can act rationally in the sense that they can make
choices which are 'preferable' to themselves. I suggest a separation of the psychological state of the speaker from the language he uses so as to allow a simple application of game theory.

We can consider the languages, in this case English and Punjabi, as players in the game. A systematic analysis is possible if we say that, since languages are rational in the sense that they are rule-governed, then for the sake of structural consistency, an English unit prefers to be followed by an English unit and a Punjabi unit prefers to be followed by a Punjabi unit. Since choice of Punjabi excludes choice of English at any one point and vice versa, the payoff matrix is quite simple. When P (Punjabi unit) follows P the payoff is 1. Similarly when E (English unit) follows E the payoff is 1. But when E follows P, or P follows E the payoff is -1. The resulting bilingual payoff matrix is shown in Figure 5;2.

FIG. 5;2
A bilingual game matrix for both Punjabi and English as players

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>1</td>
<td>-1</td>
</tr>
<tr>
<td>E</td>
<td>-1</td>
<td>1</td>
</tr>
</tbody>
</table>

But according to the game-theoretic model the players adopt rational strategies to achieve maximum payoff, so Punjabi and English would both be competing against each other at every choice point, be it word, clause or sentence boundary. The optimal strategy, noted above, is for each player to use both of the pure strategies at random and an equal number of times. Since there are so many potential switch points in a stretch of conversation then the pattern of code-switching which would be predicted from this model is one of random and frequent switching.
where the mean payoff is zero, so neither Punjabi nor English would be proportionally over-represented in the total conversation.

If the predicted pattern was not found, how could the results be explained? The psychological states which were abstracted out when languages rather than people were considered as players would have to be reconsidered in line with the quotation from Rapoport (see section 5;1) that where game theory fails to predict a result by rational analysis, it allows us, indeed 'leads us to consider other than strategic modes of thought'. So the human element (the interpersonal aspect of the social context) in the bilingual game would be exposed by the 'depersonalized' language analysis.

Sociolinguistic evidence points to the fact that choice of language is not a rational decision (Gumperz & Hernández-Chavez 1972 p.88; Hasselmo 1970 p.208; Labov 1971 p.457; Lipski 1978 p.255; Valdés Fallis 1976 p.53), at least not in the strict game-theoretic sense that a person chooses his language units on the basis of wanting to maximise his payoff against his interlocutor. If language is considered as part of a person's past and identity, he can be seen as choosing speech acts so as to identify with, or distance himself from his interlocutor (Le Page 1985 p.181). These are just two of the non-rational choices which an individual contributes to the process of code-selection. He makes these choices, consciously or unconsciously, depending on how he views the other person in an interpersonal exchange.

I would like to consider, in the framework being developed here, the moods and states highlighted in the last chapter, in particular the interpersonal responses of co-operate or conflict/defect. I suggest that the psychological state of co-operate or defect, emanating from the person/persons in the game, can be seen as acting on the players (which are the two languages).

Where a bilingual dyadic conversation does not exhibit the 'frequent and random switching' which the bilingual matrix in Figure 5;2 predicts then the following general interpretations

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are possible: firstly, stretches of conversation in which either Punjabi or English is maintained represent co-operation; secondly, a non-switched conversation represents total co-operation; thirdly, a conversation where one person speaks one language and the other person speaks another shows total defection; fourthly code-switches represent defection. These observations will be considered in a discussion of the dyadic conversation profiles which represent the 'depersonalized' play-off between the two languages. This can be found in section 8.1.

Considering the languages as players and co-operate/defect as psychological states allows us to make abstractions which yield general predictions about overall conversational trends. Perhaps a different game-theoretic analysis is possible, taking speakers as players, now that the psychological states have been identified as co-operate and conflict/defect. To be of practical use, this analysis would consider conversational turns as moves in a game in which the psychological states of the players and the languages they use interact with each other. This possibility is further explored in the final section of this chapter.

5.1.3 Second analysis: levels of rationality, individual or collective rationality

The notion of individual rationality has been used in the game analysis so far. Rapoport (1966 p.130) describes this behaviour:

By definition a 'rational player' looks out for his own interest only. On the one hand, this means that the rational player is not malicious - that is, he will not be motivated to make choices simply to make the other lose (if he himself gains nothing in the process). On the other hand, solidarity is utterly foreign to him. He does not have any concept of collective interest. In comparing two courses of action, he compares only the payoffs, or the expected payoffs, accruing to him personally.

But 'rationality' can have many meanings and we can speak of levels of rationality. The Classic Prisoner's Dilemma game (also
referred to in the next section 5;2) provides a model for the notion of collective rationality.

The Prisoner's Dilemma game for two players has different payoff values for the joint moves of the players. Figure 5;3 shows the payoff matrix. If both players co-operate they both score (1 each). If one co-operates and the other defects, the defector does well (scores 2) but the co-operator scores rather badly (scores -1). If both defect, they neither gain nor lose (0 each).

**FIG. 5;3**

*Payoff matrix for the Prisoner's Dilemma*

<table>
<thead>
<tr>
<th></th>
<th>Defect</th>
<th>Co-operate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defect</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>1</td>
</tr>
</tbody>
</table>

In the absence of negotiation or binding agreements, a player of this game, operating an individual rationality, cannot be induced to play C (co-operate). Whatever the other does, it is to his advantage or lesser disadvantage to play D (defect). If both players reason this way, then they are both worse off than if they had chosen a solution of mutual benefit, i.e. both C. The notion of collective rationality prescribes a different strategy, that both participants choose C.

There can also be a higher order of rationality which takes conditional response probabilities into account. For instance, in an iterated version of the Prisoner's Dilemma game, a choice of C after CC would indicate trust between the players, C following DD would show a readiness to initiate co-operation in a position of mutual distrust and D following CC would demonstrate an
exploitation of goodwill. This 'dynamic' conception of rationality is described by Rapoport (1966 p.210) as:

... an ability to read the environment, to change one's hypotheses in accordance with acquired information and, by acting on the hypotheses, to affect the environment, in particular the perceptions of other actors like oneself.

Let us consider how the notion of a dynamic collective rationality in the game of Prisoner's dilemma could be transferred to a bilingual code-switched conversation. Taking a conversational turn as a move in the game, on each turn speakers have the choice of co-operating, by staying in the same code, or defecting, by changing code or code-switching in the middle of a turn. Code-switches mid-turn complicate the picture and a technique for categorising conversational turns as co-operation or defection is elaborated upon in the results chapter (section 7;2). However, there are still only two choices as far as language is concerned, code-switch (defect) or non-code-switch (co-operate). One element in the 'rationality' of this solution is that speakers favour language homogeneity, which happens to be the case for many young children, as the studies reported in Chapter 3, part 1 show. So in this case the 'collective rationality' is to solve the dilemma of having two languages available to both players by increasing the proportions of C following CC (where C is a turn involving no code change) as the conversation or friendship progresses. There could, however, be other solutions.

Imagine, for instance, a population of adult bilinguals who are well practised in switching and mixing codes such that the task presents no extra cognitive load for them, their reading of the environment could be such that advantages are to be bestowed on them, by showing themselves to have access to both social groups which the two languages represent. In this case the collective understanding of how to solve the two-language dilemma would be to co-operate in switching and mixing codes. For these speakers three code-mixed turns (or some unit other than a turn)
would be interpreted as C following CC. It is difficult to see how the 'collective rationality' could be fully described in such cases without recourse to speaker intuitions which is, in fact, the methodology of much of the work on code-switching (e.g. Blom & Gumperz 1972; Gumperz 1982; Kachru 1978; Lavandera 1978(b); Le Page 1985; Verena 1976).

5;2 THE EVOLUTION OF CO-OPERATION IN ANIMAL SPECIES

A discussion of the evolution of co-operation in animal species is appropriate because it offers an analogy for the conditions under which humans can achieve co-operative behaviour and at the same time accounts for restraint in conflict. So the dimension of co-operation/conflict which was focussed on in interpersonal behaviour research (Chapter 4) receives support, together with the idea of dyadic conflict without aggression (section 4;5). The account which will be given hinges on other applications of mathematical game theory. I will first mention restraint shown by animals in intraspecies conflict and consider how game theory has been adapted to fit the evolutionary context, with the associated concept of an evolutionarily stable strategy (Maynard-Smith & Price 1973; Maynard-Smith 1974). This will lead into a recent theory of co-operation based on reciprocity (Axelrod & Hamilton 1981; Axelrod 1984) and suggestions for how some of the ideas could be applied to code-switching behaviour.

5;2;1 Intraspecies conflict

Observations of intraspecies conflict among animals reveal that most is of a 'limited war' type, fighting is rarely fatal. Lorenz (1966) presents a case for the 'gloved fist' nature of intraspecies aggression typified by ritualized fighting. Maynard-Smith & Price (1973 p.15) comment: 'How can one explain such oddities as snakes that wrestle with each other, deer that refuse to strike foul blows and antelope that kneel down to fight.' A previously accepted view was that natural selection in respect of
aggressive and co-operative behaviour took place at the group level. An explanation would be something like: limiting serious injury to combatants is necessary for the survival of the species, or a species whose members were prepared to sacrifice themselves for the good of the group would be less likely to become extinct. Recently it has been claimed that, at the level of species, the processes of selection are too weak to provide an adequate account and a return to Darwin's individual level of selection gives the best explanation of the evolution of ritualized behaviour in animal conflict (Maynard-Smith & Price 1973; Axelrod & Hamilton 1981).

5;2;2 Kinship

An explanation of co-operation and altruistic behaviour has always posed a problem in the Darwinian framework because survival of the fittest individuals and co-operative behaviour towards other individuals, which implies a reduced individual payoff, seem to be opposed. One extension to evolutionary theory seeks to explain co-operative behaviour between kin. Dawkins (1976) argues that the fundamental unit of selection is the gene (i.e. at a lower level of selection than the individual). The gene, it is claimed, is a self-interested entity concerned with perpetuating and increasing its replicas in future generations. In pursuit of this end, closely related individuals, who have sets of genes in common, are driven to behave altruistically towards each other. Evidence from animal species besides humans confirms that altruistic and co-operative behaviours usually occur when the interactants are related. It is suggested then that to build a society in which individuals co-operate generously and unselfishly towards a common good, will be with little help from biological nature. There remains some hope, however (Dawkins 1976 p.3):

It is a fallacy.... to suppose that genetically inherited traits are by definition fixed and unmodifiable. Our genes may instruct us to be selfish, but we are not necessarily
compelled to obey them all our lives. It may just be more
difficult to learn altruism than it would be if we were
genetically programmed to be altruistic.

5;2;3 Reciprocity and the evolutionarily stable strategy

Another development in evolutionary theory, the idea of
reciprocation, where the strategy adopted by a member of the
population is dependent on strategies adopted by others, leading
to restraint in conflict situations, has been developed by
Maynard-Smith & Price (1973), Maynard-Smith (1974) and Maynard-
Smith & Parker (1976) with reference to the concept of an
evolutionarily stable strategy. They employed game theory in a
unique way to show that ritualized conflict behaviour can evolve
by individual selection.

In ordinary game theory with repeated plays of the game the
notion of equilibrium is important. Once the equilibrium point is
reached it will not pay a player to change his strategy so long
as the other players maintain theirs, as his payoff cannot be
improved upon. When the game analysis is applied in evolutionary
biology the equilibrium idea is represented by the evolutionarily
stable strategy (ESS) which when adopted by most of the members
of the population cannot be bettered in terms of reproductive
fitness. We need not assume that the players are rational beings,
instead it is the player's genes which make him use the strategy.
Maynard-Smith & Price (1973) ran a computer simulation between
different hypothetical strategies: mouse, hawk, bully,
retaliator and prober-retaliator in an intraspecies conflict
situation, to ascertain whether limited conflict behaviour could,
theoretically, be accounted for by individual selection. The
moves available were C = conventional fighting tactics, D =
dangerous fighting tactics, and R = retreat. Mouse never plays D
and retreats in the face of D. Hawk always plays D until
seriously injured. Bully plays D if making a first move and plays
D in response to C. He plays C in response to D and retreats if
the opponent plays D again. A retaliator plays C on the first
move, plays C if the opponent plays C, and with high probability plays D in response to D. Prober-retaliator would behave similarly but there is always a small probability that he will play D in response to C. After giving a D probe, he reverts to C if the opponent retaliates, but 'takes advantage' by continuing to play D if the opponent plays C.

The strategies which proved most successful against all the others were retaliator (an ESS) and, to a lesser extent, prober-retaliator (nearly an ESS). Over time a population of these various strategists would tend to evolve to a point where retaliator and prober-retaliator were maintained at high frequency with the others at low frequency through mutation.

5;2;4 TIT FOR TAT behaviour

The general principle that an ESS for co-operative behaviour can evolve in a population of initially self-interested individuals (egoists) has been developed by Axelrod & Hamilton (1981). They base their model on the Classic Prisoner's Dilemma game (described in 5;1;3) and include the idea of participants interacting repeatedly.

From the payoff matrix in Figure 5;3, it can be seen that in one play of the game or if the chances of a repeat interaction with a given player are small then the best policy is to adopt an 'individual rationality'; it pays to defect. There is an individual incentive to defect regardless of what the other player does. Defect is an ESS and no other strategy can invade it for single plays of the game. However if both players defect, then jointly they do less well than if they had co-operated, hence the dilemma. So in a social group where individuals are likely to meet again and remember each other a co-operative strategy would pay in the long term. Assuming, that players will interact again, in the iterated Prisoner's Dilemma, with a probability p, the best strategy to adopt would depend on the history of interactions between those players.
In a computer tournament which was run between different strategies to find the most successful solution to the Prisoner's Dilemma, the winning strategy, submitted by A. Rapoport, was one of co-operation based on reciprocity called 'TIT FOR TAT'. This strategy is simple: co-operate on the first move and do whatever the opponent does on subsequent moves. TIT FOR TAT (TFT) can be described as 'nice, provokable and forgiving'. A TFT strategist is never the first to defect and returns to co-operate if the other player does, acting as though remembering only one move back. Proof that the TFT strategy is both robust and evolutionarily stable for a sufficiently large probability of repeated interactions is presented by Axelrod & Hamilton (1981 p.1393).

There is a problem of how co-operation could get started in a world where all are defectors, since defect is also an ESS. A solution, it is claimed, could be provided by kinship and clustering. According to the 'selfish gene' theory close relatives will help each other in order to promote the spread of common genes. Kin selection may be needed for the initial spread of a strategy, then if individuals mostly play with their neighbours a cluster of TFT strategists will emerge who can invade a group composed of virtually all 'always defect' strategists. TFT once established with a sufficiently high probability of repeat interaction between individuals is stable enough to withstand invasion from a cluster of any other strategy.

Another explanation of how TFT may evolve in a primordial world (full of defectors), where the chance of reinteracting is minimal, is that TFT may evolve from a less co-operative ancestor who is well adapted to a defector's world. Bartholdi et al. (1986 p.135) suggest that a missing link could be a suspicious TFT (STFT), who defects on the first move of a game but then reverts to TFT. The authors claim that STFT would be a viable strategy in a world where relationships are transient.
There has been some discussion in the literature on whether the ESS can be learned. In the strictest sense the ESS is genetically encoded and if the kind of behaviour described as that of a 'retaliator' or TFT is learned rather than preprogrammed then it will have to be renamed. The developmentally stable strategy (DSS) has been suggested (Dawkins 1980; Harley 1981; Maynard-Smith 1982). Harley's (1981) study showed that a generalized learning rule which is not specific to a particular game can take a population to an ESS in one generation, but this is unlikely to provide an explanation for the development of a TFT strategy, says Maynard-Smith (1982 p.171). Because an individual would be required to start with a number of possible strategies (TFT being one of many), he would have to play long matches against individual opponents and adjust frequencies of response based on outcomes of past matches before discovering that TFT was the best strategy. 'One lifetime would not be long enough for such an inefficient learning process'. Once established in a group, however, learning could be important in maintaining the most appropriate strategy, since it would not pay to deviate.

I suggest that TFT behaviour could provide a model in bilingual code-switching, where the rule is speak the language the stranger speaks to you, if he defects by code-switching do the same, but be prepared to show co-operation by staying in the same code as your interlocutor. If he says something disaffiliative, retaliate but be prepared to be forgiving (i.e. return to co-operation). If four-year old children behave in this way, it could lead to a fairly strong claim about co-operative behaviour and restraint in conflict being an ESS which has been genetically encoded. If co-operative behaviour exists in a community of four-year old children, perhaps we should look at why researchers find it necessary to examine how 'behaviour to which some sort of 'morality' can be imputed can spontaneously
emerge from a world of selfishness' (Bartholdi et al. 1986 p.131), when the world of selfishness is not the biological creation.

5;3 ASYMMETRIC CONTESTS

Contests in the game theoretic framework may be symmetric or asymmetric. When players have the same choice of strategies, are assigned the same payoff values and start in the same situation then the game is described as symmetric. Referring back to the payoff matrix for the bilingual game, Figure 5;2, the game seems to be a symmetric one. Most games, as Maynard-Smith points out (1982 p.22), are asymmetric. Examples are contests between male and female, old and young, small and large or the owner of a resource and a newcomer. If players are unaware of the asymmetry and the payoffs are unaffected by it, then the asymmetric cue will have no influence. However, if the asymmetry is perceived by both contestants beforehand then this can bias the outcome of the game in favour of the holder of the asymmetric cue even though the payoffs are the same for each strategy.

In the case where English and Punjabi are players an asymmetric cue could be provided by the language use in the community at large, outside the specific bilingual interchange under consideration. In an area where English is the predominant language, for example where there is a low percentage of Punjabi speakers in the population, we would expect the contest to be settled by the asymmetric cue favouring English. Higher proportions of English would increasingly feature in the dyadic conversations of bilinguals as they played the iterated Prisoner's Dilemma where 'speak the same language' means co-operate and 'change code' means defect. On the other hand in an area where Punjabi is overwhelmingly the background language, the asymmetric cue favouring higher proportions of Punjabi between interactants over time would be expected.
The experimental design hinges on the interplay of participants, setting and topic. The setting and topic were kept constant as far as conditions allowed. In practice this meant achieving a balance between an ethnographic and experimental approach, so children were observed in contrived yet seemingly natural conditions. The variation in participants is the key variable. I will make a distinction throughout between the subjects in the study and their contacts or interlocutors, even though all the children are in a sense 'experimental subjects'.

In Chapter 2 (sections 2;6 and 2;7) the idea of systematically varying degree of familiarity of participants was introduced. The degree of familiarity of a subject with his contacts is a variable ranging from stranger to very good friend or relative, but for convenience three categories are distinguished; Major contact, minor contact, and null contact. The divisions are, of course, the experimenter's categories, deriving from the necessity of sampling along a continuous scale.

The subjects selected for observation were bilingual children, aged about four years, with a confident ability to use both Punjabi and English as judged by the class teacher and a Punjabi/English bilingual member of the nursery school staff. Initially a total of 9 subjects was chosen from two nursery schools in Leeds (Brudenell and Dewsbury Rd. schools). One subject's performance had to be rejected since two of the three recordings were spoiled by crying. In a later stage of data collection, 4 more subjects were taken from one of the two nurseries (Brudenell) under slightly different conditions of selection (see section 6;1;4 for an explanation). In total, then, there were 12 subjects, 5 boys and 7 girls, selected by the experimenter. The study had two stages: the first stage established contacts for each subject by sociometric methods and in the second stage children were recorded in twos, i.e. dyads.
First stage - choice of participants using sociometric techniques

The subjects, numbered 1 - 12, were each observed for a half-hour period during free activity in the nursery classroom in order to chart a sociogram of their contacts. By this method, the subjects self-selected the children which the experimenter would pick out to partner them in the recording sessions.

FIGURE 6:1 Sociogram for S's contacts in a half-hour period

An example of a sociogram (with pseudonyms) is given in Figure 6:1 for a subject S. The number of lines connecting his name to another one represents the number of times he was observed to interact with that person in a half-hour period. The length of encounters and their content were noted by the experimenter, who became a familiar figure in the classroom during the observation period. Two or three days were spent in each nursery before recording began. Observation and recording then ran concurrently, with the experimenter spending one full day per week in each nursery for two months (for the 9 dyads) together with 10 half-days (for the extra 4 dyads).

From the sociogram (Figure 6:1), Jaswinder would be taken as the only possible Major contact because he has the largest number of ties with S and his interactions, described in hand-written notes made by the experimenter at the time of observation, included verbal interchange. Either Jagdeep or Malkeet could be selected as the minor
**TABLE 6:1**  
Ages at time of recording in years/months/days, for dyads

<table>
<thead>
<tr>
<th>dyad</th>
<th>subject</th>
<th>interlocutor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1K</td>
<td>4.4.16 (m)</td>
<td>adult (f)</td>
</tr>
<tr>
<td>2K</td>
<td>3.8.4 (m)</td>
<td>4.1.4 (f)</td>
</tr>
<tr>
<td>3K</td>
<td>4.1.17 (f)</td>
<td>4.2.12 (f)</td>
</tr>
<tr>
<td>4K</td>
<td>4.3.2 (m)</td>
<td>3.7.23 (m)</td>
</tr>
<tr>
<td>5K(a)</td>
<td>4.2.29 (f)</td>
<td>4.2.20 (f)</td>
</tr>
<tr>
<td>5K(b)</td>
<td>4.4.0 (f)</td>
<td>4.3.21 (f)</td>
</tr>
<tr>
<td>6K</td>
<td>3.10.27 (m)</td>
<td>4.1.22 (m)</td>
</tr>
<tr>
<td>7K</td>
<td>4.1.21 (f)</td>
<td>4.2.3 (m)</td>
</tr>
<tr>
<td>8K</td>
<td>4.0.21 (f)</td>
<td>3.6.20 (f)</td>
</tr>
<tr>
<td>9K</td>
<td>4.4.11 (f)</td>
<td>4.2.0 (f)</td>
</tr>
<tr>
<td>10K</td>
<td>3.8.27 (m)</td>
<td>4.5.27 (m)</td>
</tr>
<tr>
<td>11K</td>
<td>3.11.19 (f)</td>
<td>4.7.27 (m)</td>
</tr>
<tr>
<td>12K</td>
<td>4.1.17 (f)</td>
<td>4.1.17 (f)</td>
</tr>
<tr>
<td>1m(a)</td>
<td>4.4.16 (m)</td>
<td>4.0.6 (m)</td>
</tr>
<tr>
<td>1m(b)</td>
<td>4.4.21 (m)</td>
<td>4.0.11 (m)</td>
</tr>
<tr>
<td>2m</td>
<td>3.8.17 (m)</td>
<td>4.2.15 (m)</td>
</tr>
<tr>
<td>3m</td>
<td>4.0.16 (f)</td>
<td>4.1.12 (f)</td>
</tr>
<tr>
<td>4m</td>
<td>4.2.24 (m)</td>
<td>4.3.14 (m)</td>
</tr>
<tr>
<td>5m</td>
<td>4.3.12 (f)</td>
<td>4.1.24 (f)</td>
</tr>
<tr>
<td>6m</td>
<td>3.10.8 (m)</td>
<td>3.3.15 (f)</td>
</tr>
<tr>
<td>7m</td>
<td>4.1.18 (f)</td>
<td>3.4.12 (f)</td>
</tr>
<tr>
<td>8m</td>
<td>3.11.25 (f)</td>
<td>3.9.6 (f)</td>
</tr>
<tr>
<td>9m</td>
<td>4.4.11 (f)</td>
<td>3.7.16 (f)</td>
</tr>
<tr>
<td>10m</td>
<td>3.9.4 (m)</td>
<td>3.6.28 (m)</td>
</tr>
<tr>
<td>11m</td>
<td>4.1.0 (f)</td>
<td>4.5.1 (f)</td>
</tr>
<tr>
<td>12m</td>
<td>4.2.14 (f)</td>
<td>4.1.0 (f)</td>
</tr>
<tr>
<td>1n</td>
<td>4.4.29 (m)</td>
<td>4.4.18 (m)</td>
</tr>
<tr>
<td>2n</td>
<td>3.8.9 (m)</td>
<td>4.3.16 (m)</td>
</tr>
<tr>
<td>3n</td>
<td>4.0.29 (f)</td>
<td>3.6.22 (f)</td>
</tr>
<tr>
<td>4n</td>
<td>4.3.20 (m)</td>
<td>3.10.21 (m)</td>
</tr>
<tr>
<td>5n</td>
<td>4.4.0 (f)</td>
<td>3.7.10 (f)</td>
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<tr>
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<td>3.10.15 (m)</td>
<td>3.3.20 (m)</td>
</tr>
<tr>
<td>7n</td>
<td>4.0.28 (f)</td>
<td>3.4.17 (f)</td>
</tr>
<tr>
<td>8n</td>
<td>4.0.24 (f)</td>
<td>3.4.19 (f)</td>
</tr>
<tr>
<td>9n</td>
<td>4.4.25 (f)</td>
<td>4.0.9 (f)</td>
</tr>
<tr>
<td>10n</td>
<td>3.8.14 (m)</td>
<td>3.1.14 (m)</td>
</tr>
<tr>
<td>11n</td>
<td>4.0.16 (f)</td>
<td>4.3.29 (f)</td>
</tr>
<tr>
<td>12n</td>
<td>4.1.23 (f)</td>
<td>3.3.2 (m)</td>
</tr>
</tbody>
</table>

m=male, f=female. The subject of the 1M dyad is the same child as the subject of the 1m dyad and of the 1n dyad. The 2M subject is the same child as the subject of the 2m and the 2n dyads and so on, up to 12M, 12m and 12n. Children who appeared in two different roles by unavoidable duplication are shown with the two ages at recording dates connected by a line.
contact if they are known to use both languages. Peter is rejected as a possible minor contact since he is not bilingual in Punjabi and English. A null contact is a Punjabi/English bilingual child who was not seen interacting with the subject, so does not feature on the sociogram and who, when asked if he knows S or plays with him, replies in the negative. A null contact in the nursery class cannot be a complete stranger, rather a contact with whom speech exchange appears to be relatively rare if not absent.

To meet the requirements of the experimental design, it had to be possible to isolate for each subject, a Major and a minor contact who also spoke Punjabi and English. Observations on considerably more than the twelve subjects had to be undertaken and abandoned because for instance, their encounters were more typically with English monolinguals, or a Punjabi/English bilingual chose to interact most often with a Gujerati/English bilingual, or they interacted with others who had already taken part in the experiment as a contact of someone else. The last problem, that of trying not to duplicate the appearance of a contact was minimised but could not be completely avoided. In 4 out of 36 cases contacts were duplicated in a conversation with another subject.

Overall, each of the twelve subjects had three contacts; a Major, a minor and a null with whom he/she would be recorded, giving a total of 36 short conversations (actually 38 conversations were recorded since two retakes were necessary). A theoretical maximum of 48 children was involved in the dyads but in fact there were only 44 participants because of duplication (one participant was an adult - see 7:0:1 for an explanation). The children were taken from a pool totalling about 180. (N.B. These nursery classes have different populations a.m. and p.m.).

Since each subject is dealt with in relation to his contacts alone, it is possible to say that X is a Major contact for subject A compared with Y who interacted less and so is a minor contact. Another subject B who happens to be very gregarious may interact more with his own minor contacts than A did with his Major contact, but as each subject is considered in relation to his own set of contacts, this does not present a methodological problem. In practice it was
not difficult to pick out one minor contact and one major contact for each subject although it would have been difficult to categorize all the contacts on this basis, as some were, quite naturally, borderline major/minor.

A listing of the ages of subjects and those of their interlocutors is given in Table 6;1, together with girl/boy combinations in the dyads. The coding of dyads as 1M, 2M etc. is explained in section 6;1;3 under the heading 'Notation system'.

6;1;2 Second stage - recording dyads in conversation

Setting and topic

In all cases the speech data was recorded in a room near the nursery class, usually a staff-room with which the children were familiar. The tape recorder (Uher 4000 Report-L), fitted with an external microphone (Sennheiser) on a long lead, was placed out of sight. The microphone was visible and although some of the children knew its function, e.g. they might say 'one, two, three, four, five' into it, their conversation did not appear to be inhibited. I suspect that they associated a microphone with an amplified sound and so did not realize that they were being 'listened to'.

The pet/pets acting as topic stimulus, either a hamster, a rabbit, a guinea pig or a pair of birds were caged, covered with a cloth and put on a low table with the microphone nearby. Some small pieces of suitable food such as apple, carrot or millet and a drinking bottle where appropriate were provided. The different pets and the task of feeding provided a topic for the conversation, although of course the children did not limit their conversation to the activity of the pets. It would be impossible to achieve such an ideal without the aid of an adult who had been instructed to direct the conversation, which would have defeated the object of the design. Since each subject took part in the experiment three times with his different interlocutors, three animals were needed (more if contacts were duplicated in other parts of the experiment or if a second recording were necessary). Use of exactly the same conversational
topic was undesirable as it would have led to effects caused by lack of novelty of the topic.

Method

The experimenter brought the children into the room and settled them near the microphone. They had the choice of sitting on a chair (only two were provided) near the table or kneeling on the floor. After uncovering the animal and ensuring that the children were not frightened, the experimenter said that she had to go out for a few minutes and could they please talk to the animal and feed it until she got back.

A recording time of five to six uninterrupted minutes was aimed for with each dyad. It was always possible to check the situation by looking through a window and if the children, for instance, strayed from the microphone or misbehaved towards the animal the experimenter intervened. There were inevitably unpredictable events. The final recordings were edited for periods when a third person entered the room, this is marked in the transcription. Final timings were calculated from the sound, on the tape, of the door closing to the door opening.

6;1;3 Notation system

The situation where subject number 1 is in conversation with his/her Major contact is written as 1M (capital M). Number 1 with his minor contact is 1m and number 1 in a dyad with his null contact is 1n. The other subjects with their three different contacts are written; 2M 2m 2n, 3M 3m 3n, etc. up to 12M 12m 12n.

From chapter 7 onwards, the dyads 1M to 12M will be referred to as a set of M contacts. Similarly the dyads of minor contacts will be a set of m contacts and those for null contacts will be a set of n contacts. The use of the term 'set' is adopted to avoid confusion with the term 'group' which is reserved for groups-of-four in the second part of the data collection.
Random order of recordings with topic stimulus (Read down the columns)

<table>
<thead>
<tr>
<th>1m(a) guinea pig</th>
<th>1n guinea pig (2)</th>
<th>11M rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1M hamster</td>
<td>5m guinea pig (2)</td>
<td>10n guinea pig</td>
</tr>
<tr>
<td>2M hamster</td>
<td>3n guinea pig</td>
<td>12M hamster</td>
</tr>
<tr>
<td>3M hamster</td>
<td>2m guinea pig (2)</td>
<td>10M guinea pig</td>
</tr>
<tr>
<td>5M(a) hamster</td>
<td>6M hamster</td>
<td>12n guinea pig</td>
</tr>
<tr>
<td>6m rabbit</td>
<td>4n hamster</td>
<td>10m rabbit</td>
</tr>
<tr>
<td>8m rabbit</td>
<td>5n rabbit</td>
<td>9M rabbit</td>
</tr>
<tr>
<td>4m rabbit</td>
<td>3M rabbit</td>
<td>9m guinea pig</td>
</tr>
<tr>
<td>1m(b) rabbit</td>
<td>5M(b) hamster (2)</td>
<td>11n guinea pig</td>
</tr>
<tr>
<td>2n rabbit</td>
<td>8M guinea pig</td>
<td>9n birds</td>
</tr>
<tr>
<td>7n guinea pig</td>
<td>7m rabbit</td>
<td>12m birds</td>
</tr>
<tr>
<td>6n guinea pig</td>
<td>8n hamster (2)</td>
<td>11m birds</td>
</tr>
<tr>
<td>4M guinea pig</td>
<td>7M hamster (2)</td>
<td></td>
</tr>
</tbody>
</table>

N.B. (2) refers to a second animal, physically distinct from the first of its type.

The order of recording of dyads with their conversational stimulus was a random one, constrained by the availability of children or topic stimulus at the particular time of recording. The final order is shown in Table 6; 2. The recordings of subjects 1-8 were made between 26/1/83 and 1/3/83. The second set, for subjects 9-12 was made between 15/1/86 and 26/2/86. As far as possible the participation of one subject in two of his/her dyads on the same day was avoided. However, for the dyads; 1M and 1m(a), 5M(b) and 5n and 9M and 9m, recordings had to be made on the same days. In these cases the first recording was made early in the morning/afternoon session and the second was made as late as possible to maximise the interval between recordings.

6;1;4 A note on subjects 9-12

The results of the first sessions of data collection, for subjects 1-8, showed a bias towards English speech rather than Punjabi for dyads of Major contacts. This might have been expected as the setting was 'English' and the situation was introduced by an English speaker. In order to offset the bias, subjects 9 to 12, recorded 3 years later, were specially selected because they all had
Major contacts in the nursery who had been Major contacts for some time in the home and local community. Subject 9 and her Major contact both had mothers who were best friends. Subject 10 was a similar case. Subject 11 had a cousin. Subject 12 had a twin sister. It was hoped that by this selection, the chances of finding Major contacts speaking Punjabi in the school setting would be maximised. The minor and null contacts for subjects 9-12 were found by the earlier sociometric method. An unexpected difficulty arose in that children who had such 'strong' Major contacts, interacted infrequently with others so their minor contacts tended to be less obvious.

6;2 PART 2: BILINGUAL SPEECH IN GROUPS-OF-FOUR

Method

In order to take groups-of-four children from the nursery class population, schools with a high proportion of Punjabi/English bilinguals were needed. This second part of the study was done in three Southall nurseries (Glebe, Havelock and Wolffields) where the large majority of children were mother-tongue Punjabi speakers. Eight groups-of-four children took part, between 15/4/86 and 25/4/86. Four other groups-of-four (the first groups which were selected) had to be rejected as the recordings were unclear. The main problem was the lack of carpets/curtains in the recording area, which gave an echo effect on tape, but also, the experimenter had some initial problems with the positioning of the video microphone.

Pets were again used as a topic stimulus. A pair of zebra finches, which had been introduced at the end of the dyads' study had proved to be a good topic stimulus, because children find them attractive, and the task of feeding by taking individual seeds off a strand of millet was sufficiently absorbing to enable the recording sessions to be lengthened to about 8-10 minutes. (The birdsong on tape, however, was irritating during transcription and perhaps a quieter species could be found).

The selection of groups started by observing one child in a free activity session in order to find three other bilinguals who could
form, with him, a group of four loosely affiliated children. But constraints of time, changed the procedure and sometimes the nursery staff suggested possible fours, or at least two of a possible four, then the experimenter completed the procedure, checking by observation and questioning of the children to ensure that the friendships were sufficiently 'dilute' to maximise code-switching and mixing. The selection of familiarity levels for groups-of-four was not as rigorously established as it had been for the dyads, but the intention was not to compare groups-of-four with each other, as it had been for dyads. Table 6;3 gives the composition of the groups-of-four in terms of Major and minor contacts. The ages of the participants are noted in Table 6;4. The letters A to H refer to the total of eight different groups recorded in the three schools.

TABLE 6;3
Composition of groups-of-four

<table>
<thead>
<tr>
<th>groups</th>
<th>2 Major contacts with one minor contact for each</th>
</tr>
</thead>
<tbody>
<tr>
<td>B,C,D,E,F,H, G, A,</td>
<td>4 minor contacts</td>
</tr>
<tr>
<td></td>
<td>2 Major contacts with another 2 Major contacts, unfamiliar with the first pair.</td>
</tr>
</tbody>
</table>

TABLE 6;4
Ages at time of recording in years/months/days, for groups-of-four

<table>
<thead>
<tr>
<th>group</th>
<th>children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>4.11.19 (f)</td>
</tr>
<tr>
<td>B</td>
<td>4.0.24 (m)</td>
</tr>
<tr>
<td>C</td>
<td>4.1.12 (m)</td>
</tr>
<tr>
<td>D</td>
<td>4.6.11 (f)</td>
</tr>
<tr>
<td>E</td>
<td>4.5.20 (f)</td>
</tr>
<tr>
<td>F</td>
<td>3.10.11 (f)</td>
</tr>
<tr>
<td>G</td>
<td>4.4.10 (f)</td>
</tr>
<tr>
<td>H</td>
<td>4.4.29 (f)</td>
</tr>
</tbody>
</table>
The groups-of-four were tape recorded and videoed simultaneously. The video camera was set up on a stand and the experimenter pretended to take a photograph of the children before leaving the room. None of the participants seemed to be aware that the camera was continuously recording them. A video recording was essential with a group-of-four so that voices could be assigned to the different children when the tapes were transcribed. In addition, having two recordings of the interaction was useful because some utterances which were missed by the external microphone of the tape-recorder, were picked up by the internal video camera microphone.
CHAPTER 7
RESULTS
7.0 INTRODUCTION TO RESULTS

The recorded data, totalling 200 mins for the twelve subjects who formed dyads with their Major, minor and null contacts, was transcribed together with an additional total of 51 mins for the eight groups-of-four children. The transcription conventions have been outlined in section 10.1, together with the conversation-acts coding adopted from Dore (1978).

The dyadic data was subjected to more analysis than the groups-of-four data since the three conditions for dyads, Major, minor and null, were designed to test differences arising from the variation in one variable, i.e. the degree of familiarity of the contact with the subject. The main body of the results section is composed of comparisons between the linguistic behaviour of the three sets, Major, minor and null dyads. The data for the groups-of-four was collected, using different subjects, in a different locality, to test a hypothesis arising from the results of the dyadic situation. Although some comparisons are possible between the dyadic and groups-of-four data, such as relative proportions of Punjabi/English in the total lexical count and patterning of conversation acts, the mixed composition of groups-of-four in terms of Major and minor contacts prevented direct comparison of them with sets of either Major or minor dyads.

A number of analyses were applied, which fall into three main categories. The first category is based on a lexical count of types and tokens, both English and Punjabi (section 7.1.1 dyadic data, 7.1.2 data from groups-of-four). The amounts of time spent in pausing, and laughter & related noises were also totalled. Two different kinds of graphs were plotted to show the progression of conversations over time. The first of these, conversation profiles (7.1.3, Graphs 7.1 to 7.23 for dyads and groups-of-four), highlight the changing proportions of Punjabi and English in a conversation along its length. The second type, conversation mapping (7.1.4, Graphs 10.1 to 10.32 for dyads only), show individual contributions

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to the overall conversation, highlight code-mixing/switching within a turn, show relative length of turns and length of pauses and the distribution of laughter.

The second set of analyses, which developed from the application of mathematical game theory to code-switching, was concerned with co-operation and defection (section 7.2, dyads only). Conversational turns were classified as co-operation or defection. Initially, a code-switch was considered as a defection regardless of the content of the message. Then, the content and force of the message were examined as a possible source of conversational defection. Code and content defections are compared in bar graphs (Graphs 7;24 to 7;26).

The third category of analysis (section 7.3, dyads and groups-of-four data presented together) was based on a conversation-acts classification. Conversational turns which formed part of a sequence with other turns were bracketed together as linked turns whilst those which were unconnected with previous or following turns were labelled isolated turns.

Conversation-act (C-act) codings were totalled and averaged for Major, minor, null sets of dyads and groups-of-four. The results were plotted on bar graphs in order to examine differences in patterning of C-acts between the four sets (section 7.3, Graphs 7;27 to 7;30). Bar graphs for atypical dyads, those displaying minimally sequenced conversations and the dyad which included an adult, were also plotted (section 7.3, Graphs 7;31 to 7;35).

7.0.1 Exceptional data

In compiling the data, it emerged that recordings from the dyads which included subjects 8 and 12 were unusual in a number of ways. In the tables following Table 7.1 the data relating to subjects 8 and 12 is presented in italics and is not included in the calculation of means. All data from these subjects has been omitted from significance testing (t-tests) between sets. Additionally, the data has not been processed beyond the second category of analysis (for co-operation and defection), and it is not included in the appendix.
The reasons for omission are as follows: Subject 8 spoke a variety of Punjabi which her two interlocutors in 8M and 8m had difficulty in understanding (requests for clarification numbered 13 in the 8M conversation and 9 in that of 8m). Also, a higher than average proportion of utterances for these two dyads was unintelligible to the transcribers. Subject 12 was atypical in all three situations; 12M, 12m, and 12n. Firstly, the subject's Major contact was her twin sister, but the sister had been living with an aunt and had recently returned from a holiday in India, whilst the subject had stayed in Leeds. The subject used a large proportion of English in her conversation with her sister (see Table 7;2). By accident rather than design, the subject of 12M is also the interlocutor in 9M, a situation in which she was able to considerably reduce the amount of English in her conversation with a best friend. Secondly, there was difficulty in finding a minor contact for subject 12 by observation, since she preferred to associate only with her two Major contacts. A solution was to choose, as interlocutor, a girl who liked to talk to everybody and claimed to know subject 12. The subject, however, showed some reticence in the 12m conversation, contributing only 22% of the conversation. Thirdly, the null contact chosen was of the opposite sex which would not have mattered at minor or Major level where contacts were selected on the basis of their having been observed in conversation with the subject, but the occurrence of seven 'interruptions' (door opening) for 12n, in 306 secs. recording time, shows that the two children did not want to stay together.

Second sets of recordings were made, at a later date, for dyads 5M and 1m, since the first recordings were too short. In both cases the first and second recordings showed similar trends, so the figures for the 'double takes' were totalled in the results tables. The notation adopted is that, in the case of subject 5, 5M(a) refers to the first recording, 5M(b) refers to the second recording and 5M is the sum of 5M(a) and 5M(b), and similarly for subject 1, 1m(a) is the first recording, 1m(b) is the second and 1m is the total.

Subject 1 showed a strong preference for conversing with adults rather than his peers and a bilingual member of the nursery staff was
taken as his Major contact. The experimenter told the interlocutor that she was interested in recording the children's natural speech, in particular their mother tongue. After the recording, the interlocutor said that she normally spoke English to that particular child and although she had tried to introduce some Punjabi into the conversation, it seemed unnatural. The transcription for dyad 1M shows that the interlocutor's attempts to switch the conversation into Punjabi were ignored by the subject.

7.0.2 Format of Tables

The data from the dyads is listed throughout in three sets. The Major dyads, subjects 1-12, followed by the minor dyads, subjects 1-12, then the null dyads, subjects 1-12. Where subjects 8 and 12 have been italicized, the corresponding figures have not been included in the reported means.

Although an average of 5 minutes recording-time (r-time) was aimed for, actual r-times varied. Where raw data is referred to in the tables, the figures are for the actual r-time for each dyad. The mean r-time for the total M, m and n dyads was 333 seconds. A table displaying raw data is normally followed by one where data has been recalculated proportionally for an average recording time of 333 seconds. In the tables, these recalculated figures are reported rounded off to the nearest whole number, but for the purposes of calculation they were taken correct to the first decimal place.

The data from the eight groups-of-four (A to H) is similarly presented as either raw data or data recalculated proportionally for an average recording time of, in this case, 382 seconds.

Subscripts s and I refer to the subject and interlocutor respectively. E and P represent English and Punjabi. The combination of language and speaker is shown as, for example, Es.

7.1 Type and Token Counts

Words were assigned to two categories, either English or Punjabi, for the type and token count. English words which are commonly used
in Punjabi speech, such as book, school, friend were counted as English unless they had been subjected to Punjabi morphological processes, as for instance in the case of /rɔˈbɪtə/ (rabbit - nominative masculine singular), which was classified as Punjabi. Adopting this method, of considering each token in isolation from the phrase in which it occurs, means that Punjabi is slightly under-represented in the type and token count. A further consequence is that code-switching is not distinguished from code-mixing. The imbalance is offset in the conversation profiles (Graphs 7;1 to 7;23) and conversation mapping (Graphs 10;1 to 10;32) where words of English origin which are so frequent in Punjabi speech as to be considered by Punjabi speakers to be 'Punjabi' are counted as such.

The English contractions gonna and wanna are classified as types in their own right, but the more 'standard' contractions e.g. "he's", "I'll" are classified as consisting of two types: he and is/has; I and will. Phrasal verbs such as "fall off" are split into fall and off. Exclamations "oh", "ah", are not included in the count, but "eh?" and "um?" as a request for clarification are counted as one type. Estimated numbers of unintelligible Punjabi and English tokens are not included in the count, but they are included in the conversation profiles and mapping.

Data from dyads

Tables 7;1 to 7;3 report type and token counts for Punjabi and English in each dyadic conversation, for the subject and interlocutor of each dyad separately (Tables 7;1 and 7;2) and for both participants added together (Table 7;3). Then, percentages of Punjabi and English in each conversation, both types and tokens, are reported (Table 7;4). The total length of time spent in pausing and the number of seconds spent in laughter are given in Table 7;5, together with figures for laughter and noises denoting a playful attitude added together. The figures recalculated proportionally for an average recording time of 333 seconds are reported in the right-hand columns of the same table (Table 7;5).
### TABLE 7;1 Raw data for dyads

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<td>(secs.)</td>
<td></td>
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<th>r-time tokens</th>
<th>types</th>
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<tbody>
<tr>
<td></td>
<td>(secs.)</td>
<td></td>
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<th>dyad</th>
<th>r-time tokens</th>
<th>types</th>
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<tbody>
<tr>
<td></td>
<td>(secs.)</td>
<td></td>
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</tbody>
</table>

### mean

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<th>r-time tokens</th>
<th>types</th>
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<tr>
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<td>(secs.)</td>
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</tbody>
</table>

### overall mean = 333.4 secs
TABLE 7:2  **Type and token count recalculated proportionally for an average recording time of 333 secs.**

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<th>Tokens</th>
<th>Types</th>
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<td>E₂</td>
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<tr>
<td>1M</td>
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<td>251</td>
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<td>210</td>
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<td>231</td>
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<td>6M</td>
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<td>11M</td>
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<tr>
<td>12M</td>
<td>69</td>
<td>23</td>
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</table>

**means** 155.6 167 10.2 7.7 64.6 66.6 6.3 4.6

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<th>Tokens</th>
<th>Types</th>
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<td>10m</td>
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</tr>
<tr>
<td>11m</td>
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<td>111</td>
</tr>
<tr>
<td>12m</td>
<td>44</td>
<td>155</td>
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</tbody>
</table>

**means** 126.8 101.9 30.2 28.2 55.5 48 17.3 16.9

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<td>252</td>
<td>127</td>
</tr>
<tr>
<td>12n</td>
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<td>52</td>
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**means** 142.9 97.7 2.7 3.2 56.4 47.7 1.6 2.4

- 90 -
TABLE 7:3
Type and token count for English items and Punjabi items in each dyadic conversation, recalculated for an average recording time of 333 secs. Subject and interlocutor scores added together

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TABLE 7:5

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In order to establish whether the means of Punjabi/English language mix, and hence code-switching, varied significantly depending on the degree of familiarity of the subject and interlocutor, correlated sample t-tests were applied. Conversation profiles (Graphs 7:1 to 7:23) indicated that conversations tended to resolve themselves into greater proportions of one language compared with the other. To accommodate the fact that, for instance, the subject in 4m prefers to speak mainly Punjabi with 4m interlocutor, but prefers English with 4M interlocutor, whilst testing the notion that minor contacts appeared to switch more, the t-test was run between figures for the percentage of the language of highest incidence (lhi). Table 7:6 provides an example.

**TABLE 7:6**

**Matched pairs for two groups, Major contacts and minor contacts**

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</table>

**means** 96.9 84.9

Correlated sample t-tests were run between the three groups, Major, minor and null, for percentage tokens of the lhi, percentage types of the lhi, total numbers of Punjabi and English tokens, total time spent in pauses and total time spent on laughter and related noises denoting a playful attitude, in all cases for data proportioned to 333 secs. duration. The results are given in Table 7:7.
The results in Table 7;7 show that switching is significantly greater, for both types and tokens, in conversations between minor contacts, as compared to either null or Major contacts. When Major and null contacts are compared, there is no significant difference in the code-switching of the two groups. Major contact conversations yielded significantly more tokens altogether (E+P) than null contact conversations. And there were, to a highly significant extent, more pauses in conversations where the familiarity level was null rather than Major. None of the other differences between means reaches significance.

TABLE 7;7
Comparisons of means, using correlated sample t-tests

<table>
<thead>
<tr>
<th>groups</th>
<th>t</th>
<th>degrees of freedom</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>tokens % lhi (S and I)</td>
<td>M and m</td>
<td>2.25</td>
<td>9</td>
</tr>
<tr>
<td>tokens % lhi (S only)</td>
<td>M and m</td>
<td>2.47</td>
<td>9</td>
</tr>
<tr>
<td>tokens % lhi (S and I)</td>
<td>n and m</td>
<td>2.49</td>
<td>9</td>
</tr>
<tr>
<td>tokens % lhi (S only)</td>
<td>n and m</td>
<td>2.56</td>
<td>9</td>
</tr>
<tr>
<td>tokens % lhi (S and I)</td>
<td>M and n</td>
<td>0.13</td>
<td>9</td>
</tr>
<tr>
<td>tokens % lhi (S only)</td>
<td>n and M</td>
<td>0.18</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S and I)</td>
<td>M and m</td>
<td>2.45</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S only)</td>
<td>M and m</td>
<td>2.60</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S and I)</td>
<td>n and m</td>
<td>2.64</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S only)</td>
<td>n and m</td>
<td>2.63</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S and I)</td>
<td>M and n</td>
<td>0.13</td>
<td>9</td>
</tr>
<tr>
<td>types % lhi (S only)</td>
<td>n and M</td>
<td>0.25</td>
<td>9</td>
</tr>
<tr>
<td>pauses</td>
<td>m and M</td>
<td>1.96</td>
<td>9</td>
</tr>
<tr>
<td>pauses</td>
<td>n and m</td>
<td>0.62</td>
<td>9</td>
</tr>
<tr>
<td>pauses</td>
<td>n and M</td>
<td>3.29</td>
<td>9</td>
</tr>
<tr>
<td>laughs and noises</td>
<td>M and m</td>
<td>0.53</td>
<td>9</td>
</tr>
<tr>
<td>laughs and noises</td>
<td>n and m</td>
<td>0.39</td>
<td>9</td>
</tr>
<tr>
<td>laughs and noises</td>
<td>M and n</td>
<td>0.07</td>
<td>9</td>
</tr>
<tr>
<td>total E &amp; P tokens</td>
<td>M and m</td>
<td>1.58</td>
<td>9</td>
</tr>
<tr>
<td>total E &amp; P tokens</td>
<td>M and n</td>
<td>2.55</td>
<td>9</td>
</tr>
<tr>
<td>total E &amp; P tokens</td>
<td>m and n</td>
<td>1.86</td>
<td>9</td>
</tr>
</tbody>
</table>

(E = English, P = Punjabi, S = subject, I = interlocutor, n.s. = not significant, a.s. approaching significance, * the first of the pair has the higher mean score.)

An examination of Table 7;4 reveals two different subgroups in the group of 12 subjects, aside from subject 12, who is exceptional
in all circumstances. Subjects 6 and 10 exhibit no code-switching and subjects 5 and 11 only a negligible amount, whilst subjects 1, 2, 3, 4, 7, 8, 9, all display code-switching which generally follows a similar pattern, being more prevalent between minor contacts than either null or Major contacts. The presence of non-switchers is the factor which contributes most to the lowering of the t statistics for the group % type and % token counts, which are significant only at the 5% level or below. In order to examine the behaviour of the switchers, they were isolated and their data was subjected to further significance tests.

χ² test results

The dyads which included subjects 1, 2, 3, 4, 7, 8, all switched or mixed codes most at minor contact level, i.e. at an intermediate state of familiarity, compared with Major and null levels of familiarity. The dyads which included subject 9 showed mixing at minor level (83% lhi) but there was slightly more mixing at Major level (75% lhi), however, examination of the conversation profiles for 9m (Graph 7;11) and 9M (Graph 7;2) shows that the mixing was of a different character (section 7;1;3 outlines the conversation profile technique). In line with the previously observed pattern, mixing was absent at null level for 9n.

χ² tests were applied to the token-count data from Table 7;3 for each of these seven subjects in their three dyads. The χ² test matrix was designed to accommodate the idea, mentioned earlier, that a subject has a language of highest incidence in interaction with a given interlocutor and switches some of the time to the other code. An example of the matrix used is given in Table 7;8. The results of the χ² tests for tokens produced by the dyad as a whole are given in Table 7;9. The same test was applied to the token frequencies for the subjects alone (from Table 7;2) and the results are also given in Table 7;9. The token count for subject 8 in the 8M dyad differed from that for dyad 8M in that the subject alone showed more mixing at Major contact level than minor contact level, although the token count for the dyad displayed the general pattern of maximal switching.
between minor contacts. Subject 8 was, however, exceptional (see section 7; 0; 1), and whereas she spoke more Punjabi than English in the minor dyad, her interlocutor spoke more English than Punjabi in the same conversation, which accounts for the fact of maximal switching between minor contacts when the summed token count for both members of the dyad is considered.

The χ² results in Table 7; 9 showed that the observed pattern for switchers (with the exception of subject 7 whose figures did not meet the test criteria) could not have arisen by chance. Dyads 1, 2, 3, 4, and 8 mixed or switched codes more at minor contact level than at either null or Major contact levels, to a highly significant extent.

### TABLE 7; 8
**Observed token frequencies for dyads**

<table>
<thead>
<tr>
<th>dyad</th>
<th>lhi</th>
<th>lli</th>
</tr>
</thead>
<tbody>
<tr>
<td>7M</td>
<td>201</td>
<td>0</td>
</tr>
<tr>
<td>7m</td>
<td>120</td>
<td>24</td>
</tr>
<tr>
<td>7n</td>
<td>48</td>
<td>2</td>
</tr>
</tbody>
</table>

lhi = language of highest incidence
lli = language of lowest incidence

### TABLE 7; 9
**Results of χ² tests for tokens (1) dyad tokens (2) subject tokens**

<table>
<thead>
<tr>
<th>dyad tokens</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>χ²</td>
<td>p</td>
<td>d.o.f</td>
</tr>
<tr>
<td>1M, 1m, 1n</td>
<td>50.0</td>
<td>0.1%</td>
</tr>
<tr>
<td>2M, 2m, 2n</td>
<td>98.0</td>
<td>0.1%</td>
</tr>
<tr>
<td>3M, 3m, 3n</td>
<td>325.8</td>
<td>0.1%</td>
</tr>
<tr>
<td>4M, 4m, 4n</td>
<td>132.2</td>
<td>0.1%</td>
</tr>
<tr>
<td>7M, 7m, 7n</td>
<td>n.p.</td>
<td></td>
</tr>
<tr>
<td>8M, 8m, 8n</td>
<td>160.5</td>
<td>0.1%</td>
</tr>
<tr>
<td>9M, 9m, 9n</td>
<td>81.3*</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

(n.p. = not possible to apply the test since not all cells for expected frequency exceed 5

d.o.f. = degrees of freedom).

* more mixing at M than m level.

- 97 -
Data from groups-of-four

No significance tests have been applied to the raw data for groups. The data presented in the following tables should be read in combination with the conversation profiles (Graphs 7;16 to 7;23) since the figures as they stand give no indication of how the groups-of-four children resolve their dilemma of each having two languages and additionally being unfamiliar with some members of the group.

The raw data for type and token counts for each member of the eight groups-of-four is given in Tables 7;10 and 7;11, for the actual recording times. These figures were adjusted proportionally to an average r-time of 382 seconds and are reported in the following two Tables, 7;12 and 7;13. The Punjabi and English totals for both type and token counts and the percentages of Punjabi and English for each group conversation as a whole are given in 7;14. The amount of time spent in pauses and laughter and noises denoting a playful attitude is shown in Table 7;15. The left-hand columns give the raw data, then, in the two right hand columns the figures are adjusted proportionally to an average recording time of 382 seconds.

TABLE 7;10
Token count for each member of the groups-of-four

<table>
<thead>
<tr>
<th>group</th>
<th>r-time (secs)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>E</td>
<td>P</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>A</td>
<td>470</td>
<td>5</td>
<td>3</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>381</td>
<td>35</td>
<td>86</td>
<td>69</td>
<td>24</td>
</tr>
<tr>
<td>C</td>
<td>281</td>
<td>101</td>
<td>0</td>
<td>67</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>356</td>
<td>55</td>
<td>52</td>
<td>13</td>
<td>86</td>
</tr>
<tr>
<td>E</td>
<td>548</td>
<td>120</td>
<td>0</td>
<td>198</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>298</td>
<td>5</td>
<td>166</td>
<td>27</td>
<td>87</td>
</tr>
<tr>
<td>G</td>
<td>300</td>
<td>32</td>
<td>34</td>
<td>14</td>
<td>74</td>
</tr>
<tr>
<td>H</td>
<td>424</td>
<td>37</td>
<td>60</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>mean</td>
<td>382.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### TABLE 7;11

**Type count for member of the groups-of-four**

<table>
<thead>
<tr>
<th>group r-time (secs)</th>
<th>types per person</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
<td>P</td>
<td>E</td>
<td>P</td>
<td>E</td>
</tr>
<tr>
<td>A</td>
<td>470</td>
<td>5</td>
<td>3</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>381</td>
<td>28</td>
<td>50</td>
<td>32</td>
<td>17</td>
</tr>
<tr>
<td>C</td>
<td>281</td>
<td>5</td>
<td>0</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>356</td>
<td>38</td>
<td>28</td>
<td>10</td>
<td>39</td>
</tr>
<tr>
<td>E</td>
<td>548</td>
<td>63</td>
<td>0</td>
<td>74</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>298</td>
<td>5</td>
<td>77</td>
<td>18</td>
<td>49</td>
</tr>
<tr>
<td>G</td>
<td>300</td>
<td>23</td>
<td>25</td>
<td>10</td>
<td>48</td>
</tr>
<tr>
<td>H</td>
<td>424</td>
<td>29</td>
<td>36</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>mean</td>
<td>382.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 7;12

**Token counts recalculated proportionally for an average recording time of 382 seconds**

<table>
<thead>
<tr>
<th>tokens per person</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>group</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>2</td>
<td>25</td>
<td>0</td>
<td>79</td>
<td>7</td>
<td>68</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>35</td>
<td>86</td>
<td>69</td>
<td>24</td>
<td>19</td>
<td>65</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>C</td>
<td>137</td>
<td>0</td>
<td>91</td>
<td>8</td>
<td>95</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>59</td>
<td>56</td>
<td>14</td>
<td>92</td>
<td>24</td>
<td>122</td>
<td>39</td>
<td>77</td>
</tr>
<tr>
<td>E</td>
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<td>0</td>
<td>138</td>
<td>1</td>
<td>75</td>
<td>1</td>
<td>76</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>213</td>
<td>35</td>
<td>112</td>
<td>14</td>
<td>74</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>41</td>
<td>43</td>
<td>18</td>
<td>94</td>
<td>92</td>
<td>208</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>H</td>
<td>33</td>
<td>54</td>
<td>23</td>
<td>21</td>
<td>35</td>
<td>93</td>
<td>10</td>
<td>31</td>
</tr>
</tbody>
</table>
### TABLE 7;13

Type counts recalculated proportionally for an average recording time of 382 seconds

<table>
<thead>
<tr>
<th>Group</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
<th>E</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>2</td>
<td>15</td>
<td>0</td>
<td>48</td>
<td>7</td>
<td>37</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>28</td>
<td>50</td>
<td>32</td>
<td>17</td>
<td>16</td>
<td>35</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>41</td>
<td>0</td>
<td>54</td>
<td>7</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>41</td>
<td>30</td>
<td>11</td>
<td>42</td>
<td>14</td>
<td>54</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>E</td>
<td>44</td>
<td>0</td>
<td>52</td>
<td>1</td>
<td>36</td>
<td>1</td>
<td>38</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>99</td>
<td>23</td>
<td>63</td>
<td>13</td>
<td>46</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>41</td>
<td>0</td>
<td>54</td>
<td>7</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>H</td>
<td>44</td>
<td>0</td>
<td>52</td>
<td>1</td>
<td>36</td>
<td>1</td>
<td>38</td>
<td>2</td>
</tr>
</tbody>
</table>

### TABLE 7;14

(1) Totals of type and token counts for the four members of each group (for an average recording time of 382 secs).

(2) English and Punjabi as percentages of the conversations.

<table>
<thead>
<tr>
<th>Group</th>
<th>Tokens</th>
<th>Types</th>
<th>(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A</td>
<td>176</td>
<td>18</td>
<td>104</td>
</tr>
<tr>
<td>B</td>
<td>155</td>
<td>207</td>
<td>94</td>
</tr>
<tr>
<td>C</td>
<td>326</td>
<td>11</td>
<td>143</td>
</tr>
<tr>
<td>D</td>
<td>136</td>
<td>347</td>
<td>91</td>
</tr>
<tr>
<td>E</td>
<td>373</td>
<td>4</td>
<td>170</td>
</tr>
<tr>
<td>F</td>
<td>55</td>
<td>399</td>
<td>42</td>
</tr>
<tr>
<td>G</td>
<td>151</td>
<td>345</td>
<td>87</td>
</tr>
<tr>
<td>H</td>
<td>101</td>
<td>199</td>
<td>70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E</td>
</tr>
<tr>
<td>A</td>
<td>184.1</td>
</tr>
<tr>
<td>B</td>
<td>54.2</td>
</tr>
</tbody>
</table>
### Table 7.15
Pauses and laughs & noises for each group conversation. (1) Raw data. (2) Recalculated proportionally for an average recording time of 382 seconds

<table>
<thead>
<tr>
<th>Group</th>
<th>r-time</th>
<th>Pauses</th>
<th>Laughs &amp; Noises</th>
<th>Pauses</th>
<th>Laughs &amp; Noises</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>470</td>
<td>293.5</td>
<td>23</td>
<td>239</td>
<td>19</td>
</tr>
<tr>
<td>B</td>
<td>381</td>
<td>121</td>
<td>9</td>
<td>121</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>281</td>
<td>125</td>
<td>20.5</td>
<td>170</td>
<td>28</td>
</tr>
<tr>
<td>D</td>
<td>356</td>
<td>75.5</td>
<td>23.5</td>
<td>81</td>
<td>25</td>
</tr>
<tr>
<td>E</td>
<td>548</td>
<td>247</td>
<td>23.5</td>
<td>172</td>
<td>16</td>
</tr>
<tr>
<td>F</td>
<td>298</td>
<td>116</td>
<td>5</td>
<td>149</td>
<td>6</td>
</tr>
<tr>
<td>G</td>
<td>300</td>
<td>44.5</td>
<td>11.5</td>
<td>57</td>
<td>15</td>
</tr>
<tr>
<td>H</td>
<td>424</td>
<td>184</td>
<td>7.5</td>
<td>166</td>
<td>7</td>
</tr>
<tr>
<td>Mean</td>
<td>382.3</td>
<td></td>
<td></td>
<td>144</td>
<td>16</td>
</tr>
</tbody>
</table>

(all measurements in seconds)

### Table 7.16
Table of means for sets of dyads and groups-of-four recalculated to an average of 333 seconds

<table>
<thead>
<tr>
<th></th>
<th>Total Tokens (E+P)</th>
<th>Total Types (E+P)</th>
<th>Pauses</th>
<th>Laughs &amp; Noises</th>
</tr>
</thead>
<tbody>
<tr>
<td>m dyads</td>
<td>341</td>
<td>142</td>
<td>133</td>
<td>28</td>
</tr>
<tr>
<td>m dyads</td>
<td>287</td>
<td>138</td>
<td>159</td>
<td>22</td>
</tr>
<tr>
<td>n dyads</td>
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<td>108</td>
<td>169</td>
<td>27</td>
</tr>
<tr>
<td>Groups</td>
<td>327</td>
<td>181</td>
<td>126</td>
<td>14</td>
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</table>

In Table 7.16, for the purposes of a general comparison, the means are presented for the sets of dyads and groups-of-four readjusted to the average recording time for dyads (333 seconds). Since the groups-of-four consisted of a mixed composition of Major and minor contacts, direct comparison with sets of dyads is not possible, however, some interpretation can be made; the figures show that the quantity of talk (total E+P tokens = 327) is not reduced by the complication of having four rather than two possible speakers (the corresponding figures for Major dyads and minor dyads are 341 and 287 tokens).
respectively); pausing and laughs & noises are slightly reduced in groups-of-four compared with dyads.

7;1;3 Conversation profiles

Bilingual conversations were plotted on graphs to give conversation profiles, which showed relative proportions of the two languages as the conversation progressed. The method of plotting a conversation profile was devised as a result of a series of attempts to adapt traditional ways of representing information in graphic form. The starting point is zero on the x and y axes. Each word in the unfolding conversation takes the graph one unit to the right. Each token of Punjabi is represented as one unit upwards and each token of English as one unit downwards. Moving along a stretch of dialogue, for each Punjabi token a point is marked one square diagonally up, to the right, and for each English token a point is marked one square diagonally down, to the right. The line joining these points is the conversation profile. A line falling on the diagonal leading to the top right would be a conversation consisting of 100% Punjabi tokens, a line falling on the diagonal leading to the bottom right would be 100% English. The point where a conversation profile crosses the x axis shows a conversation which is 50% Punjabi and 50% English up to that point.

There were some differences between the assignment of lexical items for the conversation profiles and that for the type and token count. English lexical items which are acceptable in Punjabi speech, as judged by native speakers, such as friend, hello, school, were counted as Punjabi when they appeared in a stretch of Punjabi but as English when they appeared in a stretch of English. Estimates of unintelligible tokens were included in the profiles. Tokens of doubtful status and eh? um? (requests for clarification) were marked on the horizontal. Exclamations such as oh! were not included. An example of a short interchange plotted as a conversation profile is shown in Figure 7;1.
A short line across the profile marks a point where the conversation was interrupted. Conversation profiles for both members of a dyad were plotted together, and then profiles for individual members of the dyad were plotted to compare their relative contributions to the joint profile. As in the case of type and token counts, there is again no distinction between code-switching and code-mixing in conversation profiles, since profiles are strings of isolated tokens. Joint and individual profiles for code-mixed Major dyads; 8M, 9M, 12M are shown in Graphs 7;1 to 7;3. The longest profile on each page is for the joint conversation, the shorter profiles being for the individual participants, labelled S (subject) or I (interlocutor). Profiles for minor dyads; 1m(a), 1m(b), 2m, 3m, 4m, 7m, 8m, 9m, are shown in Graphs 7;4 to 7;11. Code-mixed null dyads, which with the exception of 12n, show only small defections into the other code, are plotted in joint profiles on Graphs 7;12 to 7;16. The contributions of either S or I to the defection is marked on the single joint profile. The 12n dyad mentioned earlier as exceptional data, is shown
in the three-part format (1 joint and 2 individual profiles) in Graph 7;17.

Group profiles are drawn to half the scale of the dyad profiles, where one square represents two tokens. These are in five-part format. A joint group profile is presented first, with contributions by each of the four group participants on the following page. These are shown in Graphs 7;18 to 7;23 for groups A, B, D, F, G and H.

The conversation profiles show the overall shape of the conversation as it progresses, and the individual profiles give an impression of the degree to which the individual contributions mirror or adapt to each other. However, since conversational turns are of different lengths, and, overall, one child in a dyad may speak more than the other, one individual profile cannot be compared at a given point with the paired individual profile at the same point. This drawback is more pronounced for groups-of-four where there is a silent child, e.g. Graph 7;22 (b,c,d, and e) for group G.

7;1;4 Conversation mapping

A different type of conversation plotting was needed to compare individual contributions to the overall bilingual mix. Conversation mapping was devised to examine turn exchanges and their relationship to the bilingual mix.

In this plot two x axes run one above the other. The subject's tokens are plotted on the top axis, the interlocutor's on the bottom axis. For each participant each Punjabi token is plotted one unit upwards and each English token one unit downwards. One token advances the graph by one unit on the horizontal; so whilst speech from S is plotted, the axis for I remains blank and vice versa. Pauses are incorporated into the graph, one unit is missed for every one second pause, and the next token is marked on the following square. Pauses of less than a second are ignored. It must be stressed that two scales are in operation here. For stretches of speech, one unit represents one token but for silence or laughter, one unit represents one second, so comparative lengths of speech and silence/laughter are not equivalent. The system breaks down for speech in overlap when
tokens from the two parties are not of the same number and for speech/laughter in overlap. Overlaps occurred infrequently and are marked on the graphs. For the conversation mapping, laughter, noises and exclamations such as oh! ah! are marked in a central position between the two axes. Finally tokens and items marked between the two axes were joined by a line. So that patterns could be more clearly seen, stretches of Punjabi and English were highlighted in different coloured ink, on the working copies. In the case of conversation mapping, code-switching at turn boundaries is clearly distinguished from mid-turn switching/mixing. The mapping technique is potentially useful for examining intersentential switching and intrasentential mixing.

As in the case of the conversation profiles, English words which are acceptable in a stretch of Punjabi speech were counted as Punjabi. Additionally, tokens of doubtful status were marked on the axis itself and tokens for which the transcribers were uncertain of the identity of the speaker were marked between the axes. Figure 7;2 shows the short interchange which was printed in Figure 7;1 plotted as conversation mapping. The conversation mapping for dyads is shown in Graphs 10;1 to 10;32. Groups-of-four have not been mapped, but the task is theoretically possible using four parallel x axes.

FIGURE 7;2
The conversation from Figure 7;1 plotted as conversation mapping
Using the conversation mapping graphs, turn exchanges were classified as moves which either entailed co-operation (C) or defection (D). A turn was considered as all the utterances by one child until the other child took the floor. The first conversational turn was classified as C if it was in one code or D if it was mixed. Subsequent turns were marked C or D depending on their internal consistency and their relation to the previous turn. All mixed turns were D. The second turn (and the same applied to all subsequent turns) was marked C if it was in the same code as the previous turn, D if it was in the other code and D if the second turn was itself mixed. A mixed turn where the language of the latter part was taken up by the next speaker was considered as D followed by C. Figure 7;3 summarizes the decision-making process adopted.

### Figure 7;3
Classification of conversational turns as co-operation (C) or defection (D)

<table>
<thead>
<tr>
<th>1st turn</th>
<th>2nd turn (and subsequent turns)</th>
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<tr>
<td>E (C)</td>
<td>E (C)</td>
</tr>
<tr>
<td>E (C)</td>
<td>P (D)</td>
</tr>
<tr>
<td>P (C)</td>
<td>P (C)</td>
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<tr>
<td>P (C)</td>
<td>E (D)</td>
</tr>
<tr>
<td>E (C)</td>
<td>E+P (D)</td>
</tr>
<tr>
<td>E (C)</td>
<td>P+E (D)</td>
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<tr>
<td>E+P (D)</td>
<td>P (C)</td>
</tr>
<tr>
<td>E+P (D)</td>
<td>E (D)</td>
</tr>
<tr>
<td>P+E (D)</td>
<td>E (C)</td>
</tr>
<tr>
<td>P+E (D)</td>
<td>P (D)</td>
</tr>
</tbody>
</table>

A few special considerations were applied. An individual token from the L2 embedded in a stretch of L1 with L1 turns before and after it was not counted as defection (L1 represents one of the languages, either Punjabi or English). Vocatives were not counted as a switch (e.g. 'rabbit', 'Ba'-brother). Exclamations were considered
code-less and were not included as C or D turns. Neutral items, such as 'hello' or 'eh', were counted as C but when followed by a switch the next turn was D. When an L1 to L2 switch was followed by a repetition of the same switched utterance by the other speaker, the second of the two utterances was not considered as defection.

Turns broken up by long pauses within a turn, such that the first and second parts on the basis of content seemed, to the experimenter, to be unrelated were nevertheless counted as one turn for the purposes of marking code-defection. Similarly, long pauses between turns where the following turn seemed to be unconnected with the previous one posed a classification problem. At first, a pause of ten seconds was chosen as the cut-off point where the following turn could be considered to be unconnected with the previous one, and such a turn was not counted as either C or D. However there was no strong justification for choosing this figure and the classification led to problems in the case of null dyads with only a few utterances separated by long pauses, causing them to appear relatively turn-less. So, in the final analysis, the length of between-turn pauses was ignored.

Table 7;17 shows the number of C and D turns for each dyadic conversation. The number of consecutive code-defections are also listed for the actual r-times. The following table, 7;18 gives the C and D turns adjusted proportionally to an average recording time of 333 seconds and the percentages of C and D for each conversation.

7;2;2 Co-operation and content defection

Another type of defection seemed to be operating, aside from code-defection. This was shown in the content of the message and/or the voice quality. Listening to the tapes with the transcripts, the experimenter marked with a 'd' those turns in which one speaker said something which distanced him/her from the other party. The marking of the 'd' defections was more subjective than the classification of D (code-defections).

The reliability of the coding for 'd' defections was checked, for half of the dyadic conversations, by an independent judge who was
given written instructions. These are reprinted in Figure 7:4. The first and second judges reached 82% agreement on the number of defections in each of the fifteen conversations and in 13 out of 15 conversations the areas of defection coincided. The two sets of results are shown in Table 7:19. Turn-for-turn, however, there was some discrepancy between the two sets of 'd' markings. The judges discussed their decision procedures and two points emerged which could account for some discrepancies.

**FIGURE 7:4 Instructions to second judge of 'd' defections**

Conversational defection

Adjectives such as friendly, dominating, quarrelsome could be used to describe voice quality or content of a message. If an utterance can be described by the kind of adjectives falling into the quadrant between dominating and hostile in the diagram below then the utterance can be labelled as a conversational defection. The speaker is disaffiliating from the listener.

Listen to the conversations on tape and mark a conversational turn with a 'd' if you consider that the content of the message and/or the voice quality seem to distance the speaker from the hearer. Each conversation has two participants, these are young children, aged about four, who may or may not know each other. They are seated near a live pet in a cage or box, and they have been given some food to give to the animal.

What is a 'd'?

1 Aggressive tones directed to the animal would not be 'd'.
2 Each conversation will have its own norms.
3 A role-play where one child acted out dominant behaviour towards the other might be 'd'.
4 A child might request the other to do something in an abrupt manner but this is not necessarily 'd'.
5 Bringing in a third party as a threat may well be 'd', e.g. "I'll tell X of you." "That X will bite you."
6 Some conversations may feature little or no 'd'. The speakers will seem to be co-operating in their conversation even though the turns may not be linked together into a recognizable sequence.

The first point was concerned with co-operation or dominance as a conceptual framework for decision-making. The second judge believed that children tried to establish a dominance relationship, so if the nature of their conversation indicated that they were already friends, then a show of dominance by one party was merely an expression of the norm. The first judge did not believe that establishment of dominance was a 'natural state' and so regarded a first dominant move as a defection. However, it was agreed that the start of a series of defections was not always clear-cut and there were cases of individual children who seemed more dominant than their peers, e.g. the subject in 5M, 5m and 5n.

The second point of discrepancy was over topic change. The second judge marked some 'assertive changes of topic' as defections. Although the first judge agreed that this was a type of conversational defection, she felt that it could not be considered as such for the data in question, since some null dyads failed to link-in their utterances with their partners and so were effectively changing the topic on every turn.

In the Appendix (section 10;2;1) the experimenter's judgment of content defection is marked in the transcript, with a 'd' immediately before the turn in which the defection/defections were judged to occur. These 'd' markings should be viewed as indicators of a stretch of conversation where defection is taking place. Any attempt to further standardize the procedure of 'd' marking and so reduce subjectivity would have to be the subject of a further study.
<table>
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<th>D</th>
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<td></td>
<td>mean</td>
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| 1m(a)| 195         | 25 | 2  | 2  |
| 1m(b)| 241         | 36 | 10 | 2  | 2  | 0  | 1  |
| 2m   | 236         | 17 | 12 | 5  | 2  | 1  |
| 3m   | 247         | 31 | 16 | 4  | 3  | 2  |
| 4m   | 445         | 45 | 12 | 8  | 2  |
| 5m   | 274         | 52 | 0  |    |
| 6m   | 290         | 48 | 0  |    |
| 7m   | 333         | 28 | 11 | 4  | 2  | 1  |
| 8m   | 357         | 26 | 19 | 2  | 2  | 1  | 0  | 2  |
| 9m   | 274         | 45 | 5  | 1  | 2  |
| 10m  | 396         | 72 | 0  |    |
| 11m  | 346         | 43 | 0  |    |
| 12m  | 320         | 20 | 0  |    |
|      | mean        | 329.5 |

| 1n   | 302         | 12 | 4  | 2  | 1  |
| 2n   | 215         | 19 | 4  | 2  | 1  |
| 3n   | 324         | 25 | 0  |    |
| 4n   | 480         | 88 | 2  | 2  |
| 5n   | 299         | 61 | 0  |    |
| 6n   | 247         | 31 | 2  | 0  | 1  |
| 7n   | 345         | 22 | 2  |    |
| 8n   | 295         | 41 | 0  |    |
| 9n   | 311         | 57 | 0  |    |
| 10n  | 354         | 37 | 0  |    |
| 11n  | 314         | 50 | 0  |    |
| 12n  | 306         | 26 | 17 | 9  | 2  | 0  | 1  |
|      | mean        | 316 |

overall mean = 333.4 secs
### TABLE 7:18

*Table shows bilateral moves classified as co-operative (C) or defective (D) re-calculated proportionally for an average recording time of 333 sec.*

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TABLE 7;19

Reliability check on d-defections.

Number of d-defections

<table>
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<th>1st judge</th>
<th>2nd judge</th>
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<tr>
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* = discrepancy over areas of d defection

Table 7;20 gives the raw data for turns labelled C, D, and d, together with consecutive numbers of d defections. The figures adjusted to an average r-time of 333 seconds are reported in Table 7;21, where the relative distributions of the two types of defections (D and d in columns 3 and 4) can be compared. Percentages of C and D+d are given for each conversation.

It seemed likely that turns in overlap, shown in Table 7;20, may be another type of defection, but these are infrequent and no pattern emerged.

Tests of significance, correlated sample t-tests, were applied to the %D defections (Table 7;18) and %D+d defections (Table 7;21) for the three sets M, m, and n dyads. The results are given in Table 7;22. There is a greater incidence of %D (code-defection) for minor contacts than either Major or null contacts but the figures, whilst approaching significance at the 5% level, fail to reach significance. The figures for %(D+d), code and content defection, show that defection is greater, to a highly significant extent, between minor contacts than between either Major contacts or null contacts.
Code-defection (D) and content-defection (d) seemed to be in roughly complementary distribution; content-defection being a feature of monolingual stretches of conversation. The distributions of (D) and (d) for each dyadic conversation are plotted as bar graphs in Graphs 7.24 to 7.26.
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</table>

**d coincides with D = 4**

**OL coincides with D or d = 2**

**d = defections classified by content of message and voice quality.**

**D = code-defections.**

**C = co-operative turns (less than those in Table 7.17 by d except when D=d)**

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### TABLE 7.21
Bilingual moves classified as co-operate or defect (D+d) recalculated proportionally for an average recording time of 333 secs.

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<th>dyad</th>
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<th>defect</th>
<th>%C</th>
<th>%D+d</th>
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<td>(D+d)</td>
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<td>5.6</td>
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|      | D  | d   | (D+d) |      |      |
| 1m   | 36.7| 9.2 | 9.9  | 19.1 | 65.8 | 34.2|
| 2m   | 22.6| 16.9| 2.8  | 19.7 | 53.4 | 46.6|
| 3m   | 41.8| 21.6| 1.3  | 22.9 | 64.6 | 35.4|
| 4m   | 33.7| 9.0 | 0    | 9.0  | 78.9 | 21.1|
| 5m   | 55.9| 0   | 7.3  | 7.3  | 88.4 | 11.6|
| 6m   | 47.1| 0   | 8.0  | 8.0  | 85.5 | 14.5|
| 7m   | 20  | 11  | 7.0  | 18.0 | 52.6 | 47.4|
| 8m   | 24.3| 17.7| 0    | 17.7 | 57.9 | 42.1|
| 9m   | 37.7| 6.1 | 17.0 | 23.1 | 62   | 38  |
| 10m  | 48.8| 0   | 11.8 | 11.8 | 80.5 | 19.5|
| 11m  | 33.7| 0   | 7.7  | 7.7  | 81.4 | 18.6|
| 12m  | 17.7| 0   | 3.1  | 3.1  | 85.1 | 14.9|
|      |      |      |      |      |      |      |
| means| 37.8| 7.4 | 7.3  | 14.7 | 71.3 | 28.7|

|      | D  | d   | (D+d) |      |      |
| 1n   | 13.2| 4.4 | 0    | 4.4  | 75   | 25  |
| 2n   | 27.9| 6.2 | 1.5  | 7.7  | 78.4 | 21.6|
| 3n   | 25.7| 0   | 0    | 0    | 100  | 0   |
| 4n   | 45.8| 1.4 | 15.3 | 16.7 | 73.3 | 26.7|
| 5n   | 67.9| 0   | 0    | 0    | 100  | 0   |
| 6n   | 41.8| 2.7 | 0    | 2.7  | 93.9 | 6.1 |
| 7n   | 21.2| 1.9 | 0    | 1.9  | 100  | 0   |
| 8n   | 48.3| 0   | 0    | 0    | 100  | 0   |
| 9n   | 58.9| 0   | 2.1  | 2.1  | 96.6 | 3.4 |
| 10n  | 32.9| 0   | 1.9  | 1.9  | 94.5 | 5.5 |
| 11n  | 46.7| 0   | 6.4  | 6.4  | 87.9 | 12.1|
| 12n  | 25.0| 18.5| 4.4  | 22.9 | 52.2 | 47.8|
|      |      |      |      |      |      |      |
| means| 38.2| 1.7 | 2.7  | 4.4  | 90   | 10  |
Comparison of means using correlated sample t-tests

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<th>t</th>
<th>d.o.f.</th>
<th>p</th>
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<td>approaching sig.</td>
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<td>%D m and n</td>
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7.3 CONVERSATION ACTS ANALYSIS

7.3.1 Coding

The motivation for the application of the conversation-acts analysis was that, during transcription, it seemed that conversations between Major contacts were qualitatively better. Utterances were coded in the transcription using the system developed by Dore et al. (1978) and reprinted in the Appendix (section 10.1). The 36 different types of conversation acts (C-acts) were totalled for each dyadic interaction. Subjects 8 and 12 have been omitted from the analysis. The results are shown in Table 7:23 for the Major dyads. Table 7:24 lists the figures for the minor dyads and Table 7:25 those for the null dyads. In the following three Tables, 7:26 to 7:28, the figures are given adjusted proportionally to an average t-time of 333 seconds and means of C-acts for the set of Major dyads, the set of minor dyads and the set of null dyads have been calculated. In order to compare the means, they were plotted on three bar graphs, Graphs 7:27 to 7:29, which were similar in shape indicating that the three conditions, Major, minor, and null, yielded comparable conversations in terms of the patterning of C-acts. Any differences found elsewhere between sets of M, m and n contacts can, thus, be seen as being acted out on the same stage.

The data from the groups-of-four was submitted to the same analysis of C-acts as the dyads. The results are shown in Table 7:29, for the raw data and Table 7:30 for figures adjusted to a recording time of 333 secs. This figure, which was actually the average.
recording time for dyads, was not the average recording time of the
set of group-of-four (382 seconds). The adjustment to 333 seconds was
chosen so that the means for C-acts for groups-of-four could be
compared in the form of a bar graph (in Graph 7;30) with those for
means of C-acts in the sets of Major dyads and minor dyads, which had
been plotted in Graphs 7;27 to 7;29.

Four of the conversations of null dyads (1n, 2n, 7n and 9n),
which were distinguished from the others in the next analysis (7;3;2)
by their low levels of sequenced turns, showed patternings of C-acts
which differed from the mean for the set of null dyads and so, for
purposes of comparison, their C-act patterns were plotted separately
in Graphs 7;31 to 7;34. Dyad 1M, which was exceptional in that it
included an adult and was the most well-sequenced conversation (see
7;3;2), was also plotted separately for C-act patterning in Graph
7;35.

7;3;2 Linking

Sequences were categorized using the guidelines suggested by Dore
(1978 p. 403).

A conversational sequence is a series of speaking turns which
share a topic and a reciprocal illocutionary domain; the
utterances in a sequence are related not only by content, but
also in terms of illocutionary phenomena, such as expectation
and fulfillment in the case of question-answer pairs. A speaker
who initiates a sequence 'gets the floor', in that subsequent
utterances orient to the initial one until the sequence
changes. Any Requestive, Assertive, or Performative act which
extends the topic of conversation counts as a bid for a new
sequence, unless it occurs in a speaking turn begun by a
Responsive. In the latter case, the Assertive or Performative
will be taken as a support for the Responsive if it merely
extends the topic, but if it totally changes the topic it
begins a new sequence. Questions with any new information, in
any speaking turn, initiate a new sequence. Thus the sequence-
changing mechanism is determined by the type of C-act, the turn
it is in, and the degree to which it varies the topic.

Using this prescription, utterances in the transcription were
bracketed into sequences. Turns were then labelled as linked or
isolated. A linked turn (L) was defined as one for which the whole or
part of the turn forms a sequence with the whole or part of the
previous or subsequent turn. An isolated turn (I) is one for which no
component utterance forms part of a sequence with the previous or
subsequent turn. In this case the turn may be directed to an audience
and yet not be linked-in to a sequence.

Some additional considerations in labelling turns were included.
Attention getters (ODAG) or exclamations (EXCL) following each other
were not counted as a sequence. Requests for clarification such as
'eh?' (ODCQ) were counted as linked turns only if the other party
subsequently clarified the earlier remark, which in fact generally
occurred. Repetitions (EXRP) which did not serve the function of
acknowledgement were not counted as L turns.
## TABLE 7; 23

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**totals**

|          | 125.2 | 115  | 109.3 | 138.8 | 132.8 | 135.8 | 68.6 | 108.6 | 117.1 | 127.2 | 117.8 |

-122-
### Table 7:27

**Conversation acts recalculated proportionally to an average recording time of 333 secs., for minor dyads**

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**Totals**: 99.2 87.1 110.4 81.1 147.8 101.6 70 105.5 141 82 102.6
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TABLE 7:29
Conversation acts for groups-of-four, raw data

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**t-test results.**

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<td>9</td>
<td>1%</td>
</tr>
</tbody>
</table>

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- 127 -
The results of the sequencing analysis are shown in Table 7;31 where figures for L and I are given for the actual recording times and then percentages of linked and isolated turns have been calculated. The longest sequence, by number of component turns (LS), in each dyadic conversation is recorded. Significance tests were run (t-tests) between the %L turns for Major/minor/null sets and the results are shown in the same table.

Major contacts can be seen to link-in their conversations more than minor or null contacts to a highly significant extent. Minor contacts and null contacts do not significantly differ in their linking behaviour but a closer look at the figures in Table 7;31 reveals that cases of very low linking occur only at null contact level; in the cases of 1n, 2n, 7n and 9n.

Numbers of linked and isolated turns and their percentages for the conversations of the eight groups-of-four are reported in Table 7;32, together with the longest sequence in each group conversation.

<table>
<thead>
<tr>
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The groups-of-four conversations were further examined to find whether the linking of turns into sequences involved all four possible speakers or whether, as seemed to be the case, most sequences were between two of the four. Table 7;33 records the numbers of sequences which incorporated 2, 3 and 4 speakers. The large majority of sequences, 85.2%, were composed of two-speaker turns, whilst 14.1% of sequences involved three speakers and only
0.7% (one sequence of group D) included utterances from all four group members.

**TABLE 7:33**  
**Numbers of speakers participating in conversational sequences in groups-of-four**

<table>
<thead>
<tr>
<th>groups</th>
<th>number of speakers per sequence</th>
</tr>
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<tr>
<td>%</td>
<td>85.2</td>
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GRAPH 7.2
dyad 9M
GRAPH 7.5

dyad 1m(b)
GRAPH 7.6

dyad 2m
GRAPH 7.8

dyad 4 m
GRAPHS 7.18(b-e)

Group A

1, 2 are M contacts
3, 4 are M contacts
GRAPHS 7.19 (b-e)

Group B

1,3 are M contacts

2,4 are m contacts of 1,3 resp.
GRAPH 7.20(a)
group D
GRAPH 7.21(a)
group F
GRAPHS 7.23(b-e)

Group H

3,4 are M contacts

1,2 are m contacts of 3,4 resp.
Distribution of D and d defections for sets of m dyads

Numbers of D and d defections in 333 sets, average e-tive
Graph 7:27
Patterning of C-acts, means for the set of Major dyads 1-7 and 9-11
Graph 7:28
Patterning of C-acts, means for the set of Minor dyads 1-7 and 9-11
Graph 7:29
Patterning of C-acts, means for the set of null dyads 1-7 and 9-11
Graph 7:30
Patterning of C-acts, means for the set of groups of four
Graph 7:31  Patterning of C-acts, dyad 1n: 0% linked
Graph 7:32  Patterning of C-acts, dyad 7n: 4% linked
Graph 7:33  Patterning of C-acts, dyad 2n: 13% linked
Graph 7:34  Patterning of C-acts, dyad 9n, 19% linked
Graph 7:35  Patterning of C-acts, dyad 1M, 70% linked
CHAPTER 8
DISCUSSION

The largest part of the present chapter (sections 8;1 and 8;2) interprets the findings, reported in Chapter 7, in the framework of game theory which was proposed in Chapter 5. In the first analysis, with particular reference to the conversation profiles (Graphs 7;1 to 7;23), languages are considered as players in the game. The dyadic data is discussed first, with differences between sets of Majors, minors and nulls, followed by the groups-of-four data. Then the overall pattern is summarized in section 8;1;6. The second analysis considers people as players and is based on the conversation mapping technique with turns marked as co-operation or defection. Section 8;3 examines some specific examples of switches, firstly those which demonstrate metalinguistic awareness and a preference for language homogeneity. Then some examples are given of an emerging ability to use code-switching to show an understanding of both cultures which the languages represent (conversational code-switching). The measures of pausing and laughter are briefly interpreted. Finally, in section 8;5, the patterning of C-acts and linking of conversational turns into sequences are discussed.

8;1 GAME THEORY, FIRST ANALYSIS - LANGUAGES AS PLAYERS

8;1;1 Dyads

The bilingual game matrix (Fig. 5;2) makes predictions about a 'depersonalized' playoff between languages, as has been described in section 5;1;2. The joint conversation profiles, which were introduced in section 7;1;3, represent this playoff in graphic form. When the tokens plotted on the profile form an uninterrupted diagonal line this represents use of one code by both participants and hence total co-operation. A conversation consisting of all Punjabi tokens would be represented in profile as a line leading to the top right as in Figure 8;1(a). A 100% English conversation, a line leading to the bottom right, is shown in profile in Figure 8;1(b). On the other
hand, a graph which fluctuates about the x axis, such as that shown in Figure 8;1(c), represents frequent code switches, which may be taken as symptomatic of a failure to achieve a co-operative one-language solution. Such a graph would be predicted from a playoff between languages in the bilingual game where, theoretically-speaking, the psychological states of co-operation and conflict are absent or applied haphazardly. I will use code-switching as a superordinate term to include code-mixing since in the conversation profiles the tokens are regarded as items existing apart from the structures (e.g. phrases, sentences) into which they enter.

Profiles have not been drawn for all the dyads. The following dyads showed no code-switching, except for odd tokens which filled a lexical gap: 2M, 3M, 5M, 6M, 7M, 10M, 11M, 5m, 6m, 10m, 11m, 12m, 3n, 5n, 8n, 9n, 10n, and 11n, so it was not necessary to draw their profiles, since they all fall on the diagonal. The profile for 1M, with an adult interlocutor, has not been included. This conversation featured an early switch of one conversational turn to Punjabi and its repetition, but it is otherwise English. The profile for 4M has likewise not been included, but there was a one-turn switch to Punjabi midway through the conversation following a series of content defections. These cases can be further examined in the appendix, and in the conversation mapping (Graphs 10; 1 & 10; 32).

Profiles for the individual participants are presented alongside the joint dyadic conversation profiles in Graphs 7; 1 to 7; 17 (with the exception of some null dyads whose data is compounded in one joint profile). The longer profile is the joint one, labelled (a). The individual profiles are the two shorter ones, labelled (b) for the subject and (c) for the interlocutor. The arrangement of the three graphs on one page is dictated purely by the best way to fit them onto the paper. They do not all begin at the extreme left of the x axis, where graphs traditionally start, since for the convenience of layout some graphs share an x axis. Consequently, zero on the x axis is defined as the point where a profile begins.
8;1;2 **Asymmetric trends in dyads**

Referring to the first four columns of Table 7;2, some of the dyadic conversations are in one language and some are code-switched. The dyads which did not switch exhibit the totally co-operative solution to the two-language dilemma. Considering the switched language dyads, those which are plotted in profiles (Graphs 7;1 to 7;17), the majority of joint profiles (labelled (a)) finish with a solution of higher proportions of one language than the other, i.e. the psychological state of co-operation, expressed in stretches of one language, outweighs the effects of defection which would cause the graph to fluctuate about the x axis. This is portrayed in the movement of the profile away from the x axis. There are joint
profiles which finish on or near the x axis and this would show that, in those particular conversations, the language playoff had reached deadlock or had come close to doing so (zero-sum in the game-theory terminology of section 5;1;2, with 50% of one language and 50% of the other. The dyads illustrating this situation are; 3m in Graph 7;7(a), 8m in Graph 7;10(a), 12n in Graph 7;17(a), and to a lesser extent 2m in Graph 7;6(a).

There are asymmetric trends in the dyadic data as a whole, apart from the phenomenon of individual conversations being resolved in higher proportions of one language than the other. Thirty out of thirty six (83%) of the dyadic conversations, which were recorded in Leeds nursery schools, were resolved in higher proportions of English than Punjabi.

The attempt to find more Punjabi-speaking Major contacts by selecting good friends, or relatives, from the community was successful in that two of the four Major dyads recorded, in Leeds, in the second phase of data collection, resolved their conversations in higher proportions of Punjabi than English (compared with one out of eight Major contact conversations resolved in Punjabi in the first part of the study).

8;1;3 Joint and individual profiles compared, languages as players and participant contributions

The conversation profile technique highlights the progress of a bilingual conversation as one language displaces the other but one drawback is that since the number of tokens per conversational turn varies, comparisons of individual profiles at equidistant points along their length cannot be made. The profiles are best grasped as wholes. So, for instance, in the case of 2m in Graph 7;6, the individual profiles (b and c) seem to be rather different, especially in their positions relative to the x axis, but they can both be seen wholistically as following the same fluctuations as the joint profile (a). In overview, rather than in detail, they could be described as 'scaled down' models of the joint profile. The profiles for 3m (Graph 7;7) illustrate this point most effectively. It seems to be the
general rule that individual profiles for a dyad follow the same pattern as each other. There are exceptions, however. The profiles for 12M (Graph 7;3) show what happens to the joint profile when the contributions from the speakers are out of step with each other. The joint profile, at least for the first half, shows an apparently random switching, yielding a 50% Punjabi/50% English bilingual mix.

8;1;4 Differences between sets, Majors, minors and nulls

Results of t-tests and χ² tests for type and token counts (7;1;1) showed that code-switching was more prevalent within dyads at an intermediate state of familiarity. Some subjects never switched at any level of familiarity. Between comparative strangers (null contacts) and good friends (Major contacts) there was less switching. (a) Major contacts

For Major contacts there were three dyads which exhibited switching. In dyad 9M (Graph 7;2), the profiles for the two speakers follow a similar path to each other. Dyads 8M (Graph 7;1) and 12M (Graph 7;3) are exceptional (see section 7;0;1). In Graph 7;1 subject 8, speaking a different dialect of Punjabi, has an individual profile (b) which differs from that of her Major contact (c). However, the two profiles are a better match than those for the minor contacts, 8m in Graph 7;10 (b and c). This might be expected since, although subject 8's language poses a comprehension problem for the interlocutors in dyads 8M and 8m, we would expect Major contacts to accommodate to each other better than minor contacts, on the basis of observations of the other dyads; that preferred interlocutors co-operate in using increasing proportions of one code.

The participants in 12M were twin sisters. Their special circumstances are outlined in section 7;0;1. The two individual profiles (Graph 7;3, b and c) appear to be completely out of phase with each other, certainly for the first half of the conversation. However, the individual contributions to the joint profile (a) are of rather different proportions and comparing the latter part of these with the latter part of the joint profile, where it rises up from the x axis and levels out, shows that there is more accommodation to the
other party towards the end of the conversation. Whereas subject 12 failed to 'phase in' with her sister in 12M, she managed to accommodate well to another partner, the subject, in 9M (Graph 7;2(c), as can be seen in a comparison of Graphs 7;2 (b) and (c). The subject of 12M was the twin who had stayed in Leeds whilst her sister, the interlocutor in 12M, had been to India. From Table 7;2 it can be seen that the subject used 69 tokens of English and 92 tokens of Punjabi in conversation with her twin sister, but (as interlocutor) she altered the language mix to 20 tokens of English and 68 tokens of Punjabi in conversation with a best friend in 9M. Although it is impossible to draw definite conclusions on the basis of one example, the reason that the subject of 12M used such a large proportion of English in 12M can most likely be explained in terms of her desire to establish her 'Englishness' in relation to her sister.

The general preference for one language use at Major contact level is supported by Grosjean's (1982 p.136) observation that most bilinguals have an agreed-on language for use with friends and relatives.

(b) minor contacts

At minor contact level code-switching is most evident (Graphs 7;4 to 7;11). In all but one of the switched minor dyad conversations the code choices of one participant followed that of the other. 3m in Graph 7;7 is a good example to illustrate the point that the speakers are monitoring the code choice of the other and accommodating to the pattern which they are jointly creating. So, although there are defections (code-switches), in a very general sense speakers are co-operating in making defections from a one language co-operative solution; they are expressing conflict with co-operation. The exceptional case, Graph 7;10 for 8m, shows two speakers making code choices which are completely at odds with each other, which could be described as conflict without co-operation. This was the case where the subject spoke a dialect of Punjabi which the interlocutor had difficulty in understanding (see section 7;0;1).

In an analysis of adult Spanish/English alternation, Valdés Fallis (1976) refers to 'symmetrical switches' in segments of three conversations, where the switching patterns of one participant seem
to reflect the blend and proportion of those used by the other speaker. This 'imitative' switching, which is regarded as one of twelve principal types of adult switching (Valdés Fallis 1976 p.58), appears to be similar to the conflict with co-operation occurring so frequently between young bilinguals at an intermediate stage of familiarity.

The switching displayed by dyads 9M and 9m differs from the general trend in that the conversation of the Major dyad, on the basis of the token figures from Table 7;4, is more switched (25% English and 75% Punjabi) than that of the minor dyad (83% English and 17% Punjabi). The conversation profiles (Graphs 7;2 and 7;11) show quite different processes in operation. The speech of dyad 9M is predominantly Punjabi with English intrusions. There was also a problem of six interruptions during the recording when one of the children repeatedly opened the door, which inevitably introduced an 'English' element, as the experimenter was standing outside. There is no clear relation between the 'door opening' and a subsequent stretch of English speech, but the first, third, fourth and sixth interruptions in Graph 7;2 are shortly followed by English intrusions and it seems likely that the contact with 'English' had some influence.

Dyad 9m on the basis of percentages of the two languages seems to be less mixed than 9M, but Graph 7;11 shows more of the 'game' typical of minor contacts, in an initial stretch of Punjabi with English intrusions, then a switch to English speech giving a zero-sum game at one point (where the profile crosses the x axis, about a third of the way along).

(c) null contacts

In general, children could be interpreted as 'playing safe' at null contact level, by staying in one code. Graphs 7;12 to 7;16 show that where there are defections these are spasmodic intrusions into the other code. Dyads 1n, 2n and 4n (Graphs 7;12, 7;13 and 7;14) all include a defection by one participant shortly followed by a code-defection in the same direction by the other participant. Dyads 6n and 7n (Graphs 7;15 and 7;16) both feature only one defection each. Dyad 12n (Graph 17;17) is the profile which most nearly fits the
description of 'frequent and random mixing where the mean payoff is zero' predicted by the bilingual game matrix in Figure 5;2, depicted in graphic form in Figure 8;1 (c), and indicating a very limited display of co-operation. This dyad was the one mentioned as being exceptional (section 7;0;1) in that the children were of the opposite sex and did not want to stay together, as evidenced by seven interruptions in 306 seconds recording time.

The general pattern of limited switching between strangers has been described by Gumperz for adult bilinguals (1982 p.69):

Bilinguals, in fact, ordinarily do not use code-switching styles in their contact with other bilinguals before they know something about the listener's background and attitudes. To do otherwise would be to risk serious misunderstanding.

The process in children would have to be interpreted in terms of a more general tendency to respond co-operatively, such as a strategy of: try one language and if you get a same-code reply continue in the same way.

We can conclude that young bilingual children prefer the use of one language since they engage in long stretches of one language use with their most preferred interlocutor (Major contact), which can be interpreted as co-operative behaviour in the game-theoretic model developed here. At null contact level, perhaps the situation (room in an English medium school) and the tendency to respond co-operatively, dictates the cautious and co-operative strategy, which is 'use English with probes into the alternative code'.

(d) Summary of differences

Most of the switching takes place at minor contact level. Applying the first game-theoretic analysis (section 5;1;2), leads to the conclusion that it is normal to introduce linguistic conflict at an intermediate state of familiarity (as a psychological 'state' - see Chapter 4), since it is at this stage of friendship that profiles take on the appearance of 'frequent and random switching' which is predicted in a playoff between the two languages of the bilingual in the 2 X 2 bilingual game in section 5;1;2. This linguistic conflict
co-exists with co-operation when speakers are able to understand each other because profiles for individual participants in a dyad match each other. The 8m dyad shows what happens when speakers have comprehension difficulties, their language behaviour displays conflict without co-operation. The 8M dyad, whose members also have comprehension problems, displays less co-operation than would normally be expected, from the other Major dyad results. The twins in dyad 12M display conflict without co-operation which may not be typical of their general behaviour but it is interesting to see that interlocutors, if they wish to, can produce mirror images of each other's choices of code.

8;1:5 Groups-of-four

The groups-of-four data was collected to test a hypothesis that four children, mixed Major and minor contacts, would have more difficulty in resolving the problem of each having two languages available to them and additionally being relatively unfamiliar with some members of the group. The conditions were designed to maximise the possible incidence of switching. If the experimenter had wanted to contrive a situation in which bilingual children were more likely to use only one of their two languages then a group of Major contacts would have been chosen. Graphs 7;18 to 7;23 show the group profiles for the six substantially code-switched conversations, five out of the six were resolved in higher proportions of Punjabi than English. The hypothesis was not supported; an asymmetric trend towards language homogeneity for individual conversations is operating for the groups-of-four in the same way as for the dyads, except that it is more frequently in the opposite direction, towards Punjabi, which must be attributable to the language of the background culture in the community (Southall as opposed to Leeds).

The children are better than the experimenter predicted in resolving their dilemmas. This finding is particularly surprising considering the results in Table 7;33, that most of the sequences in groups-of-four are between two speakers. The implication is that speakers and non-speakers alike are monitoring language use and
adjusting their language preference to meet a developing group norm. The joint group profiles for the code-switched groups-of-four are, on the whole, more irregular than the joint profiles for code-switched dyads because there is a greater potentiality for switching with four participants. Two general points are that the individual profiles do not match each other to the same extent as in the case of the dyads and there are disproportionate contributions from different members of the group. In two groups one of the members remained silent. These were group F (Graph 7;21 (e)) and group G (Graph 7;22 (e)), and in group A (Graph 7;18 (b)), one participant spoke minimally. Groups C and E, using mostly English with small proportions of Punjabi (3% and 1%), have not been plotted as profiles.

The profile for group B in Graph 7;19 (a) appears to be a conversation of 'random and frequent' mixing but an examination of its four component individual profiles shows the two Major contacts (Graphs 7;19 (b) and (d)) accommodating to each other, in increasing proportions of Punjabi. The minor contacts (Graphs 7;19 (c) and (e)) begin with larger proportions of English but their profiles turn, to fall into phase with the two Major contacts, giving a cumulative effect of raising the joint profile away from the x axis in higher proportions of Punjabi towards the end of the conversation.

Group D is another case where the joint profile (Graph 7;20 (a)), shows frequent and random mixing and overall rises slowly from the x axis, with evidence of accommodation to Punjabi in the final quarter. In this case the individual profiles for two of the participants (Graphs 7;20 (c) and (d)) are in phase but the two other children, whose contributions are shown in Graphs 7;20 (b) and (e), seem to be undecided about the code to settle for until the end when all four are in phase.

8;1;6 The overall pattern for dyads and groups-of-four

In the bilingual conversations of the young children reported here the general trend is for code-switched conversations to be resolved in higher proportions of one language than the other. However, at minor contact level for dyads, the movement towards a
Joint solution of language homogeneity in one of the bilinguals' codes is most often reached after a period of fluctuation between the two codes. This period of indecision I have described as conflict with co-operation. In some cases the resolution in one language is not achieved, for example when the outcome, in game theoretic terminology, is zero-sum, e.g. dyad 3m in Graph 7;7. In exceptional cases the code-choice of the participants exhibits conflict without co-operation (dyads 8m and 12M). The overall pattern, particularly that shown as children move from minor to Major contact levels of friendship, could be seen as a telescopic view of Le Page's (1985 p.181) description of diffusion and focussing where a speaker is seen as modifying his behaviour through reinforcement and feedback to accommodate to others, in a group (in this case consisting of two or four members) with which he wishes to be identified. Fluctuations in dyadic and group profiles reported here would represent diffusion, whereas the movement towards language homogeneity, shown when joint dyadic and group profiles rise or fall away from the x axis, depict the phenomenon of focussing. The exceptional data of dyads 12M and 8m could be explained in terms of the participants expressing a desire to distance themselves from each other.

There is a much higher proportion of Punjabi overall in the Southall recordings than in the Leeds recordings. Five out of the total of eight groups in Southall nurseries (63%) resolved their conversations in higher proportions of Punjabi, compared with 17% resolved in Punjabi in Leeds. So, in the small number of recordings made in Southall compared with Leeds, there is an asymmetric trend towards a preference for Punjabi even in a setting (nursery school) where an observer might have expected to find English. These findings were predicted in the game theoretic framework of asymmetric contests, section 5;3, where an asymmetric cue could settle a contest leading to use of increasing proportions of the language of the background culture.
The second game theoretic analysis is based on the iterated version of the Prisoner’s Dilemma game where the collective rationality prescribes that players both choose the co-operative move (C). This is described in section 5.1.3. From section 5.2.4 the notion of TIT FOR TAT (TFT) is adopted as the most successful strategy to solve the Prisoner’s Dilemma, which dictates that a player co-operates on the first move and then does whatever the other does on subsequent moves. In the bilingual setting a co-operative move would be staying in the same code and a defection would be a code switch. Elaboration of the procedure for classifying the conversational turns as co-operative moves (C) or defections (D), is explained in section 7.2.1. C and D moves are marked on the conversation mapping in Graphs 10.1 to 10.32. The other type of defection described in 7.2.2, content defection, has been coded ‘d’ on the same graphs. This analysis was only done for the dyads, since comparisons of the behaviour of the three sets, Majors, minors and nulls, were of most interest.

8.2.1 Code-defections

There were overwhelmingly more co-operative moves than defections at all levels of familiarity (see the final two columns of Table 7.21). There was a higher percentage of D moves for minor contacts than for either null contacts or Major contacts but although the figures approached significance at the 5% level, they were not significant (Table 7.22). The fact that not all dyads code-switched contributes most to the failure for t-tests to reach significance (for the same reason, some of the token %lhi and type %lhi t-test results reported in Table 7.7 were of reduced significance). The small numbers of code-defections for individual dyads in the three familiarity conditions meant that the the criteria for the application of the $\chi^2$ test could not always be met. There was no difference between sets of null contacts and sets of Major contacts in the percentage of defections. The data in Table 7.17 shows that,
excluding dyads for subjects 8 and 12, the longest sequence of D
defections was 4, but most D sequences consisted of single or double
defections (60% and 33% respectively) and sequences of more than two
D's occurred only at minor contact level. These results are in line
with the TFT model which dictates a strategy of:— co-operate on the
first move and then do whatever the opponent does, always being
prepared to return to co-operation. Since the reciprocated defections
(40%) are considerably less than the single defections (60%), the
implication is that young bilinguals naturally use the solution of
collective rationality which prescribes C. They are quite willing to
play C after D and hardly ever become involved in long sequences of
presumably stressful code-defections. At an intermediate stage of
friendship the overall quantity of defection reaches a peak and two
or three consecutive defections are more likely than at null contact
level. Defections decreasingly occur as the level of friendship
increases, i.e. as participants in the bilingual game interact more,
which would be predicted from an iterated version of the Prisoner's
Dilemma. This behaviour could be described as another form of
'sociocentrism' (Chapter 3 part 3), since it is an adaptation of
speech to the listener's needs.

Content defections

A pattern was noticed during transcription that minor contacts,
who did not code-switch seemed to be displaying conflict in the
content of the message. Content defections 'd' tended to occur
amongst non-switchers or in monolingual stretches of bilinguals'
conversations at intermediate friendship level. As in the case of
code defections, most of the 'd' sequences were fairly short. The
figures for 'd' defections are reported in Table 7; 20. 61% of
sequences were single 'd's, 17% were double and 12% were treble.
There were, however, some longer sequences; four 'd' sequences of six
turns long and two of eight turns. These results can again be
interpreted as a general tendency for children to return to co-
operation after a defection, without becoming involved in long series
of 'd' defections.
The categorization of a 'd' defection leads to speculation about the nature of single 'd' defections. As these were not taken up by the other party were they subjective adult judgements of how children ought not to speak to each other? Does a defection have to be challenged before it can be known to be a defection by an outside observer? A working definition of interpersonal conflict among children has been proposed by Shantz & Shantz (1985), where conflict is defined as any sequence in which Child A tried to influence B's behaviour, B resisted it, and A persisted. This definition, however, fails to account for the single defections found in this study. There is some support for the occurrence of unopposed defections in Maynard (1985 p.3) where the term 'arguable' utterance or action is suggested, to describe the objectionable features of an utterance or action which could, if contradicted, become part of a dispute. The opposition which would normally be the second move in a dispute may work to forestall an argument and in the terminology of the present study this second move would not be a 'd'. A large proportion of content defections were classified by the judges in this study as single 'd' defections (see Table 7;20), hence 'arguable' but unopposed. Further support for the existence of single content defections can be drawn from the parallel case of single D defections (Table 7;17) which are so frequent.

8;2;3 Code and content defections

The fact that not all of the minor dyads were code-switchers contributes most to the lowering of t-statistics for code-defections (D) when the set of minor contacts are compared with the other two sets, Majors and nulls. However, content-defection 'd' usually occurred in monolingual stretches of the bilingual's speech, that is, in the absence of code-switching. The addition of code-defection and content defection (D+d in Table 7;21) yielded a highly significant result of more defection at an intermediate state of familiarity than at either null or Major contact level (Table 7;22). The distribution of code and content defection is compared in bar graphs (Graphs 7;24 to 7;26). Code defection and content defection are in roughly
complementary distribution, but one type does not exclude the other. In Graph 7;25 there are five dyads, 1m(a) & (b), 2m, 3m, 7m and 9m which include both types of defection but in each case where D is high, d is low and vice versa (1m(a) and (b) have been plotted separately in the graph since their relative D and d distributions differed). The complementary distributions of D and d are more obvious for Major dyads 4M and 9M in Graph 7;24 and for dyads 2n and 4n in Graph 7;26. The conversation for dyad 4M includes an interesting example of a series of content-defections (d) followed by a code-defection (D) when the 'd' series seems, from an observer's point of view, to be inconclusive (see 4M turns 46-52 in the appendix, section 10;2;1). There were only four instances, in the data as a whole, of content defection and code defection occurring simultaneously in the same utterance. The distribution of content defection in relation to code defection gives further support to the notion that the type of code-switching used by the young bilinguals in this study, most obviously at an intermediate state of friendship, is accurately described as conflict. Code-switching could be viewed as a 'game-playing' expression of conflict, which is an extra resource available to bilinguals in their conversations with each other.

The earlier conclusion could now be elaborated. It is normal to introduce linguistic conflict at an intermediate stage of friendship, either by code-switching or defection expressed by the content of a message. Young bilingual children engage in TFT behaviour which leads to acceptance of the collectively rational solution of increasing the proportions of C following CC moves as their conversations and friendships progress, i.e. as they interact more. In section 5;2;5 it was proposed (Maynard-Smith 1982 p.171) that learning would not provide an explanation for the development of TFT. Since the young children in this study overwhelmingly respond to C moves with C moves at null and Major contact level and they display limited defection at minor contact level, avoiding involvement in long series of code or content defections, they are 'nice, provokable and forgiving' (see 5;2;4). This pattern leads to a conclusion that TFT is apparently an ESS (in addition to being a collectively rational strategy) which has
been genetically programmed in human behaviour and which is nurtured in the nursery school environment and presumably in the homes and community of the bilingual children in this study.

8;3 HOMOGENEITY OR HETEROGENEITY, SOME EXAMPLES OF SWITCHING EXAMINED

8;3;1 Homogeneity, the collective rationality

As well as a collective movement towards one language use as shown in the conversation profiles (Graphs 7;1 to 7;23), there is one example in the transcription of children instructing each other towards the solution of language homogeneity, this is the translation of the lexical item 'birds' to ciřiaŋ in Group G turns 24-29:

3 sōmose birds khande hundi a, sōmose
   SAMOSAS EATING AUX SAMOSAS
2 ha
   YES
1 ciřiaŋ, birds nōi a, ciřiaŋ a
   BIRDS NOT ARE BIRDS ARE
3 birds nōi a ciřiaŋ a
   NOT ARE BIRDS ARE
1 haŋ ciřiaŋ
   YES BIRDS
3 ciřiaŋ hana hana ciřiaŋ a
   BIRDS NOT NOT BIRDS ARE

It appears here that child 1 is instructing child 3 that the 'correct' form to use in a Punjabi sentence is ciřiaŋ rather than 'birds', child 3 repeats this information, child 1 acknowledges that child 3 has used the right form, then finally child 3 confirms the 'correctness' of the Punjabi equivalent.

There is one instance of a request for a translation, an identification or an equivalent when a child in Group B Turn 83 asks:

    cini cini ki hunda a?
SUGAR SUGAR WHAT IS

Although cini is a standard form, jākkār is more common in Southall.
As an example of a game-playing switch, the speaker creates a word of mixed morphology (Group G Turn 56):

```
hello ciris
BIRDS
```

Here the English plural suffix is added to the Punjabi word for bird, this occurred after the same child had used the adult form of the plural, cirliaj as well as 'birds'.

From the Leeds data, the children show a metalinguistic awareness in the following example, dyad 4m Turns 37-47:

```
J  jiste tu khl kta siga (laugh=1) hello // @
LIKE YOU YESTERDAY SAID PAST AUX(EM)
SAY IT LIKE YOU SAID IT BEFORE
I  rabit
RABBIT
J  nai
NO
I  rabbit
```

Then eventually the required name:

```
J  hello kærtra (laugh=3.5)
NAME
```

There is an interesting switch in dyad in Turn 10, where G, who has been speaking English in a series of isolated turns with his null interlocutor, obviously recalls happier times (his earlier conversation with Mampreet in 1m) and says into the microphone:

```
... hello(.) hello (1) tū ki kārda va, tū Mampreet, hā?
YOU WHAT DOING AUX YOU MAMPREET
```

The previous conversations (1m(a) and 1m(b)) with Mampreet had been code-switched but there was a preference for English speech with that interlocutor (84% E tokens) so the above example which is the first switch by G from English into Punjabi (Turn 10 of the in conversation) is best interpreted as distancing from the present interlocutor.
Heterogeneity, the dynamic collective rationality

An important point in the second game theoretic analysis (section 5;1;3 is that adults have the option of operating a 'rationality' which overrides a preference for language homogeneity. Within the child code-switching which has, so far, been treated as 'game-playing conflict', there is also evidence of the emerging ability to exhibit the other solution of dynamic collective rationality by utilizing code-switching as a device for demonstrating an understanding of both cultures. From Gumperz's preliminary typology of six conversational functions of code-switching, four types can be found in the child data reported here, (i) quotations, (ii) addressee specification, (iii) interjections and (iv) reiteration.

(i) Quotation

In the absence of the speakers' intuitions, I suggest that the following quotations, in English, embedded in otherwise Punjabi speech are instances of 'speakers and listeners subconsciously utilizing internalized social and grammatical knowledge' (Gumperz 1982 p.64).

In Group H Turn 100:

\[\text{o k\={a}Indi can you put it down (6) fer k\={a}Indi can you put down (2)}\]
\[\text{SHE SAID THEN SAID}\]

In Group G Turn 42 there is an instruction translated into the code of the intended receiver:

\[\text{onu d\={a}si p\={a}\text{I}la /asi/ can we 'ave some more}\]
\[\text{TO-HIM/HER TELL FIRST /ASK O MAYBE/}\]

This is followed by the expected reply from the teacher:

\[\ldots\text{fs\={a}\text{d}og o h\={a}ndi si k\={a}Indi you can have some more...}\]
\[\text{WHEN SHE WAS AUX(PAST) SAID}\]
(ii) Reiteration for emphasis

In the following examples the repetitions serve to clarify or emphasize the message.

Group A Turn 2:
's not eating anything
khande nɔi hɔndi khande
EATING NOT AUX EATING

Group B Turn 76:
mānu vi dəna
to-me also give
gi' me another

Group G Turn 85:
khande
EATING (p1)
he eatin'

Group H Turn 103:
ethe rɔkho
dhere put
put it in

1m(b) Turn 45:
nothing
kuc nɔi @ kuc nɔi @
NOTHING NOTHING

(iii) Interjections/sentence fillers

There is one example which matches an instance quoted by Gumperz (1982 p.78).
3m Turn 49:
you you know wɔde cute kɪnne @ @
HIS ON-THE-SWINGS HOW-MANY
There are three examples of the Punjabi question-tag 'hana' added onto English utterances which probably fit the category of sentence-filler:

Group A, Turn 21:
   I gonna take all fo' us (.) hana?
Group G, Turn 18:
   I like small birds not big birds hana?
9X, Turn 47:
   I've got a sweet hana?

The English equivalents for hana which would be required in these sentences are: 'aren't I', 'don't I' and 'haven't I' respectively. So the single Punjabi tag is more 'economical', but in all three cases the addition of the appropriate English tags would produce utterances which seem slightly unusual in this context.

(iv) Addressee specification

All of the following examples are taken from recordings when the experimenter interrupted the conversation by entering the room. Generally these short passages (not transcribed in the appendix) were initiated by a query from the experimenter (E), but in some cases one of the children was speaking in Punjabi to a peer and switched to English to address the experimenter.

In dyad 7m, following Turn 24, speaker D who has been using Punjabi with G runs out to get the experimenter and says:

D we gonna wash 'im

In 9M, following turn 17, T who has been using Punjabi with S, opens the door and says to the experimenter (E):

T come 'ere
E what is it?
T you got another one rabbit?
In dyad in following Turn 24, at the end of the conversation, G has been speaking Punjabi but when the experimenter enters, he says:

G he got it over that side himself

There is a fairly long English interchange in Group G when the experimenter enters following Turn 85. The conversation up to that point has featured increasing proportions of Punjabi as the profile in Graph 7;22(a) shows. Following the experimenter's intervention, after the bird cage had slipped to the edge of the table and finally fallen on the floor, the group conversation continues in Punjabi. I quote the English passage which is not reported in the appendix (between Turns 85 and 86):

E oh dear, poor little birds
3 fallen down
E oh, let's pick it up
3 I haven't finished
E you finished?
3 I wanna do some more
E there are a lot of little bits on the table, can you pick them up?
3 look, dat's fall
E yes, I'll put that back later.
  can you put these little bits in?
1 hey, let me get the things
3 I wanna do some more
1 hey, let me get these @ @
E no you stay there dear// * just a few more minutes and talk to them and then you can come and get your things alright?
3 I want*
  oh

In a discussion of conversational code-switching, Gumperz (1982 p.66) refers to the switcher's two codes as 'we' and 'they' codes, where the minority language becomes associated with in-group and informal activities and the majority language is associated with more formal, stiffer and less personal out-group relations. This does not seem to be the case for the child language data presented here. McClure (1981) confirms that amongst child subjects (whose systems are not fully developed) the we/they distinction does not hold.
Another interpretation of the examples given in 8;3;2 (following the game theoretic analysis developed at the end of 5;1;3) is that the children switch between the two languages to demonstrate their understanding of, and affiliation to both cultures. They wish to identify with both.

Two out of the six conversational functions of code-switching described by Gumperz, message qualification and personalization versus objectivization, are not manifested in the child data. In the first type, message qualification, the main message is given in one code with a qualifying construction in the other code. It seems unlikely that four year olds have the necessary elaboration of syntax to employ this kind of switching but perhaps it would be the next to develop. The second type, personalization versus objectivization, probably requires more experience of the 'talk environment' than young children could be expected to have had. Gumperz describes this large category of switches as follows (Gumperz 1982 p. 80):

The code contrast... seems to relate to such things as: the distinction between talk about action and talk as action, the degree of speaker involvement in, or distance from, a message, whether a statement reflects personal opinion or knowledge, whether it refers to specific instances or has the authority of generally known fact.

8;4 OTHER MEASURES

8;4;1 Pauses

The total amount of time spent in pausing (Table 7;5) was greater for null contacts than minor contacts and greater for minor contacts than Majors but only means for the sets of nulls and Majors differed, at the 1% level (Table 7;7), showing that conversations between Major contacts are qualitatively better in that they are more cohesive. This could be seen as another form of co-operative behaviour developing between interlocutors as they interact more. The increased fluency of conversations between Major contacts was not accompanied by a significant increase in the number of turns in overlap (shown in
Table 7;20 but not recalculated proportionally to an average recording time). Overlaps were relatively infrequent at all levels of familiarity. These findings confirm Ervin-Tripp's claim (1979) that participants neither display random gaps nor speak in overlap because they are interested in the speech of others. A corollary of the decreased pausing between Major contacts was that there were significantly more \((E+P)\) tokens for sets of Major contacts than for sets of null contacts.

8;4;2 Laughter

The means for the total amount of time spent in laughter and laughter & noises denoting a playful attitude between sets of Majors, minors and nulls were compared. The figures are given in the last two columns of Table 7;5. Laughter and laughter & noises were less prevalent between minor contacts, i.e. the stage at which conflict is maximised, but the differences between minor sets and Majors or nulls was not significant. An examination of the conversation mapping graphs (Graphs 10;1 to 10;32) shows that when laughter appears in conversations between minor contacts, it generally falls in the first part of the conversation, perhaps before the participants are aware of the conflict which they are jointly creating in the encounter, supporting a notion that something mildly stressful is occurring at an intermediate stage of friendship. This observation, which I feel is important, can, however, only be regarded as speculative since differences failed to reach significance in t-tests.

8;5 CONVERSATION ACTS

8;5;1 Patterning

The results of counts for \((E+P)\) tokens showed that Major contacts used significantly more tokens in their conversations than null contacts (Table 7;7). The examination of patterning of C-acts would, it was hoped, show whether these quantitative differences were accompanied by qualitative ones. Conversation acts for sets of Major,
minor and null dyads and groups-of-four were totalled and the means (from Tables 7:26, 7:27, 7:28 and 7:30) were plotted on bar graphs (Graphs 7:27 to 7:30). Surprisingly, the graphs were very similar in overall pattern and the C-act analysis rather than exposing differences between familiarity levels and numbers of participants (dyads or groups-of-four) provided confirmation that a constancy had been maintained over recordings.

Action Requests (RQAC) and Descriptions (ASDC) were the most well represented categories of C-acts, these were followed by Attention Getters (ODAG) and Exclamations (EXCL) (The coding scheme is given in the first appendix, 10:1). The mean totals of C-acts (taken from Tables 7:26 to 7:28) increased with familiarity between dyad members. The figures are: Majors 118, minors 103 and nulls 88. These differences are reflected in a general lowering of the columns moving from Graph 7:27 to 7:28 to 7:29. There is one noticeable trend of a reduction in the category of C-acts with the prefix RS (Responses) as the level of familiarity decreases. This is another manifestation of the results on the 'linking' of conversational turns for dyads, reported in Table 7:31, where Major contacts are seen to be more highly 'linked' than either minor or null contacts to a highly significant extent. One of the most obvious ways of linking conversational turns is by providing a Response (RS) to a Requestive (RQ), so the more 'linked' conversations between Major contacts would be expected to feature more C-acts with RS prefixes.

The mean total of C-acts for the groups-of-four (132 C-acts) was greater than those of any set of dyads. Although the graph for the groups-of-four mean C-acts (Graph 7:30) is similar to those for the dyads (Graphs 7:27 to 7:29) there are some differences reflecting the larger proportion of total C-acts. This is shown in the relatively higher columns for Descriptions (ASDC), Attention Getters (ODAG) and Exclamations (EXCL). The percentage of linked turns for groups-of-four (49%) was quite high and this is reflected in the columns for prefix RS C-acts which are comparable to the equivalent ones (Graph 7:28) for minor dyads, which showed a similar degree of linking (43%).
The patterning of C-acts for conversations with very low levels of linking (1n, 2n, 7n and 9n) was examined in bar graphs plotted for these dyads separately in Graphs 7;31 to 7;34. The conversation of dyad 7n was atypical in that it consisted mainly of Attention Getters (ODAG) and Exclamations (EXCL). The conversations of 1n, 2n and 9n (Graphs 7;31, 7;33 and 7;34) seem to show a trend of increasing range of C-acts with increased linking, such that with as little as 19% linking (Graph 7;34 for 9n) the C-act patterning is basically similar to that for the means of C-acts for the set of nulls plotted in Graph 7;29, with three out of four of the characteristic peaks, for Action Requests (RQAC), Descriptions (ASDC), and Attention Getters. The conversation for dyad 1n (0% linked, Graph 7;31) consists of Requestives which receive no Response, Assertives, Attention Getters and Exclamations. With 13% linking (2n Graph 7;33) there is the familiar high proportion of Action Requests (RQAC), together with some Responses (RSCH and RSQI) and some Performatives (PFTE and PFWA).

The C-act patterning for dyad 1M was plotted separately in Graph 7;35, since this dyad was the most highly sequenced conversation (70% linked) and one of the participants was an adult. The pattern was similar to the graph for the means of C-acts for Major contacts (Graph 7;27) but the C-acts with the prefix RS (Responses) were higher, as would be expected with more linking. Another noticeably higher column was the category ASEX for Explanations. This finding could have been predicted, as an adult participant is more likely to provide explanations to a young child than one of his peers.

At all levels of familiarity children used speech acts which guided peer behaviour (cf. Pelligrini 1982 in Chapter 3, Part 3).

8;5;2 Linking

Major contacts displayed more linking of conversational turns than either minor or null contacts (1% levels of significance, Table 7;31), even though the frequency distribution of C-acts was similar for all three sets. Linking could be equated with sociocentric behaviour whereas isolated turns would represent egocentric speech.
The data confirms the suggestion by Dore (1978 p.383), quoted in Chapter 3, part 3, that talk between nursery-age peers 'may be a flow of collective or private monologue interspersed with genuinely communicative exchanges', but additionally the results of 'linking' show that the proportion of communicative exchange (linked turns) to collective monologue (isolated turns) varies with the degree of familiarity of the conversationalists.

An intermediate state of familiarity seems to be the 'watershed' where conflict in terms of code switching and content defection are acted out before speakers increasingly link-in their conversational turns and move towards other forms of co-operation including language homogeneity and reduced content defection. These observations support Piaget's notion of sociocentrism emerging when egocentric problem-solving strategies are challenged by a peer.

Linking in the groups-of-four was 49.3%, a value between that for minor dyads (43%) and Major dyads (58.5%). The groups-of-four, which were composed of Major and minor contacts, thus appear to have no more difficulty than dyads in sequencing their turns. However, an examination of the numbers of speakers participating in sequences in the groups-of-four conversations (Table 7;33) showed that sequences are generally between two speakers (85.2%) or less frequently three speakers (14.1%). There was only one instance of a four-person sequence. Further support for the number of children who can apparently normally manage to interact in this sort of situation being 2/3 comes from the token data in Table 7;13. In four out of the eight groups-of-four (groups A, C, F and G), one child remained silent or spoke minimally, so the group effectively formed itself into a triad.

The data for the longest sequences in each conversation (Tables 7;31 and 7;32) compared well with the findings of Garvey and Hogan (1973) reported in Chapter 3, Part 3. The longest sequence between peers was 12 turns long, although one sequence of 16 turns was recorded between a child and adult in 1M.
CHAPTER 9
CONCLUSIONS

Code-switching can be interpreted differently, in a game theoretic framework, depending on whether the co-operative strategy is seen as a preference for language homogeneity, or whether it is regarded as a higher order of dynamic collective rationality where speakers can demonstrate their co-operativeness by switching between the codes which represent the social groups to which they feel affiliated (Chapter 5).

It is normal to introduce linguistic conflict at an intermediate stage of familiarity (4;4, 8;1;4, 8;2;3).

This conflict co-exists with co-operation as long as speakers can understand each other (8;1;4).

Some individuals may not exhibit conflict by switching codes, but rather through the content of the message, while remaining in one code (7;2;2), 8;2;2), 8;2;3).

Four-year olds show the beginnings of an appreciation of the use of 'conversational' code-switching (Gumperz 1982 p.75-84) to demonstrate a social knowledge of language use (8;3;2). Four of Gumperz' conversational functions of code-switching are manifested in the data.

Most of the children's bilingual conversations are resolved asymmetrically, in higher proportions of one code than the other, i.e. in favour of language homogeneity (7;1;3, Graphs 7;1-7;23, 8;1;2, 8;1;5, 8;1;6).

Young bilinguales engage in TIT FOR TAT behaviour, which employs a collectively rational solution to the two language dilemma, leading
to increasing proportions of co-operative behaviour as participants interact more (5;2;4, 8;2;1, 8;2;2, 8;2;3).

TFT is apparently an evolutionarily stable strategy which has been genetically programmed in human behaviour (5;2;5, 8;2;3).

Young children increasingly link-in their conversational turns with their interlocutors as they interact more (i.e. along the null-minor-Major familiarity scale). They move from a relatively egocentric to a more sociocentric state. This transition is most marked between children at an intermediate stage of familiarity (minor contacts) and good friends (Major contacts) i.e. having worked through the period of linguistic conflict (7;3;2, 8;5;2).

A controlled setting, topic, and task calls up a relatively stable pattern of conversation-acts, regardless of the number of participants (dyads or groups-of-four) or their familiarity with each other (7;3;1, Graphs 7;27 to 7;30, 8;5;1).

As the degree of familiarity increases, conversations between interlocutors become more fluent in that pausing is reduced (7;1;1, 8;4;1).

Groups-of-four are able to organize their conversations to solve the two-language dilemma and to produce sequences of turns as effectively as dyads but most sequences involve two (85%) or three (14%) speakers (7;1;2), Graphs 7;18-7;23, 7;3;2, 8;5;2).
10;1 TRANSCRIPTION CONVENTIONS

The conversational notation system is adapted from Levinson (1983 p.369)
// current utterance is overlapped by that below.
* alignment of points where overlap ceases (only one* or none marked when overlaps terminate at utterance endings)
(0.0) pauses or gaps, correct to 0.5 sec. End of turn pauses marked for
> 1 sec.
(.) micropause
: or :: lengthened syllables
- glottal stop self-editing marker. Used when a word is started and abandoned.
= latched utterances without a gap
? a rising intonation contour
(hh) audible out-breath
(.hh) an in-breath
(;hh) a gasp
// contain a broad phonemic transcription for an audible but incomprehensible utterance. Degrees of comprehensibility are marked in the gloss underneath, with decreasing degrees of certainty as:
HE GIMME, prob. HE GIMME, maybe HE GIMME, maybe HE GIMME.
0 unintelligible syllable, an interpretation of unintelligible syllables may be attempted on the basis of the intonation pattern.
<EST 2WP> or <EST 2WE> in the gloss means two words of Punjabi/English estimated for unintelligible syllables.

----- across the page means that the conversation was interrupted by someone entering the room.

..... across the page and bracketed together block off sequences of turns which are linked (see section 7;3;2 for an explanation).
[ ] observations by transcriber

- 192 -
English utterances are written in standard orthography adapted to some extent to be more representative of child speech and to show some features of the local dialect e.g. dat (=that), gonna, wanna 'e's (=he's). Items are written in broad phonemic transcription between / / when this orthographic representation is likely to be misleading about the pronunciation.

Punjabi utterances are in broad phonemic transcription. They are printed in italics and given word-for-word glosses in half height capitals underneath. A second free translation is given if the meaning of the first gloss is unclear.

The transcription used is basically that given in Gill and Gleason (1963).

Tone

Tone is distinctive in Punjabi. All Punjabi words have high, low or in most cases, neutral tone. For the purposes of this study, tone is only marked in the transcription where two words in the children's speech, having the same phonemic shape, are contrasted by tone.

Punjabi vowels:

<table>
<thead>
<tr>
<th>front</th>
<th>unrounded</th>
<th>back</th>
<th>rounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>i</td>
<td></td>
<td>u</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>e</td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>low</td>
<td>a</td>
<td></td>
<td>œ</td>
</tr>
</tbody>
</table>

Quality and duration of vowels are affected by accompanying tone. In general they are laxer with high tone and tenser with low. They are shorter with high tone and longer with low tone. Centralized vowels are associated with laxer articulation. Centralized vowels are
sometimes referred to as 'short' in contrast to 'long', following tradition in the description of Indian languages, but this distinction has no phonetic significance (Gill & Gleason 1963).

**Punjabi consonants**

/t/ and /d/ are dental.
/c/ and /j/ are affricates.
When transcribed with a following /h/, /p, t, l, c, k/ are aspirated.
Otherwise they are unaspirated.
/r/ is a flap.
/v/ = a voiced labio-dental approximant.
/t, th, d, n, L, L/ are retroflex.
/kh/ is a guttural sound, a velar fricative typically used in Urdu.
Double consonants in the transcription are held significantly longer.

Punjabi sections of the tape-recorded conversations were transcribed and glossed with the help of native speakers. These were school children, eleven in all, between the ages of 12 and 15 years. At least two native speakers of Punjabi contributed to the transcription of each of the Punjabi utterances.

**Conversation-acts**

Utterances were coded in the transcription using the conversation-acts classification developed by Dore et al (1978), and reprinted on the following pages.
CODES, DEFINITIONS AND EXAMPLES OF CONVERSATIONAL ACTS (from Dore et al 1978)

Requestives solicit information or actions.

RQCH Choice questions seek either/or judgments relative to propositions: "Is this an apple?"; "Is it red or green?"; "Okay?"; "Right?"

RQPR Product questions seek information relative to most 'WH' interrogative pronouns: "Where's John?"; "What happened?" "Who?"; "When?"

RQPC Process Questions seek extended descriptions or explanations: "Why did he go?"; "How did it happen?"; "What about him?"

RQAC Action Requests seek the performance of an action by hearer: "Give me it!"; "Put the toy down!"

RQPM Permission Requests seek permission to perform an action: "May I go?"

RQSU Suggestions recommend the performance of an action by hearer or speaker or both: "Let's do it?"; "Why don't you do it?"; "You should do it".

Assertives report facts, state rules, convey attitudes, etc.

ASID Identifications label objects, events, people, etc.: "That's a car."; "I'm Robin."; "We have a boat."

ASDC Descriptions predicate events, properties, locations, etc. of objects or people: "The car is red."; "It fell on the floor."; "We did it."

ASIR Internal Reports express emotions, sensations, intents and other mental events: "I like it."; "It hurts."; "I'll do it."; "I know."

ASEV Evaluations express personal judgments or attitudes: "That's good."

ASAT Attributions report beliefs about another's internal state: "He does not know the answer."; "He wants to."; "He can't do it."

ASRU Rules state procedures, definitions, "social rules," etc.: "It goes in here."; "We don't fight in school."; "That happens later."

ASEX Explanations state reasons, causes, justifications, and predictions: "I did it because it's fun."; "It won't stay up there."

Performatives accomplish acts (and establish facts) by being said

PFCL Claims establish rights for speaker: "That's mine."; "I'm first."

PFJO Jokes cause humorous effect by stating incongruous information, usually patently false: "We threwed the soup in the ceiling."

PFTE Teases annoy, taunt or playfully provoke a hearer: "You can't get me."
PFPR Protests express objections to hearer's behaviour: "Stop!"; "No!"
PFWA Warnings alert hearer of impending harm: "Watch out!"; "Be careful!"

Responsives supply solicited information or acknowledge remarks

RSCH Choice Answers provide solicited judgments of propositions: "Yes."
RSPR Product Answers provide Wh-information: "John's here."; "It fell."
RSFC Process Answers provide solicited explanations, etc.: "I wanted to."
RSCO Compliances express acceptance, denial, or acknowledgement of requests: "Okay."; "Yes."; "I'll do it."
RSCL Clarification Responses provide solicited confirmations: "I said no."
RSQ Qualifications provide unsolicited information to requestive: "But I didn't do it."; "This is not an apple."
RSAG Agreements agree or disagree with prior non-requestive act: "No, it is not."; "I don't think you are right."
RSAK Acknowledgements recognise prior non-requestives: "Oh."; "yeah."

Regulatives control personal contact and conversational flow.

ODAG Attention-Getters solicit attention: "Hey!"; "John!"; "Look!"
ODSS Speaker Selections label speaker of next turn: "John"; "You"
ODRQ Rhetorical Questions seek acknowledgment to continue: "Know what?"
ODCQ Clarification Questions seek clarification of prior remark: "What?"
ODBM Boundary Markers indicate openings, closings and shifts in the conversation: "Hi!"; "Bye!"; "Okay"; "Alright"; "By the way"
ODPM Politeness Markers indicate ostensible politeness: "Please"; "Thank you"

Expressives non-propositionally convey attitudes or repeat others

EXCL Exclamations express surprise, delight or other attitudes: "Oh!"; "Wow"
EXAC Accompaniments maintain contact by supplying information redundant with respect to some contextual feature: "Here you are"; "There you go"
EXRP Repetitions repeat prior utterances.

Miscellaneous Codes

UNTP Uninterpretables for uncodable utterances.
TRANSCRIPTS

G and A (adult) / 1M / hamster

<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>come on (5)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>where you going? (1)</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on (4)</td>
<td>RQAC</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>he's coming out other side (9)</td>
<td>ASDC</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>over here darlin' (2)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>oops!</td>
<td>EXCL</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>(laugh=2) owh!</td>
<td>EXCL</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>oops,</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on,</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>bite this @ (.)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and he'll play (1)</td>
<td>ASEX</td>
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<tr>
<td></td>
<td></td>
<td>talk to him (.)</td>
<td>RQAC</td>
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<tr>
<td></td>
<td></td>
<td>come on</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>talk to him</td>
<td>RQAC</td>
</tr>
<tr>
<td>6</td>
<td>G</td>
<td>Dan:dy:. (3)</td>
<td>ODAG</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>um?</td>
<td>RSAK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sit down then (.)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pick him up (10)</td>
<td>RQAC</td>
</tr>
<tr>
<td>8</td>
<td>G</td>
<td>(laugh=1.5) he gets off</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d'nt he?</td>
<td>RQCH</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>he does</td>
<td>RSCH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on (3)</td>
<td>RQAC</td>
</tr>
<tr>
<td>10</td>
<td>G</td>
<td>get 'im back in it (10)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh= 1) (4) put 'im on the floor</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= can ger it</td>
<td>ASEX</td>
</tr>
<tr>
<td>11</td>
<td>A</td>
<td>sit there</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sit there (6)</td>
<td>RQAC</td>
</tr>
<tr>
<td>12</td>
<td>G</td>
<td>err(=1.5) he @</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d'nt he? (4)</td>
<td>RQCH</td>
</tr>
<tr>
<td>13</td>
<td>A</td>
<td>go on (1)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d'you want to fee-//</td>
<td>RQCH</td>
</tr>
<tr>
<td>14</td>
<td>G</td>
<td>Dandy*</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4) (laugh=2) r?wmd9/ (1) ch:: /kəw/</td>
<td>EXCL</td>
</tr>
<tr>
<td>15</td>
<td>A</td>
<td>d'you want to feed him?</td>
<td>RQCH</td>
</tr>
<tr>
<td>16</td>
<td>G</td>
<td>yeah (3.5)</td>
<td>RSCH</td>
</tr>
</tbody>
</table>

what's dis here? (12)
[crackling paper]
A put it on there (.)
put it on
G where?
A on here (6)

G (laugh=1.5)
A tere Kar vi hoga? (1) eh? =
YOUR HOUSE IS (em)
IS THERE ONE (PET) AT YOUR HOUSE

G eh?
A tere Kar hoga? (3.5)
YOUR HOUSE IS (em)
IS THERE ONE AT YOUR HOUSE
eh? (1.5)
hoga ko? (2)
IS (em) ANY

G 'e eat it
A umh? (2)

have you got a pet at home
um:: (1) Gurvinder?

G no
A have you got a cat (1) or a dog?
G no
A our cat's died

G no
A have you got a cat (1) or a dog?
G no
A our cat's died

G no
A have you got a cat (1) or a dog?
G no
A our cat's died

G no
A have you got a cat (1) or a dog?
G no
A our cat's died

G no
A have you got a cat (1) or a dog?
G no
A our cat's died
45 A  catch him over by that @ (. )  RQAC

hold him (. )  RQAC

.  let's get him  RQSU

46 G  has he got stuck?  RQCH
47 A  no: (8)  RSCH

(laughter=1.5) (6)

48 A  Gurvin:der: over he:re  ODAG
49 G  what?  ODCQ
50 A  look  ODAG
   he's coming  ASDC
51 G  where?  RQPR

(laughter=2) eat your food (2)  RQAC

he's goin' over there (3.5)  ASDC
52 A  don't let him go now  RQAC
   (1) bring him back  RQAC

53 G  he's @ing  ASDC
54 A  no (1)  PFPR
   bring him back  RQAC
   otherwise he'll @ @ (9)  ASEX
55 G  hey: (4)  ODAG
56 A  catch him  RQAC
   (5) he's hiding  ASDC
   (. ) he's playing hide and seek  ASDC
   (1) look,  ODAG
   look where he's goin'  RQAC

(3) shall I put him back in the cage?  RQSU
   (1.5) um? (3.5)  RQCH
57 G  yeah::. (3)  RSCH
58 A  put him back in the cage  RASK

59 G  what's the time? (4)  RQFR
60 A  he'll come @ @  ASAT
   (1) hey look  ODAG
   he's gone back in now (8)  ASDC
   [pouring out food]
61 A  call him  RQAC
   (2) go on,  RQAC
   play with him  RQAC
62 G/A  ooh!  EXCL
   look what he's doin' (2) [knock knock]  RQAC

63 G  what is this for?  RQFR
64 A  it's to- (1.5) put on the cage to hold it (4)  RSFR
65 G  like this  RQCH
66 A  yeah  RSCH
   (1) like it is on the other side  ASEX
67  G  how is it? (11)  
68  A  what's all this? (1.5) umh?  
69  G  let 'im come out again (3.5)  
70  A  O.K. then  
     let him (noise=2.5) just le- lift it  
     then it'll all come out  
71  G/A  I'll hold @ 'im  
72  G  (laughter=2)(4) 'e's scared (2.5)  
73  A  is he scared?  
     (1) why is he scared?  
74  G  because I am throwin' the @ at it  
75  A  it's only little  
     isn't it? eh?  
     (1) it's only little  
76  G  is he playing hide and seek: again?  
77  A  he is, yeah  
     are you going to play with him? (2)  
78  G  yeah  
79  A  where's he gone?  
     = ah  
     come on  
     come back  
80  G  there 'e: is  
     (3) there: you: are:  
81  A  yes (15)  
     he's coming (2.5)  
     he's coming now  
     (1) look  
82  G  wha'?  
83  A  find Sandy  
84  G  no  
     (1) where is he?  
85  A  under there  
     = see if you can find him  
     (5) can you see him?  
86  G  no  
87  A  he's going @ @ @ @  
     (1) look (.)
look

G where?

RQPR

A @ @ @ @ @ @

UNTPE

90 G der 'e is

RSPPR

91 A where?

RQPR

92 G der

RSCL

93 A can't see him (2)

ASIR

94 G der

RSCL

95 A is he coming?

RQC

96 A/G can't see 'im

ASIR

97 G (3) Dan: dy:

ODAG

98 A tell him to come out

RQAC

99 G come out

RQAC

(1) come out

RQAC

100 A play with me

RQAC

101 G come out

RQAC

and play wi' me

RQAC

102 A oh look

ODAG

he's comin'

ASDC

103 G move dis bag fo' me [moving noise]

RQAC

104 A yeah:

RSCE

move it so that he'll come (1) there

ASEX

105 G Dandy

ODAG

come out

RQAC

106 A that's right (.)

ASEV

pull that @

RQAC

look

ODAG

he's come

ASDC

= no don't move that darlin'

RQAC

107 G can he get out?

RQCH

108 A look

ODAG

there he is

ASDC

109 G I know

RSAK

110 A he can get out, up here

ASEX

(3) come here

RQAC

111 G I'm talking in there

ASEDC

112 A are you?

RSAK

113 G yeah

RSAK

114 A that's your @ @

UNTPE

115 G hello?

ODAG

116 A I don't think it'll talk to you

ASESEX

117 G why?

RQPC

118 A because there isn't anybody inside, is the'

RSPC

it's just something to talk into (.)

ASEX

- 201 -
it's taping your voice (3)  ASEX
119 G  why doesn't somebody go in it  RQPC
120 A  because some' - it's too small  RSFC
and it's not made for people to go in it  ASEX
it's only made for our voices to go into it (4)  ASEX
your daddy's got one of those  ASDC
hasn't he?  RQCH
121 G  my Dad?  RSAK
122 A  um  RSAK
123 G  he has  RSCH
124 A  has he?  RSAK

G & M / im(a) / guinea pig.
Tn  Sp   Utterance  C-act
1  M   Ru::pert::  ODAG
2  G   Ru::pert::  ODAG
3  M   Ru:://pert::  ODAG
4  G   pert::  ODAG
5  M   (.hh) Ru:=  ODAG
I play wi' 'im  PFCL
(laughter=4)
6 d  G   oh::  EXCL
I wanna stroke // 'im  PPFP
7 d  M   I:: // I str'#:  PFCL
8 d  G   I wanna! // stroke 'im  PPFP
9 d  M   stroke 'im =  PFCL
10 d  G   @ @ you won't let me  PPFP
(crying=2) =
11 d  M   @ @ stroke 'im (.hh)  PPFP
↑ [cry with rhythm of 'I wanna']
I wanna stroke 'im (.hh) (3)  PPFP
//ch* (Ωw bΛw) (2)  EXCL
↑ [maybe 'both']
12  G   oh my*  PFCL
Ruperts's mummy (.)  ASID
dis Ruperts's mummy. (laugh=1)  ASID
13  M   it's Rupert's mummy (laugh=1)  ASID
dey all - Ru::pert::  ASID
lightly na onu dekhadi? (2)  RQCH
light or not me see  CAN'T ME SEE THE LIGHT?
onu mara tere  (laugh=2)  ASAT
ME HIT(you) YOURS
mIEnumerable p?ta na i  ASIR
to-me known not  I DON'T KNOW
14 G mm onu c'kugza (laughter=2) ASIR
I HE WILL-PICK-UP
I'M GONNA PICK HIM UP

15 M onu ene marna kh'ch kx ASAT
HE- HE- HIT PULLING nm
HE'S GONNA HIT YOU VERY HARD

G (laughter=2) (3) // (laughter=2) RQPR

G

17 G go bathroom (2)? RQCH
18 M I - I got taken ASEX

19 G we got /l'k/ one = ASID
we got one of them at home (2)
big wheel round it ASDC

20 M can't see it :: (1) ASIR

Rupert, mnh mnh ODAG

21 G r'mber when we saw it on dat day? (3) RQCH
it's good ASEX
i'n't it? RQCH

22 M yeah:

I /z/ look (?)
not play /k/ him RQAC

23 M/G no RSAK
24 M Ru::pert:: ODAG
25 G Ru::pert:: ODAG
26 M go bathroom (2)

27 G I have to look after 'im and stroke 'im = ASRU reports E
28 d M no PFPR
I looking him (1) PFCL
O.K.? (3) RQCH

29 G can I just see all the books? (3) RQPR
30 M that's she book (3) ASID
my books (3) ASID

31 G /ə tru/ (33) UTP
32 G might fall off from der (1) dis t'ing (13) ASEX
what ya got? (9)

[T comes in]
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G</td>
<td>here (1.5)</td>
<td>EXAC</td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>here y'are (2)</td>
<td>EXAC</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>here b2ra // (laugh=2)</td>
<td>EXAC/ODAG</td>
</tr>
</tbody>
</table>

4 | M  | (laugh=1)* here b2ra | EXAC/ODAG |
| 5  | G  | here b2ra | EXAC/ODAG |
| 6  | M  | (laugh=1) | EXAC/ODAG |
| 7  | G  | here b2ra | EXAC/ODAG |
| 8  | M  | (laugh=1) (. ) he got (1) (laugh=1) (2.5) | UNTP |
| 9  | G  | here b2ra: : : : (2) | EXAC/ODAG |
|    |    | here rabbit (2) | EXAC |
|    |    | here (13) | EXAC |
|    |    | b2ra: (6) | ODAG |
|    |    | I jus' (.) | UNTP false start |
|    |    | shall I jus' shave it in? | RQPM |
| 10 | M  | no:: (1.5) | ESCO negative |
|    |    | I'll get it 'gain (2.5) | ASIR |
| 11 | G  | he'll ger it back out (2.5) | ASEX |
|    |    | I tell 'er (.hh) | PFWA |
| 12 | d  | who come back here (1.5) | ASEX |
|    |    | no don't (1) // don't* (1) don't | PFPR |
| 13 | d  | get up* | RQAC |
|    |    | no (1) | PFPR |
| 14 | d  | you fall de down der (2) | ASEX |
|    |    | no (. ) I not falling down (1) | RSAG disagree |
| 15 | d  | you kissin' your girlfriend | PFTE |
| 16 | d  | I /---/ cut your hair | PFTE |
| 17 | d  | is it a girl? | RQCH |
| 18 | d  | no (2) | RSCH |
| 19 | G  | a box (1) | ASID |
|    |    | a father christmas /skwrt/ father // chris- | ASID |
| 20 | G  | he go$ down the chimney (laugh=1) (2) | ASEX |
| 21 | M  | and here's (1) father christ (1) mas= | ASDC |
| 22 | G  | has 'e came here | RQCH |
| 23 | M  | huh? (2) = | ODCQ |
| 24 | G  | father christmas | RSCL |
| 25 | M  | yeah (.hh) | RSCH |
27 G father (.5) /ɪpʃɪnət/  
28 M think e  
FINE

uh? (3)  
29 G/M @ @ @ @ (2)  
30 G press the button (1)  
press the knob (4)  
[RQAC to self]  
[T comes in]

31 M 'e throw the /ˈbɒn bɛts/ =  
DOWN BITS

32 G hello rabbit  
33 M hello rabbit  
34 G hello rabbit  
35 M hello rabbit  
36 G hello rabbit  
37 M hello rabbit  
38 G hello rabbit  
hello speak an' spell rabbit (23)  
e kɔddə lɔida Mampreet? (11)  
THIS WHERE-TO PUT MAMPREET

39 M here (. ) ɔda (1)  
LIKE-THIS

rahnde  
LEAVE

40 G  @ nɔ1 ho gi  
NOT HAPPENING

\ IT'S NOT RIGHT

41 M hello rabbit  
hello rabita (2)  

42 G 'e // can¹ eat your finger (.5)  
den (. ) you //see:

43 M ċ  
/wɛlə ki tɔt ir/ ? (1) /wɛlə ki tɔt ir/ ?  
WHY DON'T YOU PUT IT HERE X 2 maybe

den can't eat it (2)  
no // @  

44 G tʊ ki kɔrda? =  
YOU WHAT DOING

45 M ethe hɔtth lɔunda,  
HERE HAND PUT

dəe uppər (8.5)  
HIGH OVER

nothing  
KUC nɔl @ KUC nɔl @ (1)  
[NOTHING NOTHING]

/bɔnda/? (2)  
MADE

- 205 -
G & R / In / Guinea Pig 2

<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>here Rupert</td>
<td>EXAC</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>Rupert (.5) Rupert (.5) Rupert (.5) Rupert (.5) Rupert (3)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'ere's some more apple (3)</td>
<td>EXAC+ASID</td>
</tr>
<tr>
<td>3</td>
<td>R</td>
<td>'ere's some more apple (1.5)</td>
<td>EXAC+ASID</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>see that (4) I won't throw dat in the cage (3)</td>
<td>ASIR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[T comes in]</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>R</td>
<td>I need some more (5)</td>
<td>ASIR</td>
</tr>
</tbody>
</table>

| 6  | G  | ah (2) der (3.5) | EXCL |
|    |    | apple (.5) apple like deda (15) HAVING-TAKEN GIVE | EXAC |
| 7  | R  | apple @@ khani EAT |  |
|    |    | @ @ @ @ (28) (blowing=4) (5) | UNTP |
| 8  | G/R| huh (4) | EXCL |
|    |    | apple @@ khani | ASDC |
|    |    | (blowing=4) (5) |   |
| 9  | R  | pu' it back (5) | RQAC |
| 10 | G  | hello, hello: (1.5) hello (.5) hello (1) hello (1) tů ki korda va, tů Mampreet bah? (3.5) | ODAG |
|    |    | you what doing aux you Mampreet | RQPR |
| 11 | R  | got some more apples now (1.5) | ASDC |
| 12 | G  | /a/ some crieps, snaps (6) | ASDC |
|    |    | got maybe |   |
|    |    | here | EXAC |
|    |    | ea' a bi' /ti/ NAME OF CRISPS | RQAC |
|    |    | [T comes in] |   |
| 13 | G  | /?/ 'e runs away don't he? (2) (noise=2) (12) | ASDC |
| 14 | G/R| oh ah! (6.5) | EXCL |
| 15 | R  | shall we lift the paint off it? (23.5) | RQSU |
| 16 | G  | 'e won't ea' it ah (laugh=1) (4.5) (sneeze) (8) | ASAT EXCL |

- 206 -
's is your little house: (3) 17 G
'this
's is your little box in house (8.5) 18 R
'This

'eh! (=.5) (8) 19 G
in your little house:. (.hh) 20 R

in your little house:::sie (=2) 21 G
uh! 3
you silly (9) 4

a people (8) 22 G

[T comes in] 23 R

peoples (3) peoples (2) 24 G

s'more UNTP

new p-pen (6)

eh 22 G

[laugh=2] (3) (laugh=1) 23 R

kick] (1) [kick kick] (laugh=2) 24 G

TOOK AWAY BEYOND

Rupert diggda. Rupert diggda. (5) 24 G

FELL
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<th>C-act</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>J</td>
<td>hello</td>
<td>ODAG</td>
</tr>
<tr>
<td>2</td>
<td>N</td>
<td>hello (1)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>how are you?</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>are you fine?</td>
<td>RQCH</td>
</tr>
<tr>
<td>3</td>
<td>J</td>
<td>no (3)</td>
<td>RSCH</td>
</tr>
<tr>
<td>4</td>
<td>N</td>
<td>are you /ə/ well?</td>
<td>RQPR</td>
</tr>
<tr>
<td>5</td>
<td>J</td>
<td>no</td>
<td>RSCH</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(quiet laughter=5)</em></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>N</td>
<td>talk properly now</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>right</td>
<td>RQCH</td>
</tr>
<tr>
<td>7</td>
<td>J</td>
<td>no, no, no</td>
<td>RSCH</td>
</tr>
<tr>
<td>8</td>
<td>N</td>
<td>O.K.</td>
<td>RSAK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I'll stop pl-</td>
<td>ASIR</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(T comes in)</em></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>N</td>
<td>hello,</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>how are you (.hh)</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I'll gi' you something</td>
<td>ASIR</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>erah erah erah erah erah (=1.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*(laugh=2) (.hh) car</td>
<td>ASID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>look</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>car</td>
<td>ASID</td>
</tr>
<tr>
<td>11</td>
<td>N</td>
<td>cars?</td>
<td>RQCH</td>
</tr>
<tr>
<td>12</td>
<td>J</td>
<td>yes</td>
<td>RSCH</td>
</tr>
<tr>
<td>13</td>
<td>N</td>
<td>where?</td>
<td>RQPR</td>
</tr>
<tr>
<td>14</td>
<td>J</td>
<td>/ə/ look (1)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a railway is it?</td>
<td>RQCH</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(laughter=1.5)</em></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>J</td>
<td>got some jigsaw?</td>
<td>RQCH</td>
</tr>
<tr>
<td>16</td>
<td>N</td>
<td>der</td>
<td>ASID</td>
</tr>
<tr>
<td>17</td>
<td>J</td>
<td>eh nah?</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>it is</td>
<td>RSAK</td>
</tr>
<tr>
<td>18</td>
<td>N</td>
<td>jigsawes</td>
<td>RSAK</td>
</tr>
<tr>
<td>19</td>
<td>J</td>
<td>@ // car</td>
<td>ASID</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(T comes in)</em></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>N</td>
<td>'e's come down (7)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hello, hello, hello,</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>why did you come? (2)</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>why d'you come?</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come upstairs (.hh) /w/ in your bedroom (1)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(if you don't come when yer upstairs,)</em></td>
<td></td>
</tr>
</tbody>
</table>
you won't have something to eat (2) ASEX
to eat EXRP
yeah: RSAK

please:
/\ pli d\l̂ g\l̂ d\l̂ / (laughter=3) (2.5) ODPM

*NONSENSE (¬)*

/1/ something to eat UNTP
no @ @ @ @ @ UNTP
(laughter=2)

*NONSENSE (¬)*

/2/ eat .) RQAC
eat it RQAC
no no no no (24) RSCO neg.

who's this? RQPR
/tu marnie/ NONSE

/1/ you got a stink? RQCH
you got a stink /b\l\l\n/?Bomb/
n you got @ @ UNTP

*laugh=1* you got @ @ UNTP

*laugh=1* /t\læn \ don/ (?) NONSE

quack (1) quack quack (laugh=4) (3) PFJO
quack quack (laugh=3)
don't make a joke PPFR

let's talk to him (1) RQSU
d'you want to go upstairs (.) or not? RQCH
(laugh=1.5) upstairs or not? RSAK

/\ln\r\l\l\l:\s\l\l\l:/ (1) ODAG
drink: RQAC
/k\l\l\l:\k\l\l\l\l:er::/ (2) ODAG
drink RQAC
drink RQAC
drink = drink (2) RQAC

- 209 -
43 N wake up (2)
SNORTING NOISES
44 J //qua' qua'*
NOISES
45 N show me Nicki's
show me Nicki's bed (.)
scared
46 J no /b石油化工段/ (6)
RSCO
47 N what we gonna do?: (3)
48 J wanna go to toilet (3)
49 N I know (2)
50 J wanna go to toilet now (7)
/石油化工段/ knock /石油化工段/ (2)
hello: hello: hello: hello: (1)
how are you? (1)
bye bye Jhangir:
51 N bye bye Jhangir:
52 J bye bye Jhangir:
53 N bye bye Jhangir:
bye:
54 J (.hh) wanna toilet now
55 N I wanna go /石油化工段/ toilet (5)
56 J shall we get up?
57 N yeah (3)
58 J go now (2)
59 N down again
60 J no
61 N well, I'm g'- I'm sitting down (2)
62 J /石油化工段/ (1.5)
/石油化工段/ behind us (1.5)
beh?
63 J I'm gonna toilet now (1.5)
64 N don't be cheeky (2)
on the top (4) shall I? (3)
65 J fly: (laughter=4)
66 N he won't fly
good dog

- 210 -
67 J /gə-ıplə/ on the dog ASDC
   A FLY maybe
68 N eh ODAG
   you /wə-/ want that jigsaw? RQCH
   can't see //ple ASIR
69 J @ UNTP
70 N yeah RSAK
   jigsaw puzzle, (.hh) ASID
   puzzles (. ) // puzzles ASID
71 J @ wanna* go toilet ASIR
72 N I want to 'z well (4) ASIR
73 N/J (.hh) toilet go ASIR
74 J I'm going to toilet ASIR
    [J to door]
75 N he's moving (3) ASDC
    shall I put him inside now? (2) RQSU
76 J yeah RSCO
77 N O.K. (4) RSAK
    /kə-ɪɔ ləri/ I can't ASIR
    CAN'T CARRY maybe
78 J can you? (2) RQCH
79 N can't (1) //kə-/ RSCH
80 J /kə-/ (4) UNTP
81 N what should I do? (3) RQPC
    ope- open that RQAC
82 J rabbit (. ) here den (2) EXAC
83 N aaah yah EXCL
84 J close / / RQAC
85 N here you are (3) piece EXAC
   'e put 'im inside: ASDC
   because he=he=he's got some /teilz/ in there (2) ASEX
   hey ( . ) ODAG
   shall we? (. ) shall we? (2) RQSU
76 J look at (. ) that bear RQAC
   can you see?
   // cro*cidile ASID
86 J yes (1) bear RSAK
87 N crocidile (.hh) (1) RSQL
   // I got a jigsaw ASID
88 J / / there* @ he // h-he-*here crack a jack manASID
89 N night, night den /dzəngə/ ODBM
   where crackyjack? RQPR
90 J der RSPR
91 N dat crocodile one? RSAK
92  J  yeah
93  N  which (.hh) dat one /brin won/ der?  RSAK
94  J  no dat (.)
     yeah dat// der  RSAK
     (laugh/**ter=7)  (2)
95  N  /ju poti na poti (1) // na powe/(2)
     nonSense
     (laugh=1)
     how long are we goin' to stay? (3) eh? (2)  RQPR
     h-how long are we gonna stay?  RQPR
     I goin' to toilet=  ASIR
     two hours and five million grams (laugh=1) (2) PFJO
     (noises=1)
     oh look  ODAG
     he's come out (5)  ASDC
     get up  RQAC

J & K / 2m / guinea pig 2

Tn  Sp  Utterance  C-act
(2)
1  K  eat it  RQAC
     (1) eat him (1.5)  RQAC
2  J  eat the (1) apple (.5)
     eat it  RQAC
3  K  apple /tit/ (1)
     eat
     (laugh=.5) (1.5)
4  J  ah ho ho  EXCL
5  K  ahh (2)  EXCL
     erh  EXCL
6  J  erh=
8  K  eh (.5)
     what  EXCL
     bcci e (.hh)
     BABY (?!) IS  ASID
     do not @ @ @ @ @
8  J  tu ki kat?
     YOU & CUT
     you & cut  RQCH
9  K  ko?  ODCQ
     WHAT
10  J  he dinner  ASDC
11  K  eh?  ODCQ
12  J  vgor koi kaide na // @ @ ?
     IF SOMEONE CUT @tag  RQCH
13 K @ k? number? RQPR
14 J aho YES RSCH
/m? ali nan/ kol book e (1) BESIDE IS ASDC
kali e n?i HAVE-CUT NOT ASDC
/vo tue m? p?i:n n utta marit/ = 6 WORDS PUNJABI UNTP
15 K thik (1.5) RIGHT ODBM
16 J now close book (4) RQSU
17 K eee(=1) hello ODAG
18 J (.hh) na (.hh) na he naughty (1) ASEX
but we are (1.5) ASEX
19 K hello: (=.5) ODAG
your apple (4) apple EXAC
20 J /k?l im/ (7.5) CALL HIM maybe UNTP
21 J/K thik RIGHT ODBM
22 K /abi/ (5) BABY ODAG
[I comes in]

(9)
23 K let me giv' 'im RQPM
/la/ cut a piece RQPM
24 d J no (4) RSFO

/la/ kali dolly dolly /t9/ BLACK PFJO
25 d K you you can' cut (4) ASAT
26 J kali dolly dolly /v/ BLACK PFJO
take a bath in me coli (laugh=.5) (3) LAP PFJO

27 J eat it (12) RQAC

/?ormi e: (8) NOT IS ASDC
28 K heater n?i e NOT IS ASEX

mera @ @ e (3) UNTP
MY (this may be maybe) IS uto
29 J heater n?i e (.) NOT IS ASDC
ASEX

EXCL

ASDC

EXCL

EXRP

RQAC

EXAC

ODAG

ASID

ASDC

ASIR

ASDC

J & S / 2a / rabbit

Tn  Sp  Utterance

1  S  what /dip/?
    (laugh=.5)
    /dipt/ 'im back Jhangir (laugh=1.5) (3)
    PUT
    RQAC

2  J  come on
    RAJ  nāi khata /l/ (laugh=1) (6)
    (KHWRPO = RABBIT) NOT EAT
    APPLE KHA TUKHA
    EAT YOU EAT
    RQAC

3  S  how /di/ gonna eat dis one?
    IS HE
    RQFC

4  J  no (.) dat's- (1)
    /id? / dal: (1)
    EAT THE DAL= LENTIL DISH
    RSQL

5  J  gotta eat dal (1.5) /kais/
    CAKES
    ASAT
| 5  | S  | ssh          | UNTP |
| 6  | J  | /ɪtˈbɔːl/   | UNTP |
| 7  | S  | ssh          | UNTP |
| 8  | J  | /ə/ what? (7)| UNTP |
| 9  | S  | Jhangir (10) | ODAG |
| 10 | J  | I'm goin' /ə/ toilet (3.5) | ASIR |
|    |    | I'm goin' toilet |   |
| 11 | S  | that's big   | ASDC |
|    |    | i'nt it      | RQCH |
|    |    | ki jɔl padi? (9) | RQCH |
|    |    | G COVER PUT-ON | |
|    |    | that's ' is /khalit/ (laugh=1) (1) | ASDC |
|    |    | (kha=EAT+EAT maybe) | |
|    |    | hello, 'lo (2) | ODAG |
|    |    | eats you (laugh=1) | PFTE |
|    |    | ooh ooh ooh (=2) (laugh=1) (2) | |
|    |    | ooh ooh eh   | |
|    |    | heh (=2)     | EXCL |
|    |    | elo la la la ( ) | |
| 12 | J  | pələ lo      | } laughs & noises (=8) | |
| 13 | S  | plə lo (laugh=2) | } |
| 14 | J  | plə a lo (3)  | } |
| 15 | d  | /dʌ/ do dis  | RQAC |
|    |    | DON'T        | |
|    |    | because no (1.5) | ASEX |
| 16 | J  | ello:: /bi daːki/ (1) | ODAG |
|    |    | ooh ooh (=2) (1.5) | EXCL |
| 17 | S  | you go-// you go shout a' the rabbit 'ere? | RQCH |
| 18 | J  | ooh#         | EXCL |
|    |    | I go /riːkɔw ʔwə ʔə / (2) | ASIR |
|    |    | REACH CAR OVER THERE maybe | |
| 19 | S  | I know ʔə ʔə (1) cars (2) | ASIR |
|    |    | WHERE THEY PUT maybe | |
|    |    | play wi' car (1) | RQSU |
|    |    | look         | ODAG |
|    |    | car (.5)     | ASID |
|    |    | /ʃə/ car=   | ASID |
|    |    | THAT'S A   | |
| 20 | J  | comin' (5)  | PFWA |
|    |    |                  | |
| 21 | S  | we goin' reach /blə ˈcaːls/ | ASIR |
|    |    | BLACK CARS    | |
| 22 | J  | don' shut 'im back | RQAC |
|    |    | O.K.?         | ODBK |
| 23 | S  | /tʃo ai/ana  | UNTP |
|    |    | COME         | |
| 24 | J  | /pʃələ/ (8)  | UNTP |
|    |    | 'ook (11)    | ODAG |
25 S  Jhangir (1)
you /kəʊfl/ car (10)
push (2)

go to toilet?

26 J  yeah (8)

27 S  /biːtn/ dat's why
I can' see you (3)
I can' (3)

28 J  EATEN or BEATEN

29 J/S /ʃək/ @ @ (6)

30 S  dis not a gir' (3)

31 J  look at /ə pəl/
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>L</td>
<td>that's it</td>
<td>ODBM</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>eh?</td>
<td>ODCQ</td>
</tr>
<tr>
<td>3</td>
<td>L</td>
<td>I see your /suws/ dolly today= SHOES or SUSIE</td>
<td>ASDC</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>these are my new shoes (. )</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I bought them from town</td>
<td>ASDC</td>
</tr>
<tr>
<td>5</td>
<td>L</td>
<td>look (. )</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I got my new shoes: (. ) from town =</td>
<td>ASDC</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>shoes and a /pok (. ) pok/ (2.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FROCK  FROCK</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>L</td>
<td>d'you // think it's* broken?</td>
<td>RQCH</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>(laugh=1)* just // strokin' it</td>
<td>ASDC</td>
</tr>
<tr>
<td>9</td>
<td>L</td>
<td>broken?</td>
<td>RQCH</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
<td>m// my mummy* get this @</td>
<td>ASDC</td>
</tr>
<tr>
<td>11</td>
<td>L</td>
<td>I just strokin'*</td>
<td>ASDC</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
<td>what are ya doin' @? =</td>
<td>RQPR</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>his eyes are big</td>
<td>ASDC</td>
</tr>
<tr>
<td>14</td>
<td>A</td>
<td>yeah (1.5)</td>
<td>RSAK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>L</td>
<td>jus' stroke// 'im</td>
<td>ASDC</td>
</tr>
<tr>
<td>16</td>
<td>A</td>
<td>he's* lookin' a' me (1.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td>17</td>
<td>L</td>
<td>he's talkin' at ya =</td>
<td>ASDC</td>
</tr>
<tr>
<td>18</td>
<td>A/L</td>
<td>me (2)</td>
<td>ASDC</td>
</tr>
<tr>
<td>19</td>
<td>L</td>
<td>he's talkin' to you =</td>
<td>ASDC</td>
</tr>
<tr>
<td>20</td>
<td>A</td>
<td>helloo; (6)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>L</td>
<td>there's a water (.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>look (. )</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>let's /t2w/ in wa-t-er</td>
<td>RQSU</td>
</tr>
<tr>
<td>22</td>
<td>A</td>
<td>I know (. )</td>
<td>RSAK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>L</td>
<td>there's a doll (4)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>where's the dol-ly (.5)</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>A</td>
<td>he's kick-in (8.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gimme (.5) rabbit (. ) lil' bit</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh =2.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td>25</td>
<td>A</td>
<td>yours fell down</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td>A &amp; L</td>
<td>(laughter &amp; squeals=12) (1) (laugh=3) (2)</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ASAT</td>
</tr>
</tbody>
</table>

- 217 -
26 d L /dɔm ki/ dat /bɔ/  
DONT KICK THAT BOX  
(laugh=3) (1) (laugh=2) (2) (laugh=3) (1)  
L I said don't do it (.).
don't do it again (3)  
RSCL

27 A (squeal=1) /bɛz adzɔ/ (1.5)  
(laugh=1)  
d A he- dis /hadzɔ na/ (2)  
HARDER NOW  
'ere goin' to eat you up (.5)  
dat rabbit (.) 'ere goin' to eat you up  
ASAT

28 d L 'ere don't do /dɔwti dɔwti/  
NAUGHTY NAUGHTY

29 A eh?  
(2) /kɔ/ (.) (laugh=1.5) don't give 'im it  
L & A (laugh=4)  
RQAC

30 L I didn't touch his ear wi' (.) dis  
ASDC

31 A my mummy cooks the carrot at home  
ASDC

32 L we do as well (1)  
ASDC

we cook apples as well (.)
and tomatoes (1) in a pan  
(.5) make a dinner /ɔ/  
ASEX

roṭi and c̣̃pɔti (5)  
not roṭi I mean c̣̃pɔti (5)  
ASEX

(roti and c̣̃pɔti are types of bread)  
dat means it talks  
doe'n't it (4.5)  
RQCH

33 d A he'll eat you up (.) /lin/  
LENA

you know dat rabbit  
it'll eat you up  
ODRQ

34 d L beat you up  
ASAT

35 d A no (.)  
RSAG disagree

when 'e comes to me (.)  
'e'll eat you up then 'e comes to you and  
eat you- eats you up  
ASEX

36 d L no he beats you up (.)  
not eat you up (2)  
RSAG disagree

37 d A 'e beats me up (.)  
an' 'e beats you up (1)  
eat  
ASEX

38 d L not eat you up (.) beat you up  
RSAG disagree

39 d A beat you up  
RSAG disagree

40 d L an' 'e'll beat you up  
ASAT

41 A no: 'e don't beat me up and //  
'e don't eat me  
RSAG disagree

42 L that's grass * ya know  
ASID

43 A yes (3)  
RSAX

44 L needs more grass // on  
RQSU
45 A look* (.hh) (1)
      rabbit's got a- (.5) a gun=
      O DAG
      ASDC

46 L there's an apple in there
      ASDC
47 A yeah (1)
      look
      there it is next to:
      ASDC

      - no don't /bə/ // next to
      RQAC
      UNTP
48 L there might* be a little un:
      won't there?
      ASEX
      RQCH
49 A look,
      there was a water here
      /# there /kɔnt ɔ/water (.)
      leave it here
      ASDC
      UNTP
      RQAC
50 L /hah (laugh=.5)*
      I /ɔ/ touched it if you do that (2.5)
      NEVER maybe
      ASEX
      pu' it back here
      RQAC
51 A there's a water (.5)
      ASDC
      no, @ @
      PFFR
52 L she's comin' in,
      she @ a /vizi/t'/
      she @ a /vizi/t'/
      got a VISITOR maybe
      [It comes in]

53 L ooh:
      EXCL

      there's M's Johnson's /sus/ SHOES
      ASDC
      an:sw:er: an:sw:er:
      RQAC
      ODCQ
54 A eh?
      ODAG
55 L there's Ms Johnson's /sus/ (.5)
      Ms Johnson's /sus/
      ASDC

56 A look at 'im (.5) (laugh=2)
      ODAG
57 L 'e's gone to sleep (.)
      i'n't 'e,
      'e's gone to sleep now
      RQCH
      ASAT
58 A he haven't
      because 'e's opened 'is eyes so 'e 'aven't
      RSAG disagree
      ASEX
59 L no (1)
      RSAG disagree
      he's opened his eyes (.)
      ASDC
      now he's goin' to sleep
      ASAT

60 L/A 'e's goin' t' get hit
      ASEX
61 L /kɔ/ carefully (1)
      go maybe
      (laugh + whh whh = 2) (3)
52 A rabbit (.5)
      ODAG
sta' still (2) (laugh=.5) RQAC
63 L don't hit 'im (.)
  don't hit 'is box
  /iz siz/ a rabbit (1)
  THIS IS
  [SONG -1 his box is a rabbit
  'is box is closed
  /her/ was a box (.)) closed:
  (lau//gh=4)
64 A look
  she# comin' now (.)
  she /g2/ (.hh) back in (.7) der
  GONE
  (laugh=2) (4.5) (laugh=9)
  I BROKES my eyes like dat down (.)
  /d@sn/ I?
  DOESN'T
  (laugh=1) (2.5) (laugh=2)
65 L lock (4)
  /etâ'n dînh/ yesterday?
  EATEN DINNER
  RQCH
66 A what was it? RQPR
67 L here RSPR
68 A what was it? RQPR
69 L it was a apple broken from up
  (.7) top 'ere (2)
  RSCL
70 A where ya goin' now? (3) RQPR

L & N / 3m / hamster

Utterance

1 L /na/ through (4.5)
  he's not eatin' apple (7)
  UNTP

WHISPERED CONVERSATION FOR 36 SECS

2 L ethe vic hand pâke (.5)
  HERE IN HAVING-PUT
  pâni pina
  WATER DRINK
  ASDC
3 N kuf nåi kola @ ç@ baby e =
  SOMETHING NOT ALONE IN
  IS
  ASDC
4 L k-ki ms /pasa/ (1) ki ?
  q i SIDE maybe q
  kuf nåi pindi
  ANYTHING NOT DRINK
  SHE'S NOT DRINKING ANYTH
  ASDC
5 N in my hand @
  ASDC
6 L /j]p/ tickle /j9s/
  UNTP
eh?  

8 L pa:ni pi:na  
WATER DRINK  

9 N oh! (3.5)  
/twa/ dat's yours  
YOUR  

10 L kide /de/ vjc (1)  
HOW OF IN  
HOW DID HE GET INT  
o jana  
I HE GO  

11 N enu n3i marna  
HIM NOT HIT  
L/N @@@@ (1.5)  
NOISES (=#) LIKE kwci kwci ku for tickling  

12 N nikkē ji? baby (.5)  
LITTLE em  
nikkē ji? baby vjc jandi pe:; (2.5)  
LITTLE em IN GOING AUX  

13 L m̆k̆el: la: (6)  
(I T'S) COME OUT  
m̆kt̆hu (.) m̆kt̆hu bar ja? (7)  
WHERE-YOU WHERE-YOU OUTSIDE GO  
(k t̆he tu = k thtu)  

14 N m̆kt̆hu (.,hh) bar?  
WHERE-YOU OUT  
t̆u bar m̆k̆el la /h̆ h̆/ (3.5)  
YOU OUT HAS-COME-OUT  


15 L @ @ @ @ (est=4WP)  
<laughter=4> oh (2)  

16 N @ @ @ @ ( est=4WP) (32)  
UNT P  

17 N @ @ @ (est=2WP) m̆kt̆hu bar ja?  
WHERE-YOU OUT GO  

18 L p̆pta n̆pi @ @ @ (est=4WP)  
KNOWN NOT  
t̆u apni @ kholo (3)  
YOU SELF OPEN  

19 N I've only got three things=  
ASDC  

20 d L baţh na khichō bar m̆k̆el  
ARM NOT PULL OUT COME  

21 N only got these=  
ASDC  

22 L he took the /klo/ just (1)  
he's @ @ (est=2WE) te te one two three  
talk to // me  

23 N tū@ @ //@ @  
UNT P  

24 L @ @ @ leave it$  
ASDC  

/tuir kosana/  
UNT P  


talk to little bunny just now=  
ASDC
he's not gonna hear:: ya
this /kɔɔ/ he hears me=
he's not gonna hear ya

abo (.5)

dat's n= (2) dat's not my /fɔ/ can't hear= FALT

@ @ @ (est=2WE) can't hear ya (2)

(blowing=1) take 'im (6)
are you getting better? (1)
me dens (1.5) ASIR
I give
go out naughty
@ @ @ (est=3WP) tu bar jao (2)
you outside go
@ @ (est=2WP) bar jao: (6) @ @ (est=1WP)
outside go

vsc bari gra=
in A-LOT WENT
hah?= slide vsc bari bari gra
in A-LOT-OF (TIMES) WENT
umm car vsc bari gra
in A-LOT WENT
car npi, slide:: NOT (actually a treadmill/roundabout)
umm slide (1)

this mus' slide jækti e na (2)
WRITE AUX QTAG

@ @ @ @ @ @ (est 3WE)

here

hold that rest

um?

hold that
hold this (.) here (.)
dat (.) there

odr npi gra (1)
to-there not went
odr vsc (1)
to-there in
<table>
<thead>
<tr>
<th>Tm</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L/N</td>
<td>yeah</td>
<td>UNTP</td>
</tr>
<tr>
<td>2</td>
<td>L/N</td>
<td>happy birthday (10)</td>
<td>ASDC</td>
</tr>
<tr>
<td>3</td>
<td>L/N</td>
<td>don't like him, do you (4)</td>
<td>RQCH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>@ @ @ @ (15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>for lm 27 secs</td>
<td>UNTP</td>
</tr>
<tr>
<td>4</td>
<td>L/N</td>
<td>sit down</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>from beginning</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>L/N</td>
<td>apple fall down (14)</td>
<td>ASDC</td>
</tr>
<tr>
<td>6</td>
<td>L</td>
<td>eeeh(=2)</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'e's runnin' away (2)</td>
<td>ASDC</td>
</tr>
<tr>
<td>7</td>
<td>N</td>
<td>/Jf 2m 2 ra / (4)</td>
<td>UNTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HALF OF 'EM ARE RED MAYBE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh=3) (2) (laugh=3.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>let me some apple (.hh)</td>
<td>RQPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>put on, on his head (.)/fir b nd/</td>
<td>ASEX</td>
</tr>
<tr>
<td>8</td>
<td>L</td>
<td>/los/ don't eat it (2)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[bang]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>och (=1)</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>you clo'</td>
<td>ASEV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>clap</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>N</td>
<td>/J/ him (2)</td>
<td>UNTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>at</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>L</td>
<td>you-</td>
<td>UNTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>laugh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>eeeh!</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laughs &amp; noises = 8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>laugh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>eeeh!</td>
<td>EXCL</td>
</tr>
<tr>
<td>11</td>
<td>L/N</td>
<td>/oiwmd/ (laugh=4) (2) (laugh=14)</td>
<td>ASRU</td>
</tr>
<tr>
<td>12</td>
<td>L</td>
<td>'s not for you (1)</td>
<td></td>
</tr>
</tbody>
</table>

L & N /3n / guinea pig
teacher name (3)  
you know dat (1) dat other one teacher  
(1) dat (.5) p-girl (.)

she's got /Irn/ (2)  

ONE maybe

you know dat (1) dat other one teacher  

ow! (5)  

I want to go to toll et (4)  
you know I wan' to go to toll et (2)

go now (1.5)  

I'm goin' to go (2)

door's closed (1) @ (5)  

@ put it inside,  
it's a little @ @ @ (1)

I'm givin' this to 'im (2)  

give it to him  

's in there

/\n @ trzt/ (5)  

AND I'LL THROW IT

do open it

@ put it inside,  
it's a little @ @ @ (1)

I'm givin' this to 'im (2)  

when I /t trzt/ dis apple to /a mam/  

/h@l&w prf/  
I'LL THROW IT

/\@\@ \@ \@/  
YOU THROW IT PRB

shall I /trzt/  

[plop] (9)

@ @ @ (9)  

I want to go to toilet

ow! (laugh=1) ow! (laugh=2) ow! (laugh) ow!

(laugh=4) ow! (laugh=2) ow! (laugh=2) aah! (laugh=3)

(laughs & noises total=19)

he's @ @ when he eat it (3.5)  
der 'e eatin'

are ya givin' it some? (4)  

/\/ gotta get mine out (.hh) and get out

I gi' it t' 'im (6)

I give it to 'im (1)
'e don't gettin' some more (4) ASDC
32 N I wan' @ (2) ASIR
33 L uganda /fə/ your food (3) RQAC

NAME? EAT

I'm not tellin' for 'im (3) ASDC
34 N @ shall /ə/ tell 'im? (2) RQPM

I @ @, I put dat in der for 'im ASDC
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
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<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I/A</td>
<td>/bɔ bɔ w/ (4) PUT SOME MORE prod</td>
<td>RQAC</td>
</tr>
<tr>
<td>2</td>
<td>d</td>
<td>A don't give 'im (1) //# don't now (.) no: (.5) no (.5) don't hit 'im# (1) don't (.) don't (1) 'e /pʰ w/ was (.) dat's dead no don't /fʰ k/ (4)</td>
<td>RQAC/FFPR</td>
</tr>
<tr>
<td>3</td>
<td>d</td>
<td>I @ @ (noises=4) dat not for eatin' (.) dat for him</td>
<td>RQAC/FFPR</td>
</tr>
<tr>
<td>4</td>
<td>d</td>
<td>A get /pʰ w/ OFF no= give 'im @ can't eat dis 'e 'ave to give it</td>
<td>PFPR</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>'e's gone in (1.5) /k / (2)</td>
<td>RQAC/FFPR</td>
</tr>
<tr>
<td>6</td>
<td>d</td>
<td>A don't touch 'im</td>
<td>RQAC/FFPR</td>
</tr>
<tr>
<td>7</td>
<td>d</td>
<td>I touch 'im</td>
<td>RQAC</td>
</tr>
<tr>
<td>8</td>
<td>d</td>
<td>A don't @ e'll // get out</td>
<td>ASAT</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>hello (2)</td>
<td>RQAC/FFPR</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
<td>'is // apple's there, 'is apple's* there, 'is apple</td>
<td>ASDC</td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>hello, hello</td>
<td>ASDC</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
<td>/pʰ/eat your apple /bʰ p bʰ p (=1)/ PLEASE don't do it</td>
<td>RQAC</td>
</tr>
<tr>
<td>13</td>
<td>I</td>
<td>are you my friend?</td>
<td>RQCH</td>
</tr>
<tr>
<td>14</td>
<td>A</td>
<td>yeah</td>
<td>RQCH</td>
</tr>
<tr>
<td>15</td>
<td>I</td>
<td>are ya?</td>
<td>RQCH</td>
</tr>
<tr>
<td>16</td>
<td>A</td>
<td>yeah</td>
<td>RQCH</td>
</tr>
<tr>
<td>17</td>
<td>I</td>
<td>oh yeah, can't get that police car (.5)</td>
<td>ASEX</td>
</tr>
</tbody>
</table>
oh yeah, can't get it (3)  EXRP
somebody can get it (1)  ASEX
can't get the car  ASEX

18 A  ya 'ave to get it down the street (1)  RQSU

ah  EXCL

wh- wh- wh- wh-
which shop you bought it?= which shop?  RQPR

20 A  down dat shop,
ya know dat /ma' pri/

21 I  yeah  RQAK
22 A  eh?  ODCQ
23 I  yeah  RQAK
24 A  there  RQAK
25 I  der  RQAK

26 A  my brother /2? i/ for two cars  ASEX
      GOT IT

27 I  I'll /t v f/) get one  ASIR
      HAVE FOR

28 A  I lost // 'em  ASDC
29 I  I'm* gonna tell (.hh) I'm gonna tell
      my (.hh) Dad get me one (1) (.hh)  ASIR

      de- den I'm gonna go to /p'bts'n/
yu you /mip'w pawt/
      MICHAEL POTT maybe
      I'm gonna give /? t/) him
      IT TO

30 A  look  ODAG
      he's bitin'

31 I  /wə bə bə bə bə bə bə bə bə/ (=3)  ASDC
32 A  le' 'im come out (1)  RQSU

      goin' the /waz/ go bite me up  ASAT
5 I  bite me up (.5)  RQAC
33 I  I'll kill ya  ASIR
34 A  no  PFPFR

      ya 'ave t' give 'im dis (6)  RQSU
35 I/A  eh (5)  EXCL

36 I  /taik/ (1) look at these (.)
      key (.) key  RQAC
37 A  eh?  ODCQ
      /'whə zəw/? where d'your (2)
      WHERE YOUR IS
      LOOK AT MAYBE
38 I  /d/ dat key (1) key (.5)  ASID

      window open  ASDC
39 A  oh, yea'
      'e eat it (2)  ODBM
      ASDC
40 I /mə, məp (.) mə (.) mə mə mə
//mə mə (=3.5)/

41 A do it*
( ) up /təw i ə poi/
THROW YOUR APPLE IN maybe

42 I shall I put apple (.) in

43 A yeah, we'd 'ave to

44 I come on (.) come on

45 A no
you first

46 d I you first (.hh)
you cheatin'
eh up!
cheatin'
come on put yours in

47 d A you 'urtin him
HURTING

48 d I put yours in, put yours in. (2)

49 A ah:
no, 'e can't talk first (.hh)
first let (.) teacher come in
and then we 'ave t'

50 d I gimme that apple, gimme that apple
[apple drops]
nah, n' n' n' (6)
  NO NO NO

51 A throw yours in (1.5)
' e's go bite yours (5)

52 I mw təzinu maruŋga, food khaI
I TO-YOU WILL-HIT EAT
I'M GONNA HIT YOU IF YOU DON'T EAT THE FOOD

53 A hey (1)
I touch 'im (3)
aah! (?)
it's stuck (1.5)
come out, come out
/kəwɜrk/ (1.5)
GO WORK maybe
comin' out, it's comin' (6.5)

54 I sit down:

55 A aah! (.5)
can't see

56 I come on: (1)
sit down
look at me (.)
I'm sit down der

57 A get stuck
no can't /swej/
SQUEEZE maybe

can't see (1) d'end @

58 d I sit down
I have to close/drn/ it,

There you are

I pip pip peu-u-//u}

I wait took it

I let's see

I //don't#

when 'e's scared

I @* 'e's scared?

I yeah (2.5)

touch 'im

I 's not /sk-/ (5)

I hello

where /eh wow/ (=2)

I why you scared?

I /s@w/ you scared

I /t@p/ (. ) d@p/ (1)

I look (. ) there

I aah (3)

A/I /h@p/ 'e's there

[ animal scuttering noises]

I & J / 4m / rabbit

I /kel/ pa vi (2) /kel/ pa vi: (7) pa vi: (4)

khol man khol (22)

/tol/ tutte de passe pa, @ passe pa

meri nal pa

etbe na?

hello: (1.5)

hello (3) hello: (2)

hello: =
5 J  hello := ODAG
6 I  hello: (6) hello (9) h e l l o (=2.5) (12.5) ODAG
V. SOFT V. V. SOFT
7 J/I  now @ we cover @ (43) RQSU
8 I  oh (4) EXCL
mera friend e? friend / / m e? (1.5) RQCH

Mampreet mera friend a (2) ASDC
9 J  Mampreet mera friend a
      MY IS
10 I  um?= ODCQ
11 J  Mampreet mera friend a
      MY IS
      othe mera friend koi vi nāi hā (3) ASDC
      THERE MY NO-ONE em NUT IS
12 I  mera bā- friend bān gta (3) ASDC/PFCL
      MY BECAME
      HE'S BECOME MY FRIEND
Mampreet mera friend e (2) ASDC/PFCL
      MY IS
13 J  hāg
      YES
      RSAK

@ @ @ @ @ @ (3.5) UNTP
14 I  /t ik/ (. ) enā bāra food e? (6.5) RQCH
      HOW ARE
      /t ik/ (4) t ik x 9 (=5.5) (5)

15 I  hello
      ODAG
16 J  hello (2.5)
      ODAG
17 I  come on
      ODAG
      hello @ @ @ @
      SILLY VOICE
      (laugh=3)
18 I  @ @ @ @ @ @ maruga tāimu
      SILLY VOICE WILL-HIT TO-YOU
      ASIR
      (laugh=2)
19 J  //le / kār
      UNTP
      DO
20 J  @ @ @ @ @ @ v c k r tu=
      UNTP
      IN DO YOU
21 I  hello (.5) hello
      ODAG
22 J  hello /kārttāra/
      (BECOMES A NAME FOR RABBIT)
      ODAG
23 I  hello (1) /kāl (. ) ho (.) kāl (=2) )
24 J  /korene/ )playing with sounds
25 I  /korene mām (.5) m' cāt (=2)/ )
J  me me mug, me mouth thori thori lake,  ASEX
I  I MOUTH I HAMMER HAMMER HAVING-BROUGHT
meph vi la@ugu  ASIR
nail em WILL-PUT-TOGETHER (h thori = hammer)
I
27 I  hay  RSAG
YES
me thori //ma ma/ lake,  ASEX
I HAMMER ?? HAVING-BROUGHT
kuttung- kuttunga  ASIR
HIT WILL-HIT

28 J  @ @ @ mug mekh lake thori //na @ @  ASEX
I MOUTH NAIL HAVING-BROUGHT HAMMER NO
na  RSAG disagree
NO

.................................
me pani  UNTP interrupted
I WATER
n3i, n3i# n3i, wait (.hh)
NO NO NO
me pani vali gun lake,  ASEX
I WATER-KIND-OF-GUN HAVING-BROUGHT
pani vic pake phn! phn! kارूङ:ga::=  ASIR
WATER IN HAVING-PUT BANG BANG WILL-DO

30 J  me (.hh) me (.hh) sui cupni  ASDC
I I NEEDLE SUCK
fer pani nika aja
THEN WATER CAME-OUT
31 I  me (.hh) me sui lake (.hh)  ASEX
I I NEEDLE HAVING-BROUGHT
pani ml@unga (.) kun ga un ga  ASEX
WATER WILL-COME-OUT (SOUNDS)
[ sui is probably the nozzle on the drinking bottle]
.................................
J/I  (laugh=1) (4)
32 /7/ slowly  ASDC
33 J  /5/ lowly (5.5)  RSAK
34 I /velo  pelo  pelo  pe/=5 (2)  NONSENSE
35 J  oh! no g'  EXCL
36 I  brili (1.5) rabbit=  ODAG
   CAT
37 J  jist6 tu k6l k6la siga  RQAC
LIKE YOU YESTERDAY SAID PAST-AUX(ER)
SAY IT LIKE YOU SAID IT BEFORE
(laugh=1) hello // @  ODAG
38 I  rabia=  ASDS
   RABBIT
39 J  n3i=  RSAK negative
   NO
40 I  rabbit=  ASDS
41 J  n3i=  RSAK negative
   NO

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42 I rabbit ASID
43 J nái // nái nái RSAK negative
44 I rabbit# ASID
45 J nái nái RSAK negative
tú kiss kár enu tú enu kiss kár you kiss do to-him you to-him kiss do
hello kórcirá Tá kae RQSU
NAME THIS DO
(laugh=1)
46 I hello: /márapátapata/ (.hh) ODAG
hello rabbit ODAG
47 J hello, kórcirá (laugh =3.5) ODAG
48 I a dekh () a dekh () a dekh () ODAG
THIS LOOK THIS LOOK THIS LOOK
50 I go on RQAC
51 J enu marda ASDC
MIM HIT
ahh! EXCL
/tolí/ ba gi (4) UNTP
52 J/I /b:: a:: u:: h::/= (4.5) ui HAPPENING
53 J máníu dëndë vaddhë= ASDC
to-me teeth hit
me bit me
54 I oohi (2.5) EXCL
55 J hello // kórcirá ODAG
56 I oohi# oohi ooh oh (=4) EXCL
57 J started (3) ASDC
58 I oohi oohi (=2) EXCL
59 J hello kórcirá ODAG (laugh=2)
60 J/I oohi x 7 (=5) EXCL
61 J hello kórcirá ODAG
ha bëut vëddi ha: ASDC
on very big is
edë bëut: vëddi / aa/
THIS-MUCH A-LOT BIG IS + HAGA-AUX# ASDC
62 I e sanu mar sikdi ha?
IT US HIT ABLE-TO IS
RSCH
no
nái (#) done vëddde ASEX
we both big (p)
me (.hh) me vëddde shoe pëe ñë (1.5) ASEX
i 1 BIG(p) WONE LIKE-THIS
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63 J tere vōdé sige? (2) RQCH
YOUR SHOES WERE (PAST AUXES)
WERE YOUR SHOES BIG

tere ede vadde sige? (2) RQCH
YOUR THIS-MUCH BIG WAS (em) [showing with hands]

64 I he might bite (. ) and ik size
ONE
AND ONE SIZE
(. ) and ik size (. ) ñe upper e (2) ASAT
LIKE-THE ABOVE IS
AND ONE SIZE ON TOP OF THAT [DEMONSTRATING]

65 J oop! EXCL
66 J here //here EXAC
67 J enu meri thori nal ASIR
TO-HIM MY HAMMER WITH

mar dena muñ phēn dena is tārā ASIR
HIT GIVE MOUTH SHASH-UP JUST-LIKE-THIS

68 I bā, thori vi nal ( . ) muñ RSAX
YES HAMMER EM WITH MOUTH
/pph muñ da/ ( =3) (11)
LOUD NOISES

69 J hello kēcira ODAG
70 I hello kēcira @ @ @ @ @ @ // ODAG
NONSENSE=

71 J hello kēcira (1) (laugh=2) ODAG
72 I mē maruŋga, mē maruŋga ASIR
I WILL-HIT I WILL-HIT
kēcira: kēcira!

73 J kēcira enu mar kēcira, mēnu mar kēcira RQAC
TO-HIM HIT TO-ME HIT

74 I kēcira mēnu na mari RQAC
TO-ME NOT HIT
mē nice ê (. hh)
I ASEX
ēnu mari
TO-HIM HIT

75 J kēcira kīse nu nāi mari, RQAC
TO-NO-ONE NOT HIT
kēcira

76 I kīse nu, ēnu mari, ēnu mari RQAC
TO-NO-ONE TO-HIM HIT TO-HIM HIT

77 J hello kēcira ODAG
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S</td>
<td>y'av 'im</td>
<td>RQSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>YOU HAVE HIM</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>S/I</td>
<td>'ere</td>
<td>EXAC</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>no eatin' (.5)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dat /m'n fri @/</td>
<td>UTP</td>
</tr>
<tr>
<td>4</td>
<td>S</td>
<td>eh?</td>
<td>ODCQ</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>ho!</td>
<td>EXCL</td>
</tr>
<tr>
<td>6</td>
<td>S</td>
<td>here (. ) here (3)</td>
<td>EXAC</td>
</tr>
<tr>
<td>I&amp;S</td>
<td>(laugh=2.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>S</td>
<td>give 'im it (1) give 'im it: (1)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>go on (. )</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>give 'im it (. ) give 'im it</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>crying (2.5)</td>
<td>ASEV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'ere</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh=2) (3) (laugh=2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>'e's a bit ( . ) /ru/</td>
<td>ASEV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh=3)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I</td>
<td>eh!</td>
<td>EXCL</td>
</tr>
<tr>
<td>9</td>
<td>S</td>
<td>you hit with dat ha-hand (1)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here (.5) here (. 5) here</td>
<td>EXAC</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>no don't: (1) don't (2)</td>
<td>PFPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here:re (=1)</td>
<td>EXAC</td>
</tr>
<tr>
<td>11</td>
<td>S</td>
<td>(laugh=2) here (3)</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>you 'ave it now (2)</td>
<td>RQSU</td>
</tr>
<tr>
<td>12</td>
<td>I</td>
<td>/səhtil/ (1)</td>
<td>UTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>oh no</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I'm not goin' (2)</td>
<td>ASIR</td>
</tr>
<tr>
<td>13</td>
<td>S</td>
<td>quack! (2)</td>
<td>PFJO</td>
</tr>
<tr>
<td>14</td>
<td>I</td>
<td>eh?</td>
<td>ODCQ</td>
</tr>
<tr>
<td>15</td>
<td>S</td>
<td>/sp silz/</td>
<td>UTP</td>
</tr>
<tr>
<td>16</td>
<td>I</td>
<td>(laugh=1) go' /ə/ lil' /vit/</td>
<td>ASDC</td>
</tr>
<tr>
<td>17</td>
<td>S</td>
<td>here (.5)</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eat your grass</td>
<td>RQAC</td>
</tr>
<tr>
<td>18</td>
<td>I</td>
<td>I'm not goin'</td>
<td>ASIR</td>
</tr>
<tr>
<td>19</td>
<td>d</td>
<td>S</td>
<td>why? (3)</td>
</tr>
<tr>
<td>20</td>
<td>d</td>
<td>I</td>
<td>alright' (4.5)</td>
</tr>
</tbody>
</table>
ah you! [plop] (2) PFPR
21 S /ku 'bɔ/ GOOD BOY or GO BACK UNTP
you give 'im (. ) RQAC
you 'aven't gi: m any (1.5) ASDC/PFPR
given him
22 d I here (. ) here (. ) here (. ) here (3 noises with lips=2) EXAC

23 S here (. ) here (. ) here (. ) here give 'im (. ) RQAC
you 'aven't gi: m any (1.5) ASDC/PFPR
GIVEN HIM
24 I I like de wheel, wheel ASIR
[singing+] turning of the: wheel:1 ASDC
25 d S dat not wheel RSAK neg.
26 d I yeah RSAG disagree
[singing+] wheel /ðədʒə/ ON THE BUS

27 S here* (2 noises with lips =1)
(5) here (5 noises with lips =2.5) (5) EXAC
here (1 noise)=
28 I oh! EXCL

big long ASDC
29 S eh? ODCQ
30 I big long ASDC

31 S eh? ODCQ
I&S (laugh=3)

32 S he run round ASDC
33 I round and round (3) EXRP

he got big ball thing ASDC
34 S hmm yeah RSAG

(7 noises with lips=4.5)
S don't you do it RQAC
(. ) here (.5) here (6 noises=2.5) (2) EXAC
(5 noises=3) (9)
35 I it's a wheel (2) ASID
36 S /bən ˈdʒɔl/ (3.5) UNTP
eat it (. ) all (. ) eat it RQAC

37 I eh? ODCQ
38 S eat it RQAC
39 I no: I don't [plop] RSCO negative

40 S here (3 noises=2) (1) here (4) EXAC
41 S/I don't want it ASAT
don't want it EXRP
42 I don't want it EXRP

shall we /ˈtrɔː/ it in de bin? (2) RQSU

- 235 -
43 S eh? (.5) eh? ODCQ
44 I shall we /trəw/ it in de bin? RQSU

45 S which bin? RQPC
46 I bin RSCL
47 S no (2) RSCH

/kutəz/ riding (16) (noise with//lips =4) UNTP

48 I come on QUICK HE'S maybe
where's -# UNTP
eat it! RQAC
49 S eat it!# EXRP
50 I eat!= RQAC
51 S eat! EXRP
52 d I ger off! RQAC
53 d S ger off! (4) EXRP
he eat mine ASDC/ASAT
/kəp kəs kəs kəs/ (2) (laugh=2)
NOISES (= 4.5)

54 I eat it! eat it! RQAC

55 S here, EXAC
big /fʊn/ (.hh) dis FULL
here (.5) RQAC
full dis EXAC
56 I I've fulled dis (.)
57 S owhi ASDC
yeah full (9) ASDC
/də/ full as dis one

58 I eh? ODCQ
59 S /də/ finished it (3) ASDC
60 I come on: RQAC
61 S come on bast BROTHER RQAC
62 I come bast pi pi BROTHER DRINK DRINK RQAC
bast //kha kha
BROTHER EAT EAT RQAC
63 S kha kha kha RQAC
64 I bast pi pi (2) BROTHER DRINK DRINK RQAC

I don't like 'im /miə/

65 S eh? ODCQ
66 I no I don't like it /miə/ RSCL neut.
67 S why? RQPC
68 I no good (1) /ʃp/ (2) RSPC

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69 S  she /ə/  UNTP
- give 'er er apple  RQAC fem.
70 I  apple (4 noises with lips=2) (15)  EXRP
(laugh=4) (1 noise) (2)
  d I  get off  PPFR
71 d S  ger off  PPFR

72 d I  I'm not your friend now  ASIR
73 S  please?  ODPM/RQAC
74 d I  no  RSCO
75 S  please?  ODPM/RQAC
76 d I  no  RSCO
77 d S  please? (5)  ODPM/RQAC
  I won't be your friend den (3)  ASIR

(laugh=2.5) (4)
78 d I  ger off! (.)  PPFR
  you finish /əl/ (.)  ASDC
  aren't you? (7)  EQCH
79 d S  ger off  PPFR
80 d I  ger off  PPFR
  // not# your friend  ASIR
81 d S  ger off  PPFR
  go on,
  bite /ə/ (. ) bite /ə/ ( . ) friend  RQAC
  (.5) bite your friend  RQAC
82 d I  I'm not your friend  ASIR
83 d S  bite your friend  RQAC
  (.5) here (3 noises with lips=1.5)  EXAC
84 I  pussy cat (9.5)  ASID
85 S  here  EXAC
86 d I  no (. )  PPFR
  it's my side (4)  ASDC

87 d S  I'm gonna tell of you now  ASIR
88 I  who?  RQPR
89 d S  Mrs Johnson (2) Miss /terwəl/  RSPC
  I'm goin' t' (2)  RSPC
90 I  (hh) alright  RSPC

give it food den (. ) give 'im food  RQAC
91 S  here (2 noises with lips=1)
  (2.5) here (. ) here (2.5)  EXAC
92 I  food (. ) food (. )
  eat your food (. ) eat your food,
  eat your food (1) eat your food  RQAC
93 S  eat your food (2)  RQAC
  (laugh=2) (5)
94 I  here (2)  EXAC
95 S  cooch (=1) (2)  EXCL
  /ə/ want to stay here (1)  ASIR
don't
  nobody gonna come (2)  ASEX
  cooch (=1) (3) cooch (=1) (4)
<table>
<thead>
<tr>
<th>Line</th>
<th>Speaker</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>I</td>
<td>hhhh</td>
</tr>
<tr>
<td>97</td>
<td>S</td>
<td>here y'are (2 noises with lips=2) (2.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on (7.5)</td>
</tr>
<tr>
<td>98</td>
<td>I</td>
<td>come on (.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eat it (.) eat it</td>
</tr>
<tr>
<td>99</td>
<td>S</td>
<td>eat it (6)</td>
</tr>
</tbody>
</table>

- EXCL
- EXAC
- RQAC
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>N</td>
<td>d&amp;h little (1) pick up da' (.) rabbit</td>
<td>ASID</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>'e jus' bites @</td>
<td>RQAC</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>let's get some food for him</td>
<td>ODAG</td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>dis (.) here</td>
<td>ASAT</td>
</tr>
<tr>
<td>5</td>
<td>N</td>
<td>dis (1.5) here (.5) here (1) // dis</td>
<td>RQSU</td>
</tr>
<tr>
<td>6</td>
<td>E</td>
<td>@</td>
<td>EXAC</td>
</tr>
<tr>
<td>7</td>
<td>N</td>
<td>no don't put it there (.5) get that out (4)</td>
<td>EXRP</td>
</tr>
<tr>
<td>8</td>
<td>E</td>
<td>here</td>
<td>RQAC</td>
</tr>
<tr>
<td>9</td>
<td>N</td>
<td>get that out (.5)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>he eats something (3.5)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on, come on (3) eat // something</td>
<td>FFPR</td>
</tr>
<tr>
<td>10</td>
<td>E</td>
<td>come on</td>
<td>RQAC</td>
</tr>
<tr>
<td>11</td>
<td>N</td>
<td>come on (.5) 'ere</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>get some food @ for 'im put it here</td>
<td>RQAC</td>
</tr>
<tr>
<td>12</td>
<td>E</td>
<td>where?</td>
<td>RQAC</td>
</tr>
<tr>
<td>13</td>
<td>N</td>
<td>come on, come on (1) some @ @ @ @ (.5)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>get some food @ for 'im put it here</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eat // something</td>
<td>RQAC</td>
</tr>
<tr>
<td>14</td>
<td>E</td>
<td>one piece</td>
<td>RQAC</td>
</tr>
<tr>
<td>15</td>
<td>N</td>
<td>why one piece?</td>
<td>RQAC</td>
</tr>
<tr>
<td>16</td>
<td>E</td>
<td>one piece (.) one piece</td>
<td>RQAC</td>
</tr>
<tr>
<td>17</td>
<td>N</td>
<td>this (.) there</td>
<td>RQAC</td>
</tr>
<tr>
<td>18</td>
<td>E</td>
<td>eh?</td>
<td>RQAC</td>
</tr>
<tr>
<td>19</td>
<td>N</td>
<td>no more, no more, only one (.) piece</td>
<td>RQAC</td>
</tr>
<tr>
<td>20</td>
<td>E</td>
<td>/h&amp;(.) d&amp;h (.) k&amp;r (.) heh (.) n&amp;h/ NONSENSE TO RABBIT</td>
<td>RQAC</td>
</tr>
<tr>
<td>21</td>
<td>N</td>
<td>one piece</td>
<td>RQAC</td>
</tr>
<tr>
<td>22</td>
<td>E</td>
<td>n&amp;w (.) was (.) @ @ (.) k&amp;r (.) // @ @ @ @ [knocked microphone]*</td>
<td>RQAC</td>
</tr>
<tr>
<td>23</td>
<td>N</td>
<td>shall we close it?</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1) close it @ (.) so 'e can't get in</td>
<td>RQAC</td>
</tr>
<tr>
<td>24</td>
<td>E</td>
<td>d&amp;h (1.5)</td>
<td>RQAC</td>
</tr>
</tbody>
</table>
come on (3)                    RQAC
[bangs cage]                  
25  N  bites (2.5)            PFWA
    goin' bite /2/            ASAT
26  E  (laugh=1) (1) (laugh=1) (2.5)  

is- is 'e eatin'?              RQCH
27  N  no 'e isn't (.5)       RSCH

it opens                      ASDC
28  E  you put (.) you put your hand in there RQSU
29  N  you put it // in, you put it in*  RQAC
30  E  where (. ) where = where*  RQPR

nah                            RSCO  negative
31  N  are you scared? (1)    RQCH
    'e won't bite yer (1.5)    ASAT
32  E  @ bites                 RSAG  disagree
33  N  won't be able to bite yer
    ( . ) it's only a lil' rabbit (1)  ASEX
    der                        EXAC

34  E  it's @ now              ASDC
35  N  he won't bite (. ) he won't bite /əli/  ASAT

    (. ) he's @ bite (1)        ASAT
    sit // here                RQAC
36  E  @                        UTP

37  N  here                    EXRP
38  E  where?                  RQPR

eh!                            EXCL
39  N  he ca- he won't bite (. )  ASAT
    he's only a little rabbit  ASEX
40  E  /əh əh/                 UTP
41  N  ssh!                    EXCL

[sound quality deteriorates]

W & E / 5X(b) / hamster 2

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<th>Utterance</th>
<th>C-act</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>N</td>
<td>@ /ə/ bit (2)</td>
<td>UTP</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>hah!</td>
<td>EXCL</td>
</tr>
</tbody>
</table>

    my scared den                  ASIR
3  N  I not scared (5)            ASIR
dis cup

4 E you my (. ) @

5 N I put yours here
eat yours (3)
(laugh=2)

6 E 'e's scared

7 N @ my mum

8 E your mum /kəpi/

9 N @ @ @ @ @ @ eeh! )

10 E /iz fəh ih ih ih / ) NONSENSE TO HAMSTER (-7)

11 N @ @ 'e all gobbled it all up

12 E /əwε/ NOISE

13 N he won't eat /ɪə ɔwl / (3)

@ @ a big box

14 E it's a big box=

15 N box, a pretty big // box=
[corrects pronunciation]

16 E los'@ I /nəws kə/ (1.5)
Lest NO CARE maybe

17 N birthday cake

18 E don't ( . ) /mə/
(4 claps=2) (2)

19 N a birthday cake (.5)
a birthday cake der

20 E /pi- su/
FIÉCES (TO ANIMAL)

21 N you pu' it in for yourself (. )
hey? (1.5)

22 E /pəm um um /=1)

23 N I'll pu' it in fo' 'im

24 E owh!

25 N he won't hear ( . )

put it in like this (.5)

26 E der (laugh=2)

27 N @ @ @ @ @ # over there
(laughter=11)*

28 N what's this @
(2) (laughter)# (2)

29 E pussy cat (laugh=2)

30 N pussy cat (3)

31 E 'sey cat

32 N /swəngi wəngi/ )

33 E /swi/ ) (NONSENSE=5)

34 N /wəngi swəngiswəngi // swəngi )

35 E /swəngi/ (1.5) )
will you turn that about?  

36 N I'll turn it round for you  

(nois//es=5)

37 E yeah!

* yeah into your house

38 N yes /kw[tʃ]/ (. ) you do it.

round and round the /sɪr/

40 N/E no (.5) don't go @ it, rabbit (6)

41 N oh (1)

you do it (1)

let's do that (. )

put 'ere left hand (. ) there (.5)

won't eat ya'  

42 E 'e /midz/ (5)

43 N he's not a pussy cat (1)

44 E //no

45 N I'll* tell you where to st'  

46 E @ @ rabbit (2)

47 N he's not

48 E @ it to you (1)

49 N yeah (1) I your friend (4)

50 E /rəː빗/ rabbit, rabbit

51 N 'e's not a rabbit

52 E come on (2)

pick it up (1)

(whispering=6)

[ipa]
'ere ya'are

owh!: EXCL

53 N won't eat ya ASAT

54 E (laugh=1.5) 'e eat it (1)
  a::h!(1) EXCL
  'e's /twd/ UNTP
  (laugh=3)

55 d N I'm @ your @ (. ) I'm not your friend ASIR

56 E yeah RSAG disagree

57 d N no:: RSAG disagree

58 E are you friend (. ) @ rabbit? RQCH

(1) no friend? (.5)
  oh::=

59 N sit down (2.5) RQAC

let's go to sleep
  eh? (.5) eh?

60 E yes (2) RSCH

N/E (snoring noises=5)

61 N 'ere rabbit (. ) go to sleep RQAC
  (snoring noises=6)

62 d N/E shut up (4.5) FFPFR

63 N once upon a time (1)
  right? ASDC

64 E wwh! EXCL

65 N once upon a time der's three /dw /
  and you /d v/ to up to /lid sənd (. ) ASDC

I 3r/ are you /lida/?

66 E no (. ) yeah LEADEN

67 N 're ya in there
  come on
  get leader /tw x 7/ =2.5
  're you leader?

68 E yeah!

69 d N no RE'AG disagree

70 E yeah:

71 N you're Noreen /d -dəli/
  aren't ya?

72 E yeah (1) (noise=1)

73 N no RE'AG disagree

74 E I got @
\( /\text{ziz/} \text{ shoes, it is pumps} \)

\text{STRESSED 1st part of sentence negative RSAG disagree} \\
\text{RSAG disagree}

75  N  /ponc/?/ \\
     \text{pumps} \hspace{1cm} \text{RSAK}

76  E  /pon pumor/ \\
     \text{PUMPS} \hspace{1cm} \text{RSAK}

77  N  /\wedge\text{ tru cuj/} \\
     \text{NONSENSE (-2.5)}

78.  E  I got // some pumps at home* \hspace{1cm} \text{ASDC}

79  N  /pom pom twj cuj/ (=2.5)(=4)* \\
     \text{NONSENSE }

\textit{N & A / 5m/ guinea pig}

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<tr>
<th>Tn</th>
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</table>
| 1  | N  | hello rabbit \hspace{1cm} \text{ODAG}  \\
    |    | /\text{dns ir/} \hspace{1cm} \text{EXAC}  |

2  A  he's dat nice one (1.5) \hspace{1cm} \text{ASDC}

he got black (.hh) \hspace{1cm} \text{ASDC}

and (.5) he likes me \hspace{1cm} \text{ASAT}

he got // black and- \hspace{1cm} \text{ASDC}

3  d  N  he saw me*(.hh) \hspace{1cm} \text{ASDC}

he'll he'll get ya \hspace{1cm} \text{PFWA}

he saw me (.hh) \hspace{1cm} \text{ASDC}

he's not frightened of me (. ) \hspace{1cm} \text{ASAT}

he's frightened of you \hspace{1cm} \text{ASAT}

(.hh) look \hspace{1cm} \text{ODAG}

a lil' bit /\wedge/ water \hspace{1cm} \text{EXAC}

4  A  don't \hspace{1cm} \text{PFPR}

5  N  little bit /\wedge/ water (.) \hspace{1cm} \text{EXAC}

little rabbit (.hh) \hspace{1cm} \text{ODAG}

I saw him \hspace{1cm} \text{ASDC}

he's [knocks microphone 4 secs unintelligible]

6  d  N  /\text{dnt/} matter Asha (1.5) \hspace{1cm} \text{ASEV}

\text{DOESN'T}

7  A  are you like it? \hspace{1cm} \text{RQCH}

some grass in there \hspace{1cm} \text{ASDC}

8  d  N  I know (.5) some grass (.) \hspace{1cm} \text{RSAK}

it /\text{dnt/} matter Asha (2) \hspace{1cm} \text{ASEV}

\text{DOESN'T}

9  A  will I take thi' grass out (.) there (12) \hspace{1cm} \text{RQPM}

10 d  N  he's frightened of you // Asha \hspace{1cm} \text{ASAT}
11 A who /ʃot/ that dolly
SHOT may been BROKE

12 N I know (. ) I looked a' it (1)

I'm wishin' my // nice rabbit

13 A who /ʃot/ that# dolly

14 N I know (1) I looked at it

(1.5) oh, look at dem cri'ps

15 A eh?

16 N look at dem cri'ps(.)
can ya see 'em?

17 A yeah

18 N I could (.5)

19 A come on (.)
rabbit nice (. ) chuckie

20 N oh oh oh /əm/ ah ab oh oh (=4)

21 A he went in that box

22 d N ah /ə tʃ/ w/ better.

23 A no:

24 N oh (. )

25 A don't put the pɔt'ta (.5) back in

26 N he's sorry (1)

27 d A you can't do it

28 N I could

29 A you?

30 N yeah // @

31 A yes*
I could do my brooch (3)
brooch prob.

I'll do it myself

you like do your birthday? (hh) Asha
I do your birthday?
shall I do yours?

(laugh=1) (1) // get

happy birthday to rabbit (laugh=2)

happy birthday to Andrew (hh)
happy birthday to you (.) and you (hh)

is that

she called (.) and

no (1) and // (2)

/ . (2)

when / (.) d'your birthday' get tha' (hh) and do de happy birthday
d'you wanna sharpen @ @

no (1) and // 2 2 (2)

/ . (2)

/ . (2)

/ . (2)

/ . (2)

(get)

just 'ad that @ @ (1)

aqua 3 auk (3) ASIR

my ball (.hh) my bubble's come off, ASEX

WHEN

ASIR

RSQSU

ASIR

PFJO

EXRP

RSAG disagree

RSAK negative

NAME

NAME

ASRCU ref. to cake

ASRU

RQCH

EXCL

PFJO

UNTAP

PFJO

UNTAP
<p>| | | | |</p>
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</thead>
</table>
| 55 | N | (laugh=1) (.hh) ger up | PFWA
| 56 | N | hello // guinea pig | ODAG
| 57 | A | hello | ODAG
| 58 | N | careful: (1) careful guinea pig= | PFWA
| 59 | A | careful guinea pig | RSAD
| 60 | N | /ɔ ɔ/ tell miss | ASIR
| 61 | A | /ɔ/ tell miss | RSAK
| 62 | N | /ɔ/ d'you tell miss as well | ASDC
| 63 | A | get a' (noises=2) | RQAC
| 64 | N | pu' it there (1.5) pu' it there | RQAC
|   |   | (1.5) don't go then guinea pig | RQAC
|   |   | ah rabbit: | ODAG
|   |   | don't be too silly (.hh) will you? | RQCH
|   |   | (laugh=2) (coughs & noises=3) | RQCH
| 65 | N | don't// | PPFR
| 66 | A | 'e's goin' t' eat it (.5) | ASAT
|   |   | get on | RQAC
|   |   | (laugh=2) | RQAC
| 67 | A | he won't hurt (.5) he won't hurt (.5) he won't hurt you (noises=2) | ASAT

**N & T / 5n / rabbit**

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<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N</td>
<td>he can't get /mɔ/- his milk</td>
<td>ASAT</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>oh (?)</td>
<td>EXCL</td>
</tr>
<tr>
<td>3</td>
<td>N/T</td>
<td>/fɔr/</td>
<td>ASDC</td>
</tr>
<tr>
<td>4</td>
<td>N</td>
<td>/nɔtɪ rɔb/ milk (2)</td>
<td>RQPR</td>
</tr>
<tr>
<td>5</td>
<td>T</td>
<td>wha' dat? wha' dat? (2)</td>
<td>RQPR</td>
</tr>
<tr>
<td>6</td>
<td>N</td>
<td>/ɔv/ you bite your finger?</td>
<td>RQCH</td>
</tr>
<tr>
<td>7</td>
<td>T</td>
<td>no</td>
<td>RSCH</td>
</tr>
</tbody>
</table>

**Tn**  
**Sp**  
**Utterance**  
**C-act**
SHALL I PUT IT FOR HIM maybe

you mustn't do that (2) ASRU
eat it now (2) RQAC
don't give 'im no more (.hh) RQAC
give 'im a big bi- RQAC
you can take it ASAT
no RSAG disagree
let 'im 'ave it (3) RQSU

9 T ahh: EXCL
' e's onl- UNTP
I'll do dat (1.5) ASIR

10 N take it RQAC

11 T there's talk and (.5) ASID
yeah (.hh) // he# likes talk ASAT
12 N you# you /s/ talk an' me as well (.) RQSU
// we both talk RQSU
13 T I'm not# talkin' ASIR

'cause 'e (.hh) er.. 'e don't like me ASEX
14 N he does RSAG
15 T he /dənt/ ASAG negative
doesn't RSAG
16 N he /dzɔ/ ASAG
does RSAG
17 T /dænt/ ASAG
doesn't RSAG
18 N he does (1) RSAG

it don't matter ASEV
it's a nice rabbit (.hh) ASEV
we saw dis rabbit befo' (.5) ASDC
stroke 'im RQAC
'e won't /hɪʃt/ ya (. ) won't /hɪʃt/ ya EAT prod EAT prod
I stroked 'im (. ) ASDC
didn't I? RQCH
's a nice rabbit (. ) ASEX
isn't it? RQCH

19 T /pli/ sit down ODPM/RQAC
PLEASE

20 N no RSCO negative
stand up (1) RQAC

no: (=1) (. ) don't (2) PPFR
a little piece of /pəl/? (2.5) RQCH
APPLE
der (1) EXAC
come 'ere (3) RQAC
'ere milk ASDC

21 T 's /ə/ stuck (6) ASID
got don't @ @ @ @ UNTP
(2) here

(2) 'e don't want any

does 'e?

22 N no

23 T 'e likes me

24 N 'e likes me

25 T yeah

26 N 'e do (1)

're won't /hi t/ ya (1)

's only little (.5) rabbit (5.5)

27 T you gi' to 'im

28 N no don't /t/ worry

29 T ge' it back (1) get it back (4)

30 N like 'im?

31 T /ret (. ) (1.5)?

32 N owh

33 T yeah

34 N why did you give 'im it? (1.5)

35 T in der (.)

36 N dis 'en?= like dat (.)

37 T I 'ave

38 N hey!

39 T look at 'im (.) look

40 N/T a little bit more (.) yours

41 N come 'ere /pwhh/=1 (5)

42 N come 'ere /pwhh/=1 (5)

43 N 'e won't come 'ere (6)

A PARTICIPLE

(1) didn't bite dis apple (.)

- 249 -
44 T no 

45 N I didn't /2/ bite /2/ i' up (1.5) 

46 T I like to sit here

47 N dat fo' a ca'? FOR A CAT

48 N/T I do (2)

49 T /3/ is same as your /jump3/ JUMPER = ASDC

50 N yeah=

51 T my my mummy's got m-dat

52 N baby?

53 T yeah

54 N my mummy's got a /bakin/ one BAKING = ASDC

55 T I'm stroke 'im ASDC

an' 'e don't like me ASAT

56 N he do: 

RSAG disagree

come on (. ) you come 'ere (. ) RQAC

// you can do dat ASAT

get your other apple* RQAC

57 T I never @ @ gettin' one* ASIR

here ya // are EXAC

58 N you* get your other apple (. ) get your other apple (. ) get your other apple= RQAC

59 T here y'are EXAC

you put this on 'im RQAC

60 N der (.5) EXAC

shall we put @ @ there RQSU

it won't be too much @ (3) ASEX

61 T what's dis? (5) RQPR

62 N don't know dis? ASIR

(2) I // don't @ dis ASIR

63 T what is dis* RQPR

64 N oop! EXCL
careful (3) PFWA

there: EXAC

65 T @ @ @ box UNTP

66 N /hai/ NOISE

67 T oh EXCL

fell down again ASDC
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<tbody>
<tr>
<td>68</td>
<td>N</td>
<td>dust it up (.5)</td>
<td>EQAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I /? 9/ do it</td>
<td>ASRU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>N/T</td>
<td>hello hello (6)</td>
<td>ODAG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tn</td>
<td>Sp</td>
<td>Utterance</td>
<td>C-act</td>
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<td>----</td>
<td>----</td>
<td>-----------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>M</td>
<td>you (1.5) away // @ @</td>
<td>UNTP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>@ @ he's eatin'</td>
<td>ASDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>what?</td>
<td>ODCQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>he's eatin' one of them (1.5) oh! he gets some there</td>
<td>ASDC EXCL ASDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>oh gawd!</td>
<td>EXCL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>he's he's eatin' /wi now / WE KNOW maybe</td>
<td>ASDC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

/\WB WB/ look look /\k/ look
he's eatin' dat (1.5) | ASDC |

7 | M | /\p \m\n d\k/ | UNTP |
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<tbody>
<tr>
<td></td>
<td></td>
<td>they'll eat 'im</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>won't they (.5)</td>
<td>RQCH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>put 'im there (.</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'ello (1)</td>
<td>ODAG</td>
</tr>
</tbody>
</table>

8 | M/A | see /\ d\f/ (3.5) | UNTP |
| 9 | A  | oh! | EXCL |
| 10 | M  | don't throw it at it (2.5) | RQAC |
|    |    | come on (3) | RQAC |
|    |    | a mouse /d\f/ (3) | ASID |

THERE OR MOUSEDA (see later) |

11 | A  | eh? (2) | ODCQ |
| 12 | M  | are you here? (5) | RQCH |

13 | M  | 'ere 'ere:/ /e e/ | EXAC |
|    |    | 'ere 'ere 'ere 'ere 'ere | |
| 14 | A  | oh: look | ODAG |
|    |    | he's eatin' it (.) | ASDC |
|    |    | /a/ HERE Y'ARE maybe | UNTP |
|    |    | you give it to 'im? | RQCH |

15 | M  | he won't bite | ASAT |
| 16 | A  | 'e won't | RSAK |
| 17 | M  | 'e won't (3) | RSAK |

18 | A  | open it (2.5) | RQAC |
| 19 | M  | big | ASDC |

20 | A  | get that out | RQAC |
| 21 | M  | where? (3.5) | RQPR |

22 | A  | will ya stroke 'im (5) stroke 'im (.) faster (.) | RQSU |
|    |    | d-don't stroke 'im | RQAC |
|    |    | he'll bite (4) | ASEX |
| 23 | M  | what is it? (8) | RQPR |
O.K. (1) (hh . hh) (9)  
'ey loo' (.5)  

(laugh=.5) 'e's goin' into there  
(.) oh loo',  
'e's gone.  
there 'e is (.5) (laugh=2)  
'e's near the paper (. )  

my water's gettin'  

aah(=1) /sə p/ (2)  

let ya walk  
// hello (1.5)  

@* look  

open de doo' @ @  

how is?  

not yet (6)  

look someone coming (1)  
I go (.5)  

ahhh  

where?= where?  
(2) @ @ (1) ahh  

what's dat?  

what's dat?  

look (1)  

what is (.) what is it? what's dat?  

a /mʌstə/  
MOUSETER(cross between mouse & hamster)  
a /mʌstə/  

'te bites  

@ 'e talk (3.5)  

there's a cup  

where?  

there's a cup  

there's cups  

/ə/ //cups?  
cups (1)  

get in trouble (5)
47 A (laugh=1) 'e got it ASDC
48 M gi' me it (2) RQAC
der ya are= EXAC
der 'e is (. ) ASDC
' e won't bite. ASAT

...........................................................................................................
/ge/ it yours GIVE
...........................................................................................................
/2ri up/ HURRY
...........................................................................................................
49 A why? RQPC
50 M 'e might be ea' it (1) today ASEX

.............................................................................................................
'(laugh=1) 'ello (1) ODAG
.............................................................................................................
'e might be ea' /midd/ MINE

.............................................................................................................
( . ) won't ya? (2) RQCH
51 A /i mi/ (1) // take * a-another one ASAT

.............................................................................................................
he eat it all= ASDC
.............................................................................................................
54 M awh gawd (. ) oh (. ) (. hh) EXCL
.............................................................................................................
'e's come back there. ASDC
oh you! (. 5) @ @ = EXCL

.............................................................................................................
55 A /o ? where's 'is carrot? RQPR
56 M here's my (. ) ASDC
there's /m i-t/ carrot, MINE

.............................................................................................................
57 A wait* (. ) RQAC
where's my carrot? where's my carrot? RQPR

.............................................................................................................
(2) (laugh=.5) (4) rock 'im RQAC
(laugh=1)

.............................................................................................................
58 M gimme /fers/ PIECE or FACE
I hit 'im on it (laugh=2) (2) ASDC

.............................................................................................................
59 A break a bit RQAC
60 M O.K. RSCO
here EXAC
61 A O.K. (2) RSAK

.............................................................................................................
wake 'im RQAC
/ // * go on (. ) (hh) go on RQAC
M (laugh=1)* (laugh=2)
62  A  'er  EXAC
    THERE
63  M  //ger 'im  RQAC
64  A  cow (=.5) (2)  EXCL

65  M  g-get the carrot  RQAC
       hurry up  RQAC
66  A  // where?*  RQPR
67  M  @ @ * der (2.5)  ESPR
       ger it?  RQCH

68  A  /w@ e/ will bites /@/  UNTP
       /i/ (.) go in there  RQAC
          HERE
       won't le' me stroke (1.5)  ASAT
69  M  (..hh:) ger out (.) // ger out  RQAC

70  A  kill 'im* kill 'im (5)  RQAC
71  M  you's kill 'im  PFVA
72  A  eh?  ODCQ
73  M  you's kill 'im.
       don't kill 'im really (3)  RQAC

M and D / 6m / rabbit

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<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
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<tbody>
<tr>
<td>1</td>
<td>D</td>
<td>'lo</td>
<td>ODAG</td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>hello (2)</td>
<td>ODAG</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>here (3)</td>
<td>EXAC</td>
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<tr>
<td></td>
<td></td>
<td>ya like that (.)</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'ere (2)</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'e's tellin' me bite (.)</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>look</td>
<td>ODAG</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>no (3)</td>
<td>RSAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>talk</td>
<td>RQAC</td>
</tr>
<tr>
<td>5</td>
<td>D</td>
<td>it a rabbit</td>
<td>AS1D</td>
</tr>
</tbody>
</table>

| 6  | M  | no (.)  | PPFR |
|    |    | don't open it | RQAC |
|    |    | (. ) bite ya (1) bite ya | PFVA |
| 7  | D  | you know? | RQCH |
| 8  | M  | no (.hh) | RSAG disagree |
|    |    | it's onl' lil' one (.) it won't - | ASEX |
|    |    | ya 'av to stroke a lil' one (.hh) | ASRU |
|    |    | you /d@wn/ big one? eh? | ODRQ |
|    |    | he bites (1) | ASAT |
|    |    | he /d@t/ bites 's one (3) | ASAT |

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9 d  D  labbit  ODAG
10 M  rabbit  ODAG
11 D  //rabbit# (.5) look (1) look (8) ODAG
12 M  //tk tk
13 D  /dʔk dʔk/ (1.5)
14 M  'e in /bʔf/ (laugh=1)
   BATH
15 D  he bitin'
16 M  ooh: (1)
17 M  'e's coming (1)
18 M  ooh
19 M  gone
20 d  M  look (.5)
21 d  D  'ere (2) 'ere labbit (2) 'ere rabbit (3)
22 M  owh: (3) owh: (2)
23 D  alright now (.)
24 M  i'n it? (12)
25 D  labbit (.5) labbit (.5) rabbit
     (1) labbit
     (1) /kən tsi tɔtli lit/ (6)
     ENGLISH but INCOMP.
     look (.5) rabbit (2)
     small piece /d ət/ (7.5)
     OF THAT
26 M  gimme that one (11.5)
27 D  won't bite (2)
28 M  no (7)
29 D  it's coming (.5)
   it's a rabbit
   he got de /bǝt/ BATH
30 M  /bʔf/ (1.5)
31 D  wwh, he said wwh (15)
32 M  he bite me last night
he never bite me (2) ASDC
he // bite me ASDC/PFCL
he @ @ der UNTP
he gonna bite me (. ) mi' be (2) ASAT
me @ dat table @ (1) // we ca'
we /k@t@tir/ (3) UNTP CAN OR CAN'T PUT IT THERE maybe
he CO @ der ................. UNTP
he gonna bite me (. ) mil be (2) ASAT
MIGHT
we ca' UNTP
we ca UNTP
we ca' UNTP
we ca UNTP
hello (1)
wh! wh! ooh! (=3)
M/D carrot (8) ASID
'y'are (8) EXAC
rabbit (1) // rabbit (1) r'
RQAC
come here come# here=
RQAC
awh! (2) EXCL
/d@ hir/
UNTPE
( . hh ) @ @ UNTP
no RSCCH
/ / d'you go /r@d a/? RQSU LIKE THAT
no RSCO
/4/ go to // toilet
me ASIR
rabbit# (. ) rabbit (1) rabbit (. ) rabbit ODAG
owh EXCL
rabbit rabbit (7) ODAG
ahh:
EXCL
I'm gonna tell 'er (.5) ASIR
tell 'er (.5) teacher ASIR
where? (11) RQPR
I'm goin' fo' some water ASIR
M & B / 6n / guinea pig

M gone (. ) gone ASDC
B go on /kwli/ RQAC
ta ta (2 shouts=1) ODBM
goodbye prop (4) come on (1.5) RQAC
he's gone ASDC
\[3\text{ M cownh (.5)}\]
\[4\text{ M 'e (.) 'e comin' eat it (.) He's coming to eat it}\]
\[d'ya want some? (1) RQCH\]
\[are ya gettin' some? (.5) RQCH\]
\[get some (3) RQAC\]
\[won' bite (2 squeals & laugh=2) (3.5) ASAT\]
\[5\text{ B is a // @ @ UTP}\]
\[6\text{ B cuh EXCL}\]
\[7\text{ B got got // @ @ UTP}\]
\[8\text{ I stand up (1) (noise & squeal=2) ASIR}\]
\[9\text{ B (laugh=1)}\]
\[8\text{ M stand up (4.5) RQAC}\]
\[9\text{ B wooh (1.5) EXCL}\]

\[/kws/ bitin' (1.5) ASDC\]
\[look who's or who 'e's yeah RSAK\]
\[8\text{ M 'e's bitin' apple ASDC}\]

\[11\text{ B wwh! wwh! (=1.5) (5) @ @ EXCL}\]
\[12\text{ M 'e's eatin' // 'em ASDC}\]
\[B (sq*seal=1 squeal=2) (3.5) erh= ASDC\]

\[13\text{ M big coffee (.) ASDC}\]
\[big cup /@/ coffee ASDC\]
\[14\text{ B eh? ODCQ}\]
\[15\text{ M coffee RSCl}\]

\[16\text{ B back, get /alwás/ back (3) RQAC}\]

\[17\text{ M don't touch now (1) RQAC}\]
\[can' touch now ASRU\]
\[18\text{ B O.K. RSAK}\]

\[19\text{ M hello ODAG}\]
\[20\text{ B hello ODAG}\]
\[you done it? RQCH\]
\[21\text{ M eeh(=1) (1) EXCL}\]
\[didn't bite ASDC\]
\[22\text{ B no /@p/ UTP}\]
\[23\text{ M /jw/ go vela/ (2.5) UTP}\]
\[do you wanna go like that maybe [animal scutters=1] saw it ? (1) RQCH\]
\[/d@/ it's nice ASEV\]
\[blowing=1]\n
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<th>Line</th>
<th>Character</th>
<th>Dialogue</th>
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<tr>
<td>24</td>
<td>B</td>
<td>go on</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[blowing=2]</td>
<td></td>
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<td>there's who (3)</td>
<td>ASID</td>
</tr>
<tr>
<td>25</td>
<td>M</td>
<td>oh</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'e's lovely</td>
<td>ASEV</td>
</tr>
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<td>i'n' he? (17)</td>
<td>RQCH</td>
</tr>
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<td>26</td>
<td>B</td>
<td>kaddor gæ (6)</td>
<td>RQPR</td>
</tr>
<tr>
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<td>WHERE TO WENT</td>
<td></td>
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<tr>
<td>27</td>
<td>M</td>
<td>don't touch now (.)</td>
<td>RQAC</td>
</tr>
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<td></td>
<td></td>
<td>'e's dead now (2)</td>
<td>ASEX</td>
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<td></td>
<td>owh</td>
<td>EXCL</td>
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<td></td>
<td>'s gone (1) ASDC</td>
<td></td>
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<td>ghost i'n 'e? (3)</td>
<td>ASEX+RQCH</td>
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<td>ISN'T ME</td>
<td></td>
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<tr>
<td>29</td>
<td>M</td>
<td>der's some more</td>
<td>ASDC</td>
</tr>
<tr>
<td>30</td>
<td>B</td>
<td>eh? (16)</td>
<td>ODCQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/bi dês fØd ruk/ 'e's bitin'</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BY THIS SIDE LOOK maybe</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>M</td>
<td>ch</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>come on, come on RQAC</td>
<td></td>
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<td></td>
<td></td>
<td>'e's bitin' (16) ASDC</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>B</td>
<td>'e's /Ø/ bitin' (.) me</td>
<td>ASDC</td>
</tr>
<tr>
<td>33</td>
<td>M</td>
<td>no, 'e's not bitin' (5)</td>
<td>RSAC disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASDC</td>
<td></td>
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<tr>
<td>34</td>
<td>B/I</td>
<td>get dis one @ @ @ (2)</td>
<td>RQAC</td>
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<tr>
<td></td>
<td></td>
<td>IF YOU CAN maybe</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>B</td>
<td>'e's there</td>
<td>ASDC</td>
</tr>
<tr>
<td>36</td>
<td>M</td>
<td>wwh! wwh! (=1) (2) wwh! wwh! (=1)</td>
<td>EXCL</td>
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<tr>
<td></td>
<td></td>
<td>coh (=.5) (squeal=2)</td>
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<tr>
<td>37</td>
<td>B</td>
<td>comin' cut</td>
<td>ASDC</td>
</tr>
<tr>
<td>38</td>
<td>M</td>
<td>wwh (=.5) (squeal=1) wwh wwh (=1)</td>
<td>EXCL</td>
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<tr>
<td>39</td>
<td>B</td>
<td>wwh</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'e's // comin'</td>
<td>ASDC</td>
</tr>
<tr>
<td>40</td>
<td>M</td>
<td>coh(=1)</td>
<td>EXCL</td>
</tr>
<tr>
<td>41</td>
<td>B</td>
<td>no</td>
<td>PPFR</td>
</tr>
<tr>
<td></td>
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<td>come on</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>no (1)</td>
<td>PPFR</td>
</tr>
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<td>42</td>
<td>M</td>
<td>coh (2)</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>you do it</td>
<td>RQAC</td>
</tr>
<tr>
<td>43</td>
<td>B</td>
<td>@ @ @</td>
<td>UNTP</td>
</tr>
<tr>
<td>44</td>
<td>M</td>
<td>wwh wwh wwh (=1)</td>
<td>EXCL</td>
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<td>he's comin' /Ø khØ/ [bang] ASDC</td>
<td></td>
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<td></td>
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<td>/hØ hØ/ it's coffee (3)</td>
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<th>Sp</th>
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<td>1</td>
<td>A</td>
<td>what 'e's doin'? (2)</td>
<td>RQPR</td>
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<td>G</td>
<td>look (2)</td>
<td>ODAG</td>
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<td>3</td>
<td>A</td>
<td>'ere (.5)</td>
<td>EXAC</td>
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<td>here you open that (2)</td>
<td></td>
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<td>here open that</td>
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<tr>
<td>4</td>
<td>G</td>
<td>can't pu' it in</td>
<td>ASIR</td>
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<td>5</td>
<td>A</td>
<td>ah?</td>
<td>ODCQ</td>
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<td>6</td>
<td>G</td>
<td>can't pu' it</td>
<td>ASIR</td>
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<td>7</td>
<td>A</td>
<td>'e's a girl</td>
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<td>G</td>
<td>he? (1)</td>
<td>RSAK</td>
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<td>'at's a girl? (2) 'at's a //girl?</td>
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<td>eh?</td>
<td>ODCQ</td>
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<td>G</td>
<td>/a/ go like 'at (1)</td>
<td>JUST</td>
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<td>look (.hh)</td>
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<td>what she doin'? (2)</td>
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<td>11</td>
<td>G/A</td>
<td>@ @ @ (5) /his/ (noise=.5)</td>
<td>UNTP</td>
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<td>12</td>
<td>G</td>
<td>hee (noise=.5)</td>
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<td>A</td>
<td>wha' you doin'? (5.5)</td>
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<td>14</td>
<td>A/G</td>
<td>hey hey (1.5)</td>
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<td>ya open up der</td>
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<td></td>
<td>hoi (. ) /p s n/ (.hh)</td>
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<td>where are ya goin'? (20)</td>
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<td>15</td>
<td>G</td>
<td>'e gonna 'ave little arms</td>
<td>ASEX</td>
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<td>16</td>
<td>A</td>
<td>yeah</td>
<td>RSAK</td>
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<tr>
<td>17</td>
<td>G</td>
<td>look (.5) what 'e's doin'? (.5)</td>
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<td>aah(=1)</td>
<td>EXCL</td>
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<td>18</td>
<td>G</td>
<td>(laugh=1.5) (2) (laugh=.5)</td>
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<td>can ya see a blue ball?</td>
<td>RQCH</td>
</tr>
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<td>19</td>
<td>G</td>
<td>hey</td>
<td>ODCQ</td>
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<tr>
<td>20</td>
<td>A</td>
<td>what? (2)</td>
<td></td>
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<tr>
<td>21</td>
<td>G</td>
<td>I- I'm /a fa/</td>
<td>ASDC</td>
</tr>
<tr>
<td>22</td>
<td>A</td>
<td>where's /fa/?</td>
<td></td>
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<tr>
<td></td>
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<td>(looking at number line prob.)</td>
<td>RQPR</td>
</tr>
<tr>
<td>23</td>
<td>G</td>
<td>don't know</td>
<td>RSFR</td>
</tr>
<tr>
<td>24</td>
<td>A</td>
<td>where's nine? (2)</td>
<td>RQPR</td>
</tr>
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<td></td>
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<td>where's //six? (2.5)</td>
<td>RQPR</td>
</tr>
<tr>
<td>25</td>
<td>G</td>
<td>@ @</td>
<td>UNTP</td>
</tr>
<tr>
<td>26</td>
<td>A</td>
<td>and where's: (1) where's eight? (2)</td>
<td>RQPR</td>
</tr>
<tr>
<td>27</td>
<td>G</td>
<td>don't know (2.5)</td>
<td>RSPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>five (2)</td>
<td>ASID</td>
</tr>
</tbody>
</table>
28  A what's that number?  RQPR

29  A will 'e bite? (2.5)  RQCH
ch: 'e's goin /∅/ bite (.5)  ASAT
to
look (.5)
he's climbing (6.5)  ODAG

30  G come on (.)
don't do dat  RQAC

31  A @ can we stop 'im? (.5)  RQPC
HOW maybe
does it (.?) stop 'im (1) does it? (4)  RQCH

(laugh=1) (4)

32  d G /h / 'im hit no (.)
no don't (1.5) don't do it (22)  PPFPFR
wait' (1.5) wait'
wait
stop it (2.5) (laugh=.5)
wait' (.)

33  A (.hh) (1) get back (2)
ah! (6)
d'ya pu' it like dat? (2) [knocks micro.]  RQAC

34  A dat's /səʊdəl/ show. Saturday show (1)
SUNDAY
Saturday show dat (1)  ASID

/ʤ ʃən ʤ/ (noises=2)=

35  G look der (2) (.hh) (2)  ODAG
36  A what 'e's doin'?  RQPR
37  G eh?  ODCQ
38  A what 'e's doin'?  RQPR
39  G she's cleanin' 'er (.5) a /mʊp/ (2)  RSPFR
40  A she's bathin'?  RQCH
// oh  EXCL
41  G yeah! (1)  RSCH
she's bathin' (6)  RSCH

42  A (laugh=1) (.) 'e don't likes dat (2)  ASAT
(nonsense=4) (3.5) /ʤɔ wɪd/ drink (3.5)  UNTP

ROUND WITH maybe

(blowing =5 ) (2)
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<td>1</td>
<td>D</td>
<td>ethe na rakh</td>
<td>RQAC</td>
</tr>
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MESS  

14 G krddar / da khada le/ (3)  
TO-WHERE  
@ @ @ @ @ a  
EST 3WP  

15 D @ @ @ @ @ (2)  
UNTP  

ah (.) ah (.) eeh:  
TO-WHERE  
YOU CALLING AUX  

16 G ma ma enu p2ļũu  
I I TO-HIM WILL-CAUSE-TO-DRINK NOW  
hom  
ASIR  

17 d D nəi (.) nəi  
NO NO  
me hom pəļũ (3.5)  
I NOW WILL-CAUSE-TO-DRINK  
ASIR  

18 d G nəi (2)  
PFPR  

19 D beccray nu dade (.)  
CHILDREN TO<pp) GIVE  
enu pätte dene (1) enu pätte dene  
TO-HIM LEAVES GIVE TO-HIM LEAVES GIVE  
RFAC  

20 G here (.) here rabbit (26)  
EXAC  

21 D ma bəda kərta  
I CLOSE DO  

22 d G nəi  
PFPR  

khulla rəhnde (1)  
OPEN REMAIN  
RFAC  

23 G @ @ (5) /ə  new i ə ka/ (2)  
YOU KNOW & THAT CAR MAYBE  
UNTP  

24 D hə tu  
I HIM WHERE PUT  

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25 D 'ere (1) 'ere
26 G hello (3)
27 D /a/ dekh 'ne ki kita (2)
28 G too late to stayin' in bed
29 D /e bək ə n/ der
30 G eh: (7)
31 D ms othe (5)

32 G bitin' (4)
33 D meithā telly nū kārdī (3)
34 G /tek/ @ @ (7)
35 D 'ere y'are (12)
36 G khol (1.5)
37 D eh eh /ləbit /(/ .hh)
38 G e khā lāggīa (.hh) (.5) (.hh) @ @ (6)
39 D @ othe rākhde
40 G @ @ @ (4)
41 d D @ na @ @ (8)

(5)

EXAC
ODAG
RQAC+ASDC
ASEV
UNTP
EXCL
ASIR
ASDC
RQAC
UNTP
EXAC
RQPR
UNTP
ASDC
RQPR
ODAG
ASDC
UNTP
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EXCL
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T & S / 9M / rabbit

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</tr>
<tr>
<td>10</td>
<td>S</td>
<td>T</td>
<td>ja en' 'och khatia /h?/ (9)</td>
<td>RQCH</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>OR HE SOMETHING HAS-EATEN</td>
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<td></td>
<td></td>
<td></td>
<td>COULD HE HAVE EATEN SOMETHING</td>
<td>ASDC</td>
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<tr>
<td></td>
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<td>/e im at it/ (8.5)</td>
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<td>HIM ATE IT PROD</td>
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<tr>
<td>11</td>
<td>T</td>
<td>S</td>
<td>how me driangi (3)</td>
<td>ASIR</td>
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<td></td>
<td>NOW I WILL-GIVE</td>
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<tr>
<td>12</td>
<td>S</td>
<td>T</td>
<td>@ eda na ki a? (2.5)</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>HIS NAME WHAT IS</td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td>eda rahnde (4)</td>
<td>RQAC</td>
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<tr>
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<td>HIS LEAVE</td>
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<td>13</td>
<td>T/S</td>
<td>T</td>
<td>ahh (=.5) (2)</td>
<td>EXCL</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>S</td>
<td>bocca</td>
<td>ASID</td>
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<td></td>
<td></td>
<td></td>
<td>LITTLE-BOY</td>
<td></td>
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<tr>
<td>15</td>
<td>S</td>
<td>T</td>
<td>/jlo/ me dardi n (2)</td>
<td>ASIR</td>
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<tr>
<td></td>
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<td></td>
<td>I SCARED AM</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>T</td>
<td>S</td>
<td>eda kor</td>
<td>RQAC</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>HIS D0</td>
<td></td>
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<td></td>
<td></td>
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<td>(coughing =4)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>S</td>
<td>T</td>
<td>ah! (9)</td>
<td>EXCL</td>
</tr>
<tr>
<td>18</td>
<td>S</td>
<td>T</td>
<td>pani pina /f3 da tu/</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
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<td>WATER DRINK</td>
<td></td>
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</tbody>
</table>
19 T @@ deda deda UHTP
20 S /na die/ UNTP
21 T um? ODCQ
22 S e e e e e e UNTP
23 T eat your dinner (.5) RQAC
   he wants 'is dinner ASAT
24 S eat RQAC
25 T come on
   dinner ODAG
   pila pila pi
   DRINK DRINK DRINK RQAC
26 S pi
   DRINK RQAC
27 T dinner (.5) ODAG
   eat it RQAC
   no PFFR
28 S oh EXCL
   /s/ dinner nəi khanda (2)
   NOT EATING ASDC
29 S/T e e e e e e (6) UNTP
30 T tində goi ASDC
   TOILET SHE-HAS-GONE
31 S tələtə kətthe e?
   TOILET WHERE IS RQPR
32 T oh EXCL
   tənu nəi pəta?
   TO-YOU NOT KNOWN RQCH
   twiŋ kərna?
   YOU DO RQCH
33 S nəi
   NO
   ma nikkı kərna @ @ ASDC
   I SMALL DO
   tū nəi kərna
   YOU NOT DO ASAT
   pph @ @ nikkı // nikkı @
   SMALL SMALL UDAG
34 T eat it RQAC
35 S na (1) /nəkk/ RSCO negative
   NO (ne kha= NOT EAT)
36 T apple dəd ASID
   MILK
37 S o pinda nəi
   HE DRINKING NOT ASDC

- 268 -
ki karda e? (1.5) RQPR
WHAT DOING(m) AUX

/apple drink drink (1.5)

S/T me dendi ̀ (.) RQAC
I GIVING AUX

38 T la/ lọ, 
TAKE TAKE

/le/ khanda homba
THIS EAT (habitual)
THIS IS WHAT HE EATS

39 S @ @ @ @ (13) UNTP

40 T hun/ vuh/ khanda
NOW HE EATING

/le/ ndi pani @ pina
PN. NOT WATER DRINK

/rəbde/ (4) RQAC
(remde= LEAVE IT prob)

41 S not dis /d k l (.) mani c w/ (2) UNTP

42 d T kickin' (2) ASDC
keep ya feet der (2.5)

43 S you do it (8.5) RQAC

44 T no (.,hh) (2) PPFR
o khan' /logbi a/ hana
HE EAT HAS-STARTED-TO Q tag

/lə daw/ (2) UNTP
SHALL I DO maybe

45 T/S ah ah (3) EXCL

46 S me disdia @ pani
I TELL WATER
SHALL I TELL HER ABOUT THE WATER

47 T/S @ I've got a sweet hana

0 desk corrow @ @ ASDC

48 T/S @ @ @ @ (laugh=3) (4) (laugh=1) UNTP

49 S @ @ @ RQSU
(assile 'Jinder=LET'S GO TAJINDER prob)

50 T /ci/ (1.5) NOISE
T 51 S ethe aja (6)
HERE COME

52 T /kukola/ baby
NAME
S (laugh=2)

53 T hən apəg ki kəri
NOW WE WHAT DO
NOW WHAT SHALL WE DO

54 S mə pani dedə (.5)
I WATER GIVE
dede
GIVE IT

55 T @ @
UNTIP

56 d S um (2)
UNTIP

57 d T na (3)
UNTIP

58 S no ~
UNTIP

59 T e tə phər
IT FROM HOLD
eat it
unt
NO

51 T RQAC

T & M / 9m / guinea pig

<table>
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<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
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<tr>
<td>1</td>
<td>M</td>
<td>ethe</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HERE</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>kətthe?</td>
<td>RQPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WHERE</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>ethe (2.5)</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HERE</td>
<td></td>
</tr>
</tbody>
</table>

(laugh=17)

M @ @ @// @
WHERE DOES HE @ prob
RQPR
M @@ If (laughter=19) IS SCARED myw. 4 T aja (2) aja (6) COME COME a le IT TAKE mm pani padi hum ede (1) water putting now (on) him hum ede /pəteəni/ (1) now (on) him ? a le IT TAKE hor padi e (1) more putting aux hor nai (2) more no e pais? THIS SHALL-WE-PUT

5 T/M ah (1.5) EXCL 6 T // come 'ere /ə/ (. ) (laugh=1.5) rabbit (6.5) // ah (?) /aɪ/ aja (2) COME mardi e# HITTING aux she is hitting (laugh=1?)

7 M mardi e# HITTING aux she is hitting (laugh=1?)
8 T dekh dekh LOOK LOOK

9 M apaq dekhie book /əjɪ/ WE LET'S-SEE
10 T nai RSCO negative

/apait/ book /əjɪ/ UNT

11 M /tɜːni tea anī/ tū kādon jauggi? RQPR /tū kādon jauggi? WHEN WILL-SIT
t you when will-go

12 T ja bodde (1.5) PFJO go old-man

13 M na // cukoo PFJO
14 T /ba/ come si' down (1) /ba/ come si' down (1) SISTER sit down girl (1) sit down Manjeet RQAC T/M uh NOISE

T sit down der (1) RQAC

now d'you want tea? (2) @ RQCH

15 M I bought dat story ASCD

it- it's called de birthda' ASCD

- 271 -
M/T  I took @ @ (7)  UNTP
M  where's the dinner?  RQPR
16  T  ye:s (2)  RSAK

17  M  // @ @
     CAN HAVE IT prob  UNTP
     look in der, can we? (3)  RQCH
19  M  it's more (.) it's it's /sk9nd/ ASDC
     CANNED
20  T  ahhh(=2.5)  EXCL
21  M  and you can open dat other one (5)  RQSU
22  T  ahhh (=1.5)  //@ @ ah*hh(=1.5)  EXCL
23  M  I got a /lelest/>/ (1.5)  ASDC
24  T  ohh(=1) (.5)  EXCL
     where is dat dog? (.5) dog  RQPR
25  M  look (.)
     you 'ave some, some some panf
     WATER

26  T  he he hide der (1) he hide der  ASDC
27  M  yeah  RSAK

     I put some (.5)
     I put dat on 'is so 'e can't // come out  ASEX
28  d  T  /3*/ 3/9r/# naughty girl  ASEP
29  M  ehh(=1)  EXCL
30  d  T  sit down now (4)  RQAC
31  M  where've I seen dis one?
     I put a=  UNTP
32  d  T  sit down on your bottom (1)
     like dat (4)  RQAC

     now do dat (2)  RQAC
33  d  M  /ke/
     CAN'T  RSCO
34  d  T  eat it  RQAC
35  d  M  no (4.5)  RSCO
36  d  T  are ya 'eatin' it (.)
     /3/ eat it  RQAC
37  d  M  no (5.5)  RSCO

     what is s- (1.5) what is dis room?  RQPR
38  T  I don't know (3)  RSPR
39  M  I think it's (. ) when ya have your (. ) tea  ASEX

     (1) I want tea=
40  T  I no like de tea  ASEP
41  M  I don't (1.5)  RSAG

     where's dat girl?
42  T  what?  ODCQ
43  M  where's dat girl? (4)  RSCCL
44 T \( \text{(hh)} \) come 'ere \( (3) \) RQAC

45 M no RS CO negative

46 d T sit down /en/ der RQAC

47 d M no \( (2) \) RS CO negative

\[ I /\text{hesli kẽmã ker/} \]
HONESTLY COULDN'T CARE prob

48 d T @ stand up RQAC

49 d M no RS CO negative

50 d T stand up RQAC

51 d M no \( (4) \) RS CO negative

52 T /\text{pẽlõs/} \( (. \) pick /@/ up \( (1) \) RQAC

good boy \( (5) \) ASEV

53 M no RSCO

54 T sit down der den \( (4) \) RQAC

did you really come in all these
 /
\( /\text{eõre:õr/} \) \( (=2) \) RQCH

\(. \) \( (5) \) what you lookin' ? \( (4) \) RQPR

55 T/M what's a @ @ @ @ @ @ @ @ \( (=6) \) \( (7) \) UNTP

---

T & H / \( \text{9n} / \text{birds} \)

<table>
<thead>
<tr>
<th>In</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
</table>
| 1  | T  | / fõre/ do that, \( \) RQAC
   |    | you first now \( \) ASEX
   |    | eat \( (. \) dem \( (1) \) UNTP
   |    | can eat your finger \( \) ASAT
| 2  | H  | they got enough times /tækəw/ \( \) ASDC
   |    | here y'are /tɔkəl/ here y'are bi' = \( \) EXAC
| 3  | T  | come on, come on \( (2) \) come on /swer/ \( (. \text{hh}) \) \( \text{sweet maybe} \) \( \) RQAC
   |    | he can come out there \( (2) \) \( \) ASEX
   |    | he can poke /ϕ / \( \) ASEX
   |    | here y'are \( (. \) \( . \) here y'are \( . \) \( . \) here dinner \( \) EXAC
| 4  | H  | /ϕ/ dinner \( \) EXAC
| 5  | T  | here dinner \( \) ODAG
| 6  | H  | dinner \( \) ODAG
| 7  | d T | he can eat it. \( \) ASAT
   |    | put it in there back first \( (. \text{hh}) \) \( \) RQAC
   |    | don't \( (. \) \( \) PFR
   |    | /fɔ də pə də / back \( . \) put it back there \( \) RQAC
   |    | \( \text{FIRST P PUT P prod} \)
<table>
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<tr>
<th>Line</th>
<th>Text</th>
<th>Transcriber</th>
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<tbody>
<tr>
<td>8</td>
<td>he's eats then (9)</td>
<td>ASEX</td>
</tr>
<tr>
<td>8</td>
<td>H dat's mine (1)</td>
<td>ASDC</td>
</tr>
<tr>
<td>9</td>
<td>they are mine</td>
<td>ASDC</td>
</tr>
<tr>
<td>9</td>
<td>T yeah (2.5)</td>
<td>RSAK</td>
</tr>
<tr>
<td>9</td>
<td>here y'are (1) here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td>10</td>
<td>H let's go (1) let's go</td>
<td>RQSU</td>
</tr>
<tr>
<td>11</td>
<td>T eh?</td>
<td>ODCQ</td>
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<tr>
<td>12</td>
<td>H let's go</td>
<td>RSCQ</td>
</tr>
<tr>
<td>13</td>
<td>T here y'are (.) dinner</td>
<td>EXAC+ODAG</td>
</tr>
<tr>
<td>14</td>
<td>H let's go</td>
<td>RQSU</td>
</tr>
<tr>
<td>15</td>
<td>T dinner (1) eat dinner (2) dinner (4) here y'are (3)</td>
<td>OADG</td>
</tr>
<tr>
<td>16</td>
<td>H /kəm/ go there (2.5)</td>
<td>ASAT</td>
</tr>
<tr>
<td>17</td>
<td>T //here</td>
<td>EXAC</td>
</tr>
<tr>
<td>18</td>
<td>H here y'are</td>
<td>EXAC</td>
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<tr>
<td>19</td>
<td>T here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td>20</td>
<td>H here y'are (1) /dəkɔl/</td>
<td>EXAC</td>
</tr>
<tr>
<td>21</td>
<td>T here you //here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td>22</td>
<td>H here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td>23</td>
<td>T dinner</td>
<td>OADG</td>
</tr>
<tr>
<td>24</td>
<td>H dinner</td>
<td>OADG</td>
</tr>
<tr>
<td>25</td>
<td>T/H /pi/</td>
<td>UNTP</td>
</tr>
<tr>
<td>26</td>
<td>T go outside</td>
<td>RQSU</td>
</tr>
<tr>
<td>27</td>
<td>H havin' dinner</td>
<td>ASDC</td>
</tr>
<tr>
<td>28</td>
<td>T here @ (4) naughty girl come on (.hh) eat dinner (.) and /wätcə/ (2)</td>
<td>OADG</td>
</tr>
<tr>
<td>29</td>
<td>H pu' it da back (2)</td>
<td>OADG</td>
</tr>
<tr>
<td>30</td>
<td>T /wɔb/ (3) come the /fɔk/ der</td>
<td>UNTP</td>
</tr>
<tr>
<td>31</td>
<td>H /fə/ to make these /de/ I have</td>
<td>ASRU</td>
</tr>
<tr>
<td>32</td>
<td>H/T ob</td>
<td>EXCL</td>
</tr>
<tr>
<td>33</td>
<td>T/H 'e hittin' /ə/ me (2)</td>
<td>ASDC</td>
</tr>
<tr>
<td>34</td>
<td>T don't, do it over /fə/ (1.5)</td>
<td>FPFPR</td>
</tr>
</tbody>
</table>
35  H  I'll 'ave it                  RQSU
36  T  @ @ gimme /bepəl/ (.5)            RQAC
     put it in der /bəp/                RQAC
     they're small                   ASDC
37  H  /jə st?b/ (3)                UNTP
     AM I STOPPED maybe

38  H  what to do /?s kən fol/? (2.5)  UNTP
39  T  hello                           ODAG
     my dinner goin' downstairs (3)    ASDC
40  H  what ya doin' now?              RQPR
tell teacher                        PFVA

41  H/T  /?o/ (1) /kɔwl/               UNTP
42  T  /pəz/                           UNTP
43  H  you can eat it now              RQSU
44  T  have you seen that? (1) and some more?  (2) @ @ (1) @ @ (2.5)
     SOME MORE maybe
     some more (1.5)                     RQSU
     put it (4)                          RQAC
     ss it's stuck (4)                   ASDC
     I'll pick up                        ASIR
     no g-                                UNTP
     I'm goin' put in (2.5)               ASIR
     he can eat it                       AGAT

46  T  eating now (.5)                 ASDC
     ain't ya?                            RQCH
47  H  yeah                             RSCH

48  T  go back                          RQAC
     be go                               ASDC
49  H  der (16)                         EXAC
50  T  dat much (3)                     ASDC

51  H  that's a good one               ASEV
52  T  yeah?                            RSAK
53  H  that's a good one (1.5)          RSAK

54  H/T  /?oəs/ (5)                    UNTP
     YOURS maybe
     they're eatin' /ɔwt/ (5)            ASDC
55  H  /wəl e ɪs/                     UNTP
     WHAT IS THIS maybe
56  H  he doin' it (4)  ASDC
57  T  where's the fruit?  RQPR
58  H  'ere y'are  EXAC
59  T  where's fruit? (1)  RQPR
     @ fruit (5)  ASAT
     wants
60  H  /θ/ we read /di/ books (1.5)  RQPM
       can THESE
       eh? (1)
       /θm ənz/ leave de book  UNTP
61  T  it's a happy birthday @ (2)  ASDC
       don't /fil əm/ (3.5)  RQAC
62  H  wwh (=.5) (.)  EXCL
       go for a /wɔiwi/ (5)  UNTP
       ride ride maybe
       he go fast now  ASDC
63  T  he go' all (1.5)  ASDC
       want some fruits (3)  RQCH
A & J / 10X / guinea pig

<table>
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<th>Utterance</th>
<th>C-act</th>
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<tbody>
<tr>
<td>1</td>
<td>J</td>
<td>eh (3)</td>
<td>EXCL</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>/ɔw di bɔwts/? (10) WHOSE ARE THESE BOOTS prob.</td>
<td>RQPR</td>
</tr>
<tr>
<td>3</td>
<td>J</td>
<td>ah (1)</td>
<td>EXCL</td>
</tr>
<tr>
<td>4</td>
<td>A/J</td>
<td>oww (=1) (2)</td>
<td>EXCL</td>
</tr>
<tr>
<td>5</td>
<td>J</td>
<td>ssh (=1)</td>
<td>EXCL</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>what's /ɔ/ (1) THAT OR UP [clap clap] (laugh=1) /bɔ j wɔ/ (=.5)(1.5) NOISES</td>
<td>EXCL</td>
</tr>
<tr>
<td>7</td>
<td>J</td>
<td>wha' ya /wɔ/ (1.5) WANT</td>
<td>RQPR</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>my god</td>
<td>EXCL</td>
</tr>
<tr>
<td>9</td>
<td>J</td>
<td>ohh(=1) (.5) she's gone to sleep owh(=1)</td>
<td>ASAT</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
<td>put 'em in (1) /bɔi/ your friend now</td>
<td>ASAT</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>@ @ @ @ @</td>
<td>UNTP</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
<td>go like dis den</td>
<td>RQAC</td>
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<td>13</td>
<td>J</td>
<td>no</td>
<td>RSCO</td>
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<td>A</td>
<td>go# on (5)</td>
<td>RQAC</td>
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<tr>
<td>15</td>
<td>J</td>
<td>why? (1)</td>
<td>RQPC</td>
</tr>
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<td></td>
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<td>@ @ @ @ @ @ (1) LOOK THEY BEEN EATING CRIPS @ @ @ @ (.5) @ @ @ mines in. EATING maybe</td>
<td>ODAG+ASDC</td>
</tr>
<tr>
<td>16</td>
<td>A/J</td>
<td>yeah (X7) apple (6) (laugh=1) (.) (laugh=3) (.5) (laugh=1) (5) [clap clap] (1) (noise=.5) [clap clap] oh [clapping=5]</td>
<td>ASID</td>
</tr>
<tr>
<td>17</td>
<td>A</td>
<td>ssh ssh</td>
<td>PFWA</td>
</tr>
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</table>
she's comin' /tə ˈbəː/ JUMP OUT maybe

18 J oh
19 A she might 'ear and jump out HEAR

20 J oh
21 A @ @ jump out @ @ THAT ONE

go on @ @

(1.5) /təɪn/

22 A/J (whispering=5)
23 A /pj ʃəm/ (. ) PUSH HIM missed

24 J yeah?
25 A no

/ʃə ʤ drə ʧ/ get in car (1)

26 J yeah

27 A /ə shoʊ tə dən/ (2) and she's comin'

28 J I /wə/ to come on WANT

I wanna @. I wanna go in the corner ASIR
I wanna go back in the /ˈkʌldərnts rʊm/ ASIR
CHILDREN'S ROOM

I'm - in' @ @ @
no no @ @ @

29 A ssh ssh (2) no no @ @ @

29 A ssh up (7)

[clap clap] (3) [clap clap] (.5)
[clap clap] (2) [claps x 4] (7)

ssh @

come give us it (3)

30 J eh up
he's coming

31 A no she's coming

32 J where dat cover /de/ THEN

33 A what?
34 J 'ook
35 A it's (1) s(. )pider (laugh=1)

wash 278
36 J/A @
37 A ssh (1.5)
38 J/A /pəidə/ (3)
39 d J I'll tell teacher of you
40 A why? (4)
41 J /ə wəi də/ (6)
42 A yeah (5)
43 J /oʊdə pədək/ )
44 A O.K. /bæŋɡu/ )
45 J @ @ was easy (1.5) @ @ (5.5)
46 A she might jump out
47 J why?
48 A she'll jump out /ənfrə ʃ/ me (2)
49 J /wəl əp/
50 A whose are those boots?
51 J eh?
52 A whose are those boots?
53 J oi /rəpə/ they're pushin' off the thing
54 A whose are these?
55 J might be get // ʃəst/ (2) @ @ @
56 A if I put my hand in der
57 J where's she?
58 J/A she /ˈbɪnə/
59 J let's sit on 'ere (4)
60 A a map, a map
61 J yeah .)
62 d A I'm n'your friend now
63 J why?
64 A no
65  J why?       RQPC
66  A no        ESCL

67  A/J see a map? (4) RQCH
68  J here's Leeds (1.5) ASID
69  A // I go* go London ASIR
70  J Leeds ee ee Leeds is der ASID
71  A and dat's London ASID
72  J /a/ London RSAK
73  d A I wanna go (noise=.5) ASIR

look ODAG
you got 'em (.hh) ASDC
you got my /bəndəs/ (.5) PFCL
that's my // @ @ @ PFCL
74  d J @ @ @ @ RQAC
   @ GET AWAY FROM ME prob
hey EXCL

A & I: /10m/ rabbit

Tn  Sp  Utterance   C-act
1   I  you gonna talk to 'im first RQSU
you talk first   RQAC
2   A  hello ODAG

   A/I        hmm
3   I  @ @ @ @ @ @ @ @ UNTP
   I/W I WANNA HAVE A BIRTHDAY maybe
   @ (3)       UNTP
   @ HOW or NOW
4   I  'e's scared ASAT
   @ @ @ @ @ @ @ @ (1.5)
   I WOULDN'T DARE DO IT TO YOU maybe

5   A  'e's goin' bite us ASAT
6   I  yeah RSAK
you talk   RQAC
he'll bite us (1) ASAT
shur up (3) RQAC

   hey ODAG
   gimme some food RQAC

7   A  dis way? RSAK
8   I  yeah (.) yeah yeah (.5)
yeah yeah yeah RSAK

9   I/A gimme dat:: (6) RQAC

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10 I no (. ) I didn't RC 
   @ @ dis. 
   SHOW 'IM maybe 
   do it like dat: (7) RC
   do it like dat (2) RC
A
11 A give it to me eh? (2) RC
   drink water (. ) water RC
I
12 I ah: EXCL
   do it like dis @ @ RC
A
13 A /ʃəw/ it out (2) /ʃəw/ it out (3.5) RC
   THROW THROW
14 I no (3.5) no PPFR
   he doesn't like ASAT
A
15 A he come /bəwf/ (2) ASDC 
   wanna come out (1.5) ASAT
I
16 I open /t/ (3.5) RQAC
   IT
17 d A give dis (1) a drink /ɑ/ water (4) RQAC
   no PPFR
   like dis (2) RQAC
A/I eh eh /kiki/ (banging=4.5) EXCL
18 I /nə go tə/ (1.5) RC
   LOOK AT DAT
19 A dat's it (.5) ASID
   goin' drink 'ere ASAT
I
20 I @ /pəz ɔwət/ (3.5) RQAC
   LOOK AT DAT prob
   yeah we /bəwət/ (1.5) @ @ ASDC
21 A what's dis? RQPR
22 I those are crips RSBR
23 A eh? RDCQ
24 d I crips and don't chuck it RSCL+RQAC
25 A why? RQPC
26 I no /ə a ɔ/ RSCL
27 A dis? RSAK
28 I no RSAK negative RSCl
   eat and eat erm: dat to /wər/ UNTP
29 A 'e's comin' out (2.5) ASDC 
   /pəs dat ɔn/ see dat /pən dat ɔn/ UNTP
   WHAT OF ONE HAPPENED maybe
30 I yesterday jump (1) ow ASDC+EXCL
   I'll see dat on TV. (.) relax (. ) oh ASDC+EXCL
   I' seen it on TV. (.) ASDC
   ah (.) EXCL
   //dzəm/ T.V. ASDC
   CHILDREN
31 A @ @ @ eh UNTP

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32 I I' seen on-
33 A oh
comin' out
34 I no (1)
/təə/ him
35 A 'e's comin' now
36 I 'e can /dəw/ down
37 d A look (.)
der's some water der (4)

38 I no
like dis (.) like dis
39 A oh: (. )
can't
like dis
40 I oh dear (.) /kək ðədz/ (3)

41 I/A owh
come here
42 I /məwt/ (2) not der
43 A it was m' birthday
44 A it's my birthday
45 I o (. 5) oh

46 A could be /əw/ goin' bite us (1.5)

47 I yes:: @

48 A I'll get out (3)
der look
der lights (2.5)
ah

49 I uh
ger down

50 A /də/ water goin' eat /i ə/ (4)

51 I/A wh= (1)
/ri/ (4)
ALRIGHT maybe

52 A I said (.) gi' /ə/ some (. )
I give /ə/ some
give /ə/ some

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I no, I can't hear maybe

/open de door (.5)
speaking thing (. ) a speaking thing (1)

I can fall

It

he's goin'

look look look

see what he doin'

look watch watch (.5) watch (2)

I /etu/

watch watch

go on then

watch=

where? (1.5)

/hi/ (2)

A/I (.hh) (2)

I gi' me some like dis

/heard (1)

forward

shut it (1) ahh (=1) ah

I can't do it @ @ @

A/I /gə fə va de wə lə fə va/ SHOVE IT

/ires/ gimme some dis

no no

don't give 'im anymore

he's got/pls/ (. ) already (1.5)

A eat some

I 'e eat some

A pu' dis down here

/no na ho /

leave it der, will you?

no (1) don't /nə h/

don't do it like dat

' e's eating it

like dis

/shove it maybe

shove it
here boy (. ) here y'are

68  A  here /kərəʃ/ EXAC

69  d  I  hey EXAC

68  A  'e's /məwə/ we scared him ASAT/ASEV

70  d  A  put dat jug /ə/ water /ədə də/ RQAC

71  d  I  no PFPR

you scared him ASAT

71  d  I  no, no, PFPR

you scared him now PFPR

71  d  I  /əh/ here boy, here EXAC

72  A  here boy, here boy EXAC

73  d  I  no, you don't FFPR


74  d  A  /əʊ wə diə də / water /mə/ DRINK THE PROB MAN prob RQAC

75  d  I  /həw naw/ UNTP

76  A  here /spo/ SOUP EXAC

77  d  I  no no:: FFPR

ger it out PFPR

77  d  I  no, PFPR

77  d  I  ger it (1) RQAC

ah EXCL

don't do it like dat RQAC/FFPR

77  d  I  look /ew/ water is out ASEX

78  d  A  /stə/ (1) /stəliə/ ger out RQAC

come on, be full (.5) RQAC

78  d  A  /sitə/ good boy ASEV

79  I  here boy, here boy, here @ EXAC

80  A  /sitek/ let /t ə kərəʃ/ UNTP

A & S / 10n / guinea pig

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<tr>
<th>Tn</th>
<th>Sp</th>
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<tbody>
<tr>
<td>(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>S</td>
<td>go to de b- room ASIR</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>@ @ @          UNTP</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>S</td>
<td>eh? ODCQ</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>I /dəw/ RSUK</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>S</td>
<td>eh? ODCQ</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>we /kən/ he's dead ASEX</td>
<td></td>
</tr>
</tbody>
</table>

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7  S  yeah (30)  RSAK
    eatin' it (3)  ASDC
    look at 'im  RQAC

8  A  why we come @
    why we come here?  RQPC
9  S  yeah  RSAK
    why de /od2/ lady come (. ) why? (2)  OTHER

10  A  @ @ poke (laugh=.5) (5)  UNTP
11  S  @ @ put dat up  UNTP
    I put two in der (2)  ASDC
    'e could go @
    UP maybe
    hey (.) hey (.) hey
    le' it go  ODAG
12  A  le' go (1.5)  EXRP
13  S  d'you want t' go up? (2)  RQCH

14  A  why we @ @ @ (1) (whispering =3)  RQPC
    ohh [plop] (5)  EXCL
15  A/S  wh- (12)
    keep dat door open (3)  RQAC
    (whispering=2) (34)
16  A  why dat lady come? (3)  RQPC
    I  @  @
    DON'T KNOW OR WANNA GO HOME
    why dat lady come? (8)
    lady come? (. ) here.
    dat lady come? ( . ) here (5)
    she comin' now (4.5)
    hide  PFWA
    RQAC
17  S  baby (1.5)
    you got a baby (. ) baby? (6)  RQCH
    's a baby (whispering=5) (4)
    THIS IS
18  A  why d' we come? (3)  RQPC
    why's it out 'ere? (2)  RQPC
19  S  we don't /erk:: / (7)  ASDC
    WORK
    she come (2)

20  S  are we @ @ // * go home late  RQCH
21  A  ch ch#
    does 'e do it?  EXCL
22  S  /na @ d w/ (nonsense=5) (3)  RECH+RQAC
    NO YOU DO PRO
    ya /wat/ 'ere
        WEREN'T
    eat=  ASDC
    RQAC

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23 d A eat (.)
don't gi' /m/ half (2)

no don't

gi' 'im one half piece (4)

24 S /z/ a lot

25 A I can

26 S 'ere
27 A how?
28 S gi' /d/ dat (1)

/ə/ it out (1.5)

29 A how?
30 S ya pull it (.) den /dIe'n/ (.)

h'are (3)
it's here den (1.5)
done it

31 A /təl/ do it 'gain

32 S yes (2)

33 A /ti əw i/ (3) (plop)

I hit (6)
here y'are go' it

34 S @ (4)

35 S /kæθn/ (5)

give /her/us some prob
/təd kara kad jəra/

36 A I gi' 'im it first (7)

we could gi' it all look (.)

37 S /wə?'

38 d A I said give it all now

39 S 'ere (6.5)

ahahah(=1)
did it (.) I broke and did it (5)

40 A I see /də/ goin' home (.) (.hh)

if dey could stop we could (4)

41 A/S /pə ðən/ (11)

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**J & M / 11M / rabbit**

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<tbody>
<tr>
<td>1</td>
<td>J</td>
<td>/tə ʒə wʊna/ eat it</td>
<td>UNTP</td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>I know he can eat it in two minutes</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) dat's 'is photo ya know</td>
<td>ASDC</td>
</tr>
<tr>
<td>3</td>
<td>J</td>
<td>if I 'ave to eat (. .) /ʃm/ (.hh)</td>
<td>ASEX</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>here y'are, here y'are,</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here y'are, here (1) /dʒ/</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>J</td>
<td>umh umh</td>
<td>EXAC</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>'ere eat:: (2)</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laugh=1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>a sho ooh</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'ere eat</td>
<td>RQAC</td>
</tr>
<tr>
<td>7</td>
<td>J</td>
<td>it's a rabbit (. .)</td>
<td>ASID</td>
</tr>
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</table>

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**Utterance:**

Don't she won't maybe

---

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<tbody>
<tr>
<td>8</td>
<td>M</td>
<td>put it there=</td>
<td>RQAC</td>
</tr>
<tr>
<td>9</td>
<td>J</td>
<td>eat eat eat 't (2)</td>
<td>RQAC</td>
</tr>
</tbody>
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**Utterance:**

Brother shall I give some apple to 'im

---

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<tbody>
<tr>
<td>10</td>
<td>M</td>
<td>eat y'apple</td>
<td>RQAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/u/ shall /ɰ/ pu' it pass it to 'im? (1.5)</td>
<td>RQPC</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>shall we feed 'im?=</td>
<td>RQSU</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>12</td>
<td>M</td>
<td>where?</td>
<td>ASDC</td>
</tr>
<tr>
<td>13</td>
<td>J</td>
<td>der</td>
<td>ESFR</td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>oh /ŋ dʒw/</td>
<td>RSAK</td>
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<tr>
<td>15</td>
<td>J</td>
<td>it's only 'tending to be</td>
<td>ASEX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRETENDING [it's a model birthday cake]</td>
<td>ASDC</td>
</tr>
<tr>
<td>16</td>
<td>M</td>
<td>/vʊə/ I //know</td>
<td>RSAK</td>
</tr>
<tr>
<td>17</td>
<td>J</td>
<td>/kʊ/ (1.5) fog</td>
<td>UNTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here (1) here here here here here // here (about 7x more)*</td>
<td>EXAC</td>
</tr>
<tr>
<td>18</td>
<td>M</td>
<td>here (about 7x tunefully)* (2)</td>
<td>EXAC</td>
</tr>
<tr>
<td>19</td>
<td>J</td>
<td>pa::</td>
<td>ODAG</td>
</tr>
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<td>20</td>
<td>M</td>
<td>oh aah:</td>
<td>EXCL</td>
</tr>
<tr>
<td>21</td>
<td>J</td>
<td>owh dear</td>
<td>EXCL/RSAK</td>
</tr>
</tbody>
</table>

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<tr>
<td>M/J</td>
<td></td>
<td>(hh) /bɛst/</td>
<td>UNTP</td>
</tr>
</tbody>
</table>
22 J  `pa
brother  ODAG
23 M  wwh (4) [plopl]  EXCL
   eat  RQAC
24 J  der got it /* de' got it (4.5)  ASDC
25 M  eat* eat  RQAC
26 J  `pa;/
brother  ODAG
27 M  what? (1)  RSAK
   you look // at it*
   you look // at it*  RQAC
28 J  that's your* picture book /əm/ in here?  RQCH
29 M  no  ESCH
   we could /stʃ/ some (2.5)  RQSU
   wh- der's the carrot (1)
   the carrot (.) the carrot  ASDC
30 J  owh  EXCL
   he's not eatin' the carrot  ASDC
31 M  the carrot's der
   carrot where?
   der's the carrot  RQPR
   ASDC
32 J  oh owh (.,5)
   she won't ger out of the box (.,5)  ASAT
   it's too long big (3)
   de carrot (.) de carrot, de carrot.
   owh owh ah wwh
   (=3) it's a rabbit  ASID
33 J/K  owh owh wwh (=2.5)  EXCL
34 J  fee- feed the @ (.,5)
   I'm scared of it (.,5)
   (noises=2) (.) (laugh=1)
   (.,) wwh wwh (=2) (15)
   EXCL
35 M  wwh (.,5)  EXCL
   we saw /də bɪtəm ɪz/ (.) little piece / bɪs/ UNTP
   SILLY VOICE
36 J  ssh /ə/ comin'
37 M  I'm listenin' in der (6)
   J/K  wh wh wwh wh (=2)  EXCL
38 J  e's licked it off  ASDC
39 M  oh no  RSAK negative
40 J  what? (4)  ODCQ
41 M  /wɹc/ apple:: hm.
   WHICH PRON
   he can speak apple, apple, apple .
   (.5) apple, apple, apple, apple appl=
   (=3) apple, apple, apple, apple appl=
   ASAT
42 J  d'you want some apple?  RQCH

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43 M oh, e's gonna eat the carrot, ASAT
aren't ya, aren't ya? RQCH
eat it (4) RQAC
/wwc w3 2/= WANNA go ASIR

44 J have you? RQCH
45 M no I 'aven't (1) RSCH

46 d J oh oh God= EXCL
47 d M let him RQSU

48 J don't want to kick @@ (5) ASIR
www(=1.5) EXCL

49 M in a minute. ASEX
wh oh (-1) (1.5) EXCL

50 J 'I'll come in a minute (. in a minute
(.5) alrigh' in (. in a min', alrigh'
(.) //# in a min' alrigh'
//# [hot air heating comes on]

51 M what is de wind? RQPR

52 M in a minute. ASEX

53 J /jas/ why dey keep stories in 'ere? RQPC

54 M aah(=1.5) EXCL
no @ FFPR

55 J der's Postman Pat ASDC
56 M where? RQPR
57 J there RSPR
58 M where? RQPR
I can't see it ASIR
59 J der der RSCL
60 J der: //: RSCL
61 M where? RQPR
62 J der: //: RSCL
63 M where* RQPR
64 d J can't ya see it? (1) RQCH
can't ya see it? (1)
gadhi (laugh=1) FFTE

65 d M don't call me g'd-' FFPR

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called me gadhi /bats/ (1) (laugh=.5) ASEX

/bala du/ (.5) /pati fati tati ata gathi/ PFTE

(laugh=2)

@ said dat ASDC

/* it's not gadhi ASS

ah (=1)# ooh (=1) EXCL

/tati/ PFTE

PLAYING WITH SOUNDS

M @ said dat ASDC

it's not gadhi PFPR

ah (=1)# ooh (=1) EXCL

/tati/ PFTE

CALLING NAME

J did your Mum tell 'im off? RQCH

I be (.) upstairs and work (.) /sum/ ASEX

J did you tell @ @ @ @ ? (1) RQCH

A LITTLE FIB maybe EXCL

ooh (=1) EXCL

11 secs inaudible

ooh ooh (=1) EXCL

oh dat land on his head (3) ASDC

got it, got it ASDC

ooh owh (=1) EXCL

J & A / 11m / birds

Tn Sp Utterance C-act

1 A @ @ @ @ @ @ UNTP

J @ tell @ how to do it? RQSU

SHALL I TELL YOU maybe

3 d A @ @ @ (5) UNTP

ALRIGHT NOW maybe

you don't know it /na/ NOW ASAT

4 d J it /d@nt/ fit all in like dat ASEX

don't do it like dat RQAC

why not? RQPC

5 A

6 d J do it (2) RQAC

don't /@/ him RQAC

HIT maybe

don't do dat one (1.5) PFPR

not like that (.5) PFPR

break it off like that (.)

break it off like that (.) break it.

break it like that RQAC
7 A bird (2) ODAG
8 d J break it (1) RQAC
break it off like // * I do ASEX

9 A uhh! EXCL
10 J /dənt/ matter (14.5) ASEV

11 A I break it (3) ASDC
12 d J break some bit more (.) RQAC
don't break that one (3) RQAC
we've broken it all (.5) ASDC
tell the teacher (.5) RQAC
no it /dənt/ matter (.) /dənt/ matter (11) ASEV

13 J/A oops (17) whoo (=1) (1.5) EXCL
14 J I've broke them all (17) ASDC
15 A eat (1) RQAC
now that bird is eat (1.5) ASDC
and now the- they're fightin' the bird ASDC
ah EXCL

16 J they both are nice RSAG disagree
17 A that's nice that's nice ASEV
18 J I like the both /əv/ because I // like ASEX
   of

19 A that's# because they need dis nice (.hh)
because this not nice RSAG disagree
20 J they are nice (1.5) ASEV

21 A it (.) go (.) /fə faɪtn/ he (2) two bird UNTP
   FRIGHTEN OR FIGHTING
22 J /ə mɔɪ/ @ @ @ UNTP
   ah ah EXCL
do a little bit more RQAC
only do a little bit /ɒʃ/ (1) /ɒli/ - ASEX
   I AM PROB ONLY
no don't (6) don't (3) RQAC negative

23 A wh (2) @ @ (2) wh EXCL
24 J they don't bite you ya know (3) ASAT
I like // dem ASIR

25 A @ UNTP
26 J I like 'em (1.5) ASIR
27 A /kiəw/ (5) UNTP
28 J not comin' is it? (5.5) ROCCH
29 A /bə/ no, stop it (9) FPFR
30 d J ger off RQAC
31 d A he needs doin' /i sii/ (11) @ ASAT

(5) /diiz' kli/ THIS CLOCK

32 J ah? ODCQ
33 A dis clock is nice ASEV
34 J I know (.) RSAK

we're gonna get one.

ge' a better one than dat on my /dartz/ ASEX

35 A your /dartz/ you can tell 'im (2) RQSU

birthday/dartz/ (2) @ @ (2) BIRTHDAY PROP

36 J birthday (.) we'll get them if we be-

37 A /din?/ my // birthday (clapping=1) # UNTP

//ah EXCL

38 d J owh* EXCL
don't (1) PFPR
don't you touch a @ @ bird (4) RQAC

39 A cuckoo (2) PFJO
/3 səməl (.) ɬəi ətaləikki/
you /r b/ head (.) you both, you /fəsili/
/hi/ she's not /gəw/

38 J @ @ I don't (.) BSAG disagree
I like either one (1) birds (2) ASIR

39 J oh* EXCL

to like it ASIR

40 J @ @ I don't (.) RSAG disagree

41 A he /ko hi ni fi/ (.5) UNTP

he said to go ou' of it ASAT
cut him with it maybe

42 J /hoi rəsk/ (2) UNTP
43 A these not all there (3) ASDC
it's (1.5) UNTP
say /səwkriebə a/ (4) RQAC

44 J you could say ladies and gentlemen RQSU
/sə/ /əz/ a very good girl (1)
and very good boy ASEV

45 A here you /əi ɨn/ (4) EXAC
are mayb=

46 J ha they're falling off (4) /h r n in/ ASDC
47 A I see it (hh) ASIR
/pə/ (.) look ODAG

look
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>J/S</td>
<td>(laugh=1) (6.5)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>stroke 'im</td>
<td>RQAC</td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>what?</td>
<td>ODCQ</td>
</tr>
<tr>
<td>3</td>
<td>J</td>
<td>/ə/ we stroke 'im</td>
<td>RQSU</td>
</tr>
</tbody>
</table>

he's just a little one ya know (.)
'ere y'are

| 4 | J | shall we give 'im some more? | RQSU |
| 5 | S | what? | ODCQ |
| 6 | J | shall we give 'im some more? // @ | RQSU |
| 7 | S | yeah* (3.5) | RSCQ |
| 8 | J | na (1) | RSCH |

he's havin' some (3)
d'ya want to have some more?
J/S /ə/ in it (2)
9 | S | no: | UNTP |
10 | J | is she /gi/ it? (3.5) | RQCH |

he needs it ya know

S | what? | ODCQ |
12 | J | he needs it ya know. | RSCL |

'e's a little one.

S | 'e can walk /li/ (.hh) dat little one | ASAT |
| /z/ can walk /ə/ in the, in the /pɔkts/ |
14 | J | um? | ODCQ |
15 | S | der, dem can walkin' (.5) | RSCCL |
| him walkin' (2) | ASDC |

16 | J | sh (1) don't hit ya | ASAT |

17 | S | what? | ODCQ |
18 | J | why don't ya move the chair like dis | RQAC |
19 | J/S | ss (.5) @ @ (2) @ @ @ @ (2) | UNTP |

I LIKE TO KNOW maybe |

20 | J | 'ook at 'im 'e @ (1) | RQAC |
| if I close it (2) | UNTP |
| no no no no no (4) | EXCL |
| go /ən/ call the teacher (2) | RQAC |
| why don't you? (5) | RQPC |
| d'you want some (1.5) d'you want some? | RQCH |
21 S  giv' it den (.5)  giv' it  RQAC
22 J  /ɔ/  won't let me (.5)  ASIR

ya see 'e's eatin' (1)
' e's eatin' the grass (5.5)  ASDC
giv' 'im some (.5)  /ɪnκ/ (2)  RQAC

THING

23 S  /iz  daɪbit/  RQAC
EAT THAT BIT prob

24 J  um?
ODCQ

25 S  /daɪbɪt/ (2)  RSCL
THAT BIT

26 J  no; no;: (7)  EXCL
27 S  /ə ʃ iʃ  tɔ/ (2.5)
I WANT FOR THE TOILET  UNTP
mayb

28 J  I'm up to here I am (5)
he can't reach us he can't (1)
/ə  dɔ  bɪ/ (7)
THAT BIT

'e's too small (.)
he can't even (.)  /rɪk dəwms/ dat much (2.5)  ASEX
REACH DOWNS  maybe

29 S  /diːdɪz/ little one
THIS IS maybe  ASDC

dem two bigs (1) dat der
30 J  /wɔ/?  RQPR
WHERE

31 S  /fʌms (.)  təwms/ (.) der
THERE  TWOs  RSCL

32 J  der's two o'  // 'em?=
RQCH

33 S  I*  /bəri/  I  /bəri den  ɔnɔx/
clause formation  clause formation
BETED  BETED  (NAME)  maybe

dat h- (hh) (2) got winner (2)
one one (hh)

one in 'ospital, one 'one (2)  ASEX
34 d J  one in hospital and one home (4.5)  RSAK
you didn't say it properly  ASRU

35 S  what?  ODCQ
36 d J  you didn't say it properly  ASRU
37 d S  yeah I can  RSAG disagree
38 d J  can't (4)  RSAG disagree

because because you talk to me like dis  ASEX
/ʃ ə ʃ/  
COUGHING NOISE

we cough in de bed  ASDC
(1) I'm sleepin'  ASIR
39 S he's slept (2) ASAT
40 J he's no'it (1) RSAG disagree

see 'e's doin' it (.hh) ASDC
he /wə/ somethin' to eat now ASAT

41 S look at 'im RQAC
he can't reach it now, ASAT
he did reach /wə dəd 1/? (2) RQCH

42 J one do m' like dat (4) UNTP

43 S we can go an' call the teacher? RQSU
J/S 'e's not coming ASEX
44 J /sə/ know (2) is not (3) RSAK
she or i

0 are ya goin' like dat? RQCH
45 d S I want t' stay here ASIR

and you go RQSU
(1) d'you? RQCH
46 d J no (1) RSCH

bite you in der (4) PFWA
47 S it's /təle ræbət/ can't bite me (1) ASAT
RABBIT
dat other one can bite me (4) ASAT

48 J he got Rupert you know ASDC
49 S no RSAK negative

50 J can't bite (.hh) /ræbət/ can't bite ASAT
RABBIT

51 S /ræbət/ no' bite me (3.5) ASAT
RABBIT
/kə lʊk ɪ/ (4) ODAG
LOOK HERE

52 J eats some more ASDC
<table>
<thead>
<tr>
<th>Utterance</th>
<th>C-act</th>
<th>In</th>
<th>10:12 Groups-of-four (Southall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>where's the food? (12)</td>
<td>1</td>
<td>1</td>
<td>excl</td>
</tr>
<tr>
<td>not eating (6)</td>
<td>4</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>hands off book while she doesn't eat</td>
<td>3</td>
<td>3</td>
<td>excl</td>
</tr>
<tr>
<td>(laugh=1) (1.5) aloud(=1) (5)</td>
<td>5</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>hi=it (4) hi=it (4)</td>
<td>8</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>3/4 tushy/tushy</td>
<td>9</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>I finished the // (2.5)</td>
<td>10</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>you can't go now // (.5)</td>
<td>11</td>
<td>3</td>
<td>excl</td>
</tr>
<tr>
<td>I gotta wait for me</td>
<td>12</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>you give me some o'/di (3)</td>
<td>13</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>this or it</td>
<td>14</td>
<td>3</td>
<td>excl</td>
</tr>
<tr>
<td>go and sit there</td>
<td>15</td>
<td>4</td>
<td>excl</td>
</tr>
<tr>
<td>cause, I'm gonna go with you</td>
<td>16</td>
<td>3</td>
<td>excl</td>
</tr>
<tr>
<td>thank you (5)</td>
<td>17</td>
<td>2</td>
<td>excl</td>
</tr>
<tr>
<td>Line</td>
<td>Text</td>
<td>Tokenization</td>
<td>Pronunciation</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>18</td>
<td>look (.5) Rajwant /10/ look or here</td>
<td>O DAG</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>jaa! (. ) noise</td>
<td>EX CL</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>look (.3) (laugh=2) (.15) (laugh=1) (.8)</td>
<td>O DAG</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>we having to all make out (. )</td>
<td>ASEX</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I gonna take all fo' us (. ) hana (.4) for tag</td>
<td>A SIR+R QCH</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>(blowing=3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>(blowing)* tut, oh we'll // fall /a/* down (.8) P FW A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Rajwant mummy's come</td>
<td>A SDC</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>uh?</td>
<td>O DC Q</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>look (. ) mummy's come to look at me A SAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>and me A SAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Rajwant (.3)</td>
<td>O DAG</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>go /a/ (.2)</td>
<td>R Q AC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ah (=.5) (.1) teacher's /di/ there</td>
<td>E X CL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I'm going</td>
<td>A SIR</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>I'm n- I'm n- no:: don't</td>
<td>P FP R</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>I (. ) g- /3w/ (. hh) I get them with you</td>
<td>A SIR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gave of good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I'm not /wri/ worried maybe</td>
<td>A SIR</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>I'm not too (.4)</td>
<td>A SIR</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>mind dat /12d/ (.2.5)</td>
<td>P FW A</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>my mummy's come (.6)</td>
<td>A SDC</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>ya mummy:: (.3)</td>
<td>R SA K</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>sadi kol vi nai mha ka1 v1 nai nika1da hana</td>
<td>A SDC+R Q CH</td>
<td></td>
</tr>
</tbody>
</table>
um um (6) RSCH

Raj want @ ODAG
"fi e/ UNTP
"vi dekho @ @ (18) RQAC
FN. ALSO LOOK

/s? ma wjzk/ SOMEONE WORKS maybe
can't do dat (5) ASRU
@ in here (3) RQAC

y'ave this bit(.) /nənis/ (2) RQAC

some more RQAC
dat's /k2/ // UNTP
gimme some RQAC

//oh EXCL
/de/*
/k2/* (laugh=1) RQAC
USH proD
/tiz e/ ahh UNTP

/open it* RQAC
don't touch* RQAC

open (2) RQAC
@ @ @ @ UNTP

dis one RQAC

hah: EXCL

hah: (3) EXCL

@ @ @ @ @ @ UNTP

yeah RQAC
's a little @ (2) ASDC

(squeal=1) (4.5) oI EXCL

/ia 9v (.5) ənkd/ (6) @ @ (6) UNTP
(all laugh=4)

pick dat on the floor (1) RQAC

bat ja (2) PFPR
STOP
oi (6) ahja (5.5) EXCL
get some out (2) RQAC/ASIR

Nadia (1) ODAG

etbe vic pai ja RQAC
HERE IN KEEP-PUTTING

no: PFPR

put some here (5) RQAC

feed /ɛ/ dis one RQAC
let's see some more o' dis (2)  
SOME MORE O' DIS PROB

what's your name?  
what's your name?  
what's your name? (2) (laugh= 1.5)

SHOUT

/baba/ /ke/ it  

a waters

/o pani /nuk- /nukol səkdə a /

THAT WATER COME-OUT IS-ABLE-TO

ona ne pani pina (1.5)  
THEY WATER DRINK

THEY WANT TO DRINK WATER

no:

/o pani na /bəwlə/ (1.5)  
THAT WATER NOT

no:

e teacher ki kərdi?

WHAT DOING

teacher ki kərdi? (7)

WHAT DOING

no::

kuʃ məɾə  
SOMETHING MINE

a de' ki a? (laugh=1)

LOOK WHAT IS

/citi/ ohh  
@ pani nəkəl jəna hana? (8)

WATER GO-OUT qatəq

oh (.5)

here piece // @ @

here# y'are birdie (2)

no::: (3)

/al/ it's min//e

shur up
/tɔc/ it
TOUCH maybe

12 2 birdie birdie (.)

13 4 birdie birdie

14 1 birdie

15 ? /akli/
QUICKLY maybe

16 4&1 @ @ @ 0 0

17 4 dinner food (1.5)

18 1 /kɔnɔ əd/

19 4 /tɔ/ le' me have /?/ dinner food (3)

20 1 ahhh(=1) (.)

21 2/3 food (2)

22 2/3 eh

23 1 ai

24 1 bəl /nɔ/ apne /tim/ nuŋ dedena 0? (2) ASIR
TOMORROW give OWN TEAM TO GIVE
TOMORROW I'M GONNA GIVE TO MY OWN TEAM

25 3 /zinu/ vi de
TEAM nu or məˈnu) ALSO GIVE

26 2 here y'are (. ) birdie (.5)

27 3 Rishi a le /ˈʃi/ (1.5)
NAME TAKE IT

28 4 hey Rishi

29 1 water kitthe paie?
WATER WHERE SHALL-WE-PUT

30 3 /ˈʔʔʔ/ der (2)
OVER

31 4 məi (4)
NO
32 1 a kwn e dedena samu
PH, WHO IS GIVE TO-US
WHO IS GOING TO GIVE TO US
RQPR

33 2 le' me
RQPM

34 1 no, no
PPFR

35 2 teacher (1.5)
ODAG
he do like that (6)
ASDC/FFPR

36 1 I 'aven't pushed it /awpa/
RSAG disagree

37 2 there we are birdie (.)
EXAC
dis your food dinner
ASID

38 3 apañ jana na Harprit?
WE GO NOT NAME
AREN'T WE GOING?
RQCH

39 1 n[i]
NO
RSCH

30 yerekal (.hh)
YET COME-OUT

odoq sara /frwta/ ena nu dena
THEN ALL FRUIT THEM TO GIVE
RQSU

fer @ javage
THEN WE'LL-GO
RQSU

40 3 @ @ @ alright kirda
THEY DOIN' IT PROB GOING
ASEV

41 1 wwh (blow=1) wwh
EXCL

42 2 there y'are (.5)
EXAC
do it do /at/ do it do /at/ do // @ @ @
RQAC

43 ? /di ʃ/ do (laugh)
UNTP

44 4 pani pin' laggag
WATER DRINK ABOUT-TO
pani othe laggag
WATER THERE ABOUT-TO
ASAT

45 ? put @ it in ::
RQAC

46 3 on- one- one pani lena
IT WATER GET
ASAT

ene onu khana
IT THOSE EAT
ASAT

47 ? /d3nu/
UNTP

48 1 owh (.) owh owh
EXCL
/mw3/ kirdi e (2)
ASDC
/hale m3nu hale ¿ga laqga laqpa/
UNTP
SONG (meaning unclear)

/3 spi pi/
A SPARE PIECE maybe
UNTP

49 3 ha? (1.5)
ODCQ

50 2 (.hh) he eatin' (.)
he eating 'is food dinner (1)
(laugh=.5) he eatin' 'is food dinner
51 3 @ @ // @ @ @
52 1 wii:*

a le
TAKE IT

53 2 apple
EXAC
54 1 lep pita nɔi/nge/
TAKE KNOWN NOT

55 4 /apa/ ande ande
APPLE maybe COMING COMING
56 2 ah?
ODCQ
57 4 /apa/ aja
APPLE maybe COME

58 2 o birdie khandi /bɔsi/
THAT EATING BISCUIT maybe
59 1 wii:
EXCL
60 2 I'm not bird
UNTP
61 1 flying // @ @
UNTP
62 3 @ @ @ @ @
UNTP
I'M NOT A MAN & maybe
63 2 a de' (3)
LOOK
64 ? ya goin' leave 'im there? (4)
/dia/ pinda /dia dia/ //@
DRINKING
65 4 /ə/ gɔndi# kita (2)
HE DIRTY DONE
66 2 hɔtte' (1) hɔtte'
STOP-IT STOP-IT
67 ? he wants
ASAT
68 3 no:: I /dark/ nothin'
PFPR
70 ? no hɔtte'
PFPR
NO STOP-IT
70 4 o khand a
HE EATING AUX
71 ? I can't see @
ASIR
72 3 Harprit bɔz' ja (2)
SIT
73 1 /eə dɔ jat gɔd/ (2)
DID IT maybe

ahhh=(1) @ @
EXCL
74 2 meat khand vi meat (1) eat
EAT ALSO
75 1 cal onu meat pade (.5) meat
GO-ON TO-IT GIVE

- 302 -
pata nahi k the /khullhida/ hana?

KNOWN-NOT WHERE OPEN qtag

meh nu vi de na
to-me also give

gi' me another (1.5)
na
no

ma nahi kaarna teacher dekhi a (11)
I NOT DOING LOOKING

76 2 there sweet birdie
77 1 the food there @ @ @ it (2)
78 3 /kre/ (.)

79 1 um?
80 3 a le
take it

81 1 nahi (.5)
no

/fina/ (1.5) enu vi p ta
TO-HIM ALSO KNOWN

82 3 bag me new pant pai a
yes I Wearing

me nu (1) new pant pai a (2)
I WEARING

me disco te jana (6)
I PF GO

83 1 cini cini ki honda a? (1.5)
SUGAR SUGAR WHAT IS AUX (doesn't know the word cini)

84 2 water look/

85 3 dekh pani pinde a
LOOK WATER DRINKING (pl) AUX

86 2 huh?
87 3 pani pinde (1)
WATER DRINKING

they can fly karde
DO

ma vi /vina/
I ALSO (pinda=DRINK prob)

- 303 -
WATER DRINKING CONTINUES

DINNER ALSO NOW DRINKING

I'VE GOT ONE

IT'S ALL PROB

ONE MINUTE YOU DROP

TAKE YOURS

YOUR MORE

SCARF

I'VE GOT A SCARF
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>hello (laugh=1)</td>
<td>ODAG</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>hello</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>owh(=.5) ho</td>
<td>EXCL</td>
</tr>
<tr>
<td>3</td>
<td>1&amp;2</td>
<td>wwh huh (2) wwh huh (4) wwh huh, wwh huh, wwh huh (2)</td>
<td>EXCL</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>not (.) not (.) with (1.5) not with the d[8]kks* TWIG OF PIECE OF STRAW</td>
<td>PFPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>// (laugh=4) (2)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>what?</td>
<td>ODCQ</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>not with the d[8]kks* TWIG</td>
<td>RSCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(laug/#gh=5)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>?</td>
<td>shur up</td>
<td>PFPR</td>
</tr>
<tr>
<td>8</td>
<td>1/2</td>
<td>wwh(=1) (1) wwh wwh</td>
<td>EXCL</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>have a drink /3/ water</td>
<td>RQAC</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>here y'are (.) here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wwh (1)</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can't catch my hand</td>
<td>PFTE</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>hello (.)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here y'are=</td>
<td>EXAC</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>here y'are</td>
<td>EXAC</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>here y'are (4)</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wwh(=.5) (18)</td>
<td>EXCL</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>teacher (.5) we done finished (4)</td>
<td>ODAG+ASDC</td>
</tr>
<tr>
<td>15</td>
<td>?</td>
<td>hello</td>
<td>ODAG</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>wwh hh</td>
<td>EXCL</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>wwh hh</td>
<td>EXCL</td>
</tr>
<tr>
<td>18</td>
<td>3</td>
<td>wwh hh</td>
<td>EXCL</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>wwh hh</td>
<td>EXCL</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
<td>wwh hh</td>
<td>EXCL</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>I sit down (2)</td>
<td>ASIR</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>wh hh, who hh (? wh hh (1.5) //no nothing*</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>teacher we've finished# teacher we've finished we've finished</td>
<td>ODAG+ASDC</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>teacher we've finished#</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>wwh hh# (4) eh (1)</td>
<td>EXCL</td>
</tr>
</tbody>
</table>

you have to talk to them (2)
little birds (3.5)

25  3  why d'you 'ave to know dat?  ASRU
26  2  nothing  RSPC


don't talk /si/=  

27  ?  wwh wh  EXCL
    @ @ @  UNTP
    YOU HOLD THAT  
    maybr

28  1  ehh(=1)  EXCL
29  2  no  PPFR
30  1  //'ere y'are  EXAC
31  ?  @ @ # @ (12)  UNTP
   ↑TALK maybr

32  2  (banging) get /ɔ/  UNTP
33  3  @ @ got$ a /fi ɔ/ (1.5)  UNTP
    hey you (3)  ODAG
    tell Harjinder (2)  RQAC

34  4  water  ASID
35  3  it's in der? (.5) @ @ @ (4)  RQCH
   JUST LIKE THAT maybr

36  2  bird  ODAG
37  3  @ @ @ @  UNTP
   YOU'LL HAVE TO PUT IT IN OR 'E WON'T EAT IT maybr from
   intonation
   bird @ @ @ bird (2)  ODAG
   EH LITTLE maybr

38  1  @ @ more  UNTP

39  2  teacher might tell you off (3)  PFWA
    she's out der (4)  ASDC
   O.K.  RSAK

40  3  shall we pick it up @?  RQSU
   THEN maybr

41  ?  no  RSCO negative
42  3  heh (2) heh (2)  EXCL
43  1  put that down  RQAC
   put it down
   2&3  (laugh=1.5)

44  1  teacher might tell you off (1.5)  PFWA
    so pu' it down  ASEX
45  2  no  PPFR
46  1  pu' it down  RQAC

?  @ @  UNTP
47  2  teach-  UNTP

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**DISMANTLED MICROPHONE**

49 1 I'm callin' teacher // /kə/ I am (.5) @ @ ASIR+ASEX

50 3 eh? ODCQ
51 1 I'm callin' teacher ASIR
52 3 why? RQFC
53 1 /kə/ I am RSPC

54 3 why? RQFC
55 1 /kə/ I am RSCL

56 3 why? (3) RQFC
57 1 I won't tell your /fəw/ RSPC

58 3 @ which // one? RQFC

59 1 we've finished (2) ODCQ
   teacher we've finished (2)
   teacher we've finished (2) ASIR
60 2 get down RQAC
61 1 we've finished ASDC
62 3 we /nia/ eat it (2) ASDC
63 1 what? ODCQ
64 2 (laugh=.5) ade ɪ ɡɡɪ bird de ASDC

4 (laugh=2)

65 2 did I hurt you? RQCH
66 3 don't PFFR

67 2 she goin'- UNTP false start

68 1 they gonna be scared of dis (laugh=.5) ASAT
   /sɔl ɡ?/ (laugh=2) RQPM

69 3 // gimme dat RQAC
   gimme dat

70 2 (laugh=.5) no= RSCO negative
71 3 gi' it RQAC
72 2 no you can't (1) ASRU

Hardeep (.)
   you have to throw in a bin (2) ASDC
   dis the bin (4) ASRU

73 3 /wɔt/ piece (3) UNTP
   teacher /ɜ/ finished (.5)
   /ɜI/ 'ave finished (2) ODAG
   we ASDC
   we 'ave finished (1) (laugh=.5) (4)
I've finished
so I am

GROUP D

Tn  Sp  Utterance  C-act

2  (laugh=2) @ @

1  3  e cući te anda a  ASDC  HE SWING ON COMING AUX

2  2  haŋ (1) (noise =1) (3) @ @ (3)  RSAK

3  1  they like @ ing this  ASAT

4  2  me /təta/ ləggda  ASDC
I NOT TOUCHING/FEELING

5  3  məinu nəi  ASIR  TO-ME NOT

6  2  məinu nəi  ASIR  TO-ME NOT

7  3  məinu nəi /t/  EXRP

8  2  məinu nəi  EXRP

9  3  məinu nəi  EXRP

10  1  o khandi a  ASDC  SHE EATING AUX

11  2  haŋ?  ODCQ

12  1  khandi a  RSAK  EATING AUX

13  2  hah  EATING AUX

14  1  [nods]

15  1  does not (1)  UNTP

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16 3 ɪm ɪnɪ dərdi
I NOT SCARED
ASIR

17 1 ɪm ɪnɪ
I ALSO NOT
ASIR

18 3 tʊ ɪnɪ
YOU ALSO NOT
ASIR

19 4 ɪm ɪnɪ (3)
I ALSO NOT
ASIR

20 1 ā /messy/ hо jəndi a
HE BECOMING AUX
ASEV

21 1 ɪ ləndi hana?
SWING HAVING qtag
ASDC+RQCH

22 3 hah?
ODCQ

23 1 swing ləndi si
HAVE AUX(past)
RSCL

24 5 ? hah (2)
RSAK

25 1 they're eating (4)
ASDC

26 3 have dat one (3)
ASDC

27 2 məɪnʊ ʃər dər ləggda ā
TO-ME AGAIN SCARED BEGIN AUX
ASIR

28 4 məɪnʊ ɣəi
TO-ME NOT
ASIR

29 3 məɪnʊ vi ɣəi
TO-ME ALSO NOT
ASIR

dər məɪnʊ ɣəi (.hh) dər ləggda
SCARED TO-ME NOT SCARED BEGIN

30 2 e təɪnʊ tə na? (2)
PN. TO-YOU EM. qtag?
RQCH

31 3 hæg (2)
YES
RSCH

32 4 e dəndi ɣəi pake na?
SHE GIVING NOT FULL qtag
ASDC+RQCH

33 3 ɣəi məɪnʊ ɣəi
NO TO-ME NO
I know
RSCH

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me médì a
i scared aux

54 3 me ní ñõrdìdi/
i not scared

55 1 when you open the door
they're gonna // fly away

56 4 (laugh=1) ø bird
57 1/2 /õõ ãtr/ something
58 4 look (4)

59 1 eat it
here birdie//:

60 4 ki kõrdì e
what doing aux

61 1 bird eat it

62 2 me ní ñõrdì handì (2)
i not scared aux

63 3 khandì do
eating two

64 2 eh?

65 3 ethe víc // khandì do
here in eating two

66 2 khandì /t/ hard /bôte/ khandà /ôca/ (2)
eating

67 4 (laugh=1) /da jande vt/

68 1 eh?

69 3 hor hor kroc
more why

70 4 look (1.5)

71 3 ãlìgà
there-are-some

72 4 e víc hor bana (1.5)
in more víc

73 4 e hor ììna
more take

74 1 êì /tela/
what

75 4 missed ya

76 1 birdie

77 3 bas bas
enough enough

78 2 bas
enough

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79 3 nài hor lela (2) RQAC

80 1 @ dekho ODAG

81 3 birdie (1) khala (0.5) birdie EAT-IT ODAG+RQAC

82 4 khalà bird EAT-IT RQAC

83 2 it could happen ASEX

84 4 look ODAG

85 2 put it EXAC

86 4 aahahah (=1) EXCL

87 2 mere kolo pra (laugh=1) ASDC

88 4 /wata gime ko/ UNTP

89 3 mere kol nài ASDC

90 ? nài mere kol ASDC

91 ? a dàndavala PFJO

92 4 sade kol finished a bana? (2) ASDC+RQCH

93 1 khande a ASDC

94 4 s mere kol b?Igia ASDC

95 1 ah (2) EXCL

96 ? eat RQAC

97 1/2 he can't hit ya (3) ASAT

98 ?1 eat /diz/ (5) RQAC

99 3 come on /fà i:/: bir:die bir: die(1) ODAG

100 4 eat it RQAC

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101 2 birdie  ODAG
102 3 birdie ea' it  ODAG+RQAC
103 4 ea' it  RQAC
283 (laugh=3)
104 1 khande a  ASDC
105 2 nice kṛḍī /cōldī/ nice a  ASEV

106 3 o /pātri/ pani pindi a  ASDC
107 2 hā? (1)
108 3 o pani pindi a  RSCL
109 2 o dhulha pindē dhulha pindi  ASDC

110 4 /a de cde vtr t̪a/
111 3 ho ho  ODAG
112 2 mera dadi nəi  ASDC
? @ @ @  UNTP
113 4 @ @ @ // mṛca khanda  UNTP
114 3 mera dadi m- m- mera dadi eee  UNTP
115 2 meri mami vi mṛca khandi // @ @ @ @  ASDC
? @ @ @ @  UNTP
116 4 meri mami eh! eh!  ODAG
meri mami vi mṛca khandi  ASDC
dal vi khandi  ASDC
117 2 meri /ene/
meri mṛca eni siddha eni mṛca khandi  ASDC
meri mami vi mṛca khandi  ASDC
me vi mṛca khandi a  ASDC
118 3 mera (.hh) dadi car khande a  ASDC
119 2 mera dadi vi me vi khandi car  PFCL
120 3 two /nə/ two  ASDC
121 4 mera dadi khanda car
    MY DAD EAT FOUR
    ASDC

2 (laugh=2)

122 4 /roti tu/ (1) ladu
    ROTI TOO PROD INDIAN-SWEETS
    ASDC

123 2 ladu (laugh=.5)
    RSAK

124 4 m- me- mer- mera brother kInda /ha/
    MY SAYS

2 (laughs=1)
    ? /ha tə/
    UNTP

125 4 mera brother kInda /təd/ /təgiə/
    MY SAYS
    PFJO

126 2 mera dadi kInda /təd/
    MY DAD SAYS
    PFJO

127 3 (laughs=2) mera dadi nai kia
    MY DAD NOT SAID
    ASDC

128 1 ja tera brother
    GO(YOUR)
    RQAC

ja mere kər every day anda nere ma
    HE MY HOUSE COMES NEAR I
    ASEX

fer /brənda/
    THEN (anda=COME or b nda=MAKE)

129 3 mera dadi /min/
    MY DAD MEAN maybe
    ASDC

mera sina regə tokə gra
    MY SINA RADIO BROKEN
    (SINA=SOUTHALL RADIO STATION)

(SINA=SOUTHALL RADIO STATION)
<table>
<thead>
<tr>
<th>Tn</th>
<th>Sp</th>
<th>Utterance</th>
<th>C-act</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>//hello birds</td>
<td>ODAG</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>hello birds* (2)</td>
<td>ODAG</td>
</tr>
<tr>
<td>3</td>
<td>?</td>
<td>you give 'im these</td>
<td>RQAC</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>I think she's gonna b- (1)</td>
<td>ASIR/ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hello birds</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(squeal=.5) (laugh=1) (3) /əs/ (2)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>/ʃvə/ this /pɹ/</td>
<td>EXAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PIECE maybe</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>?</td>
<td>sure (4)</td>
<td>RSAK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ha ha</td>
<td>EXCL</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>he's scareds of us (5)</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>you're not @ scared of /pɹə/</td>
<td>ASAT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I'm /ɪtɪn// @</td>
<td>UNTP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EATING SOMETHING prob</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>hello #: birds (5)</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>//I like the birds</td>
<td>ASIR</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>let's say one two three#</td>
<td>RQSU</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>hello birds</td>
<td>ODAG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hello// birds</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>hello birds</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>what dis?#</td>
<td>RQFR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>one two three (. )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>one two three (laugh=1)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>I fed those bird (4)</td>
<td>ASDC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/əʃi ɹə/ dat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>give us</td>
<td>RQAC</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>nothing</td>
<td>RSQI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>say one two three into der</td>
<td>RQAC</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>one two three (3)</td>
<td>RSCO</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>go to toilet @ @ @ @</td>
<td>ASIR</td>
</tr>
<tr>
<td>16</td>
<td>4</td>
<td>eat it little /lɪtə/</td>
<td>RQAC</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>uh (2) uh</td>
<td>EXCL</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>(laugh=2) (2)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>?</td>
<td>@ do and do it again (6)</td>
<td>RQAC</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>owh owh</td>
<td>EXCL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I'm scared of birds</td>
<td>ASIR</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>so I am</td>
<td>RSAK</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
<td>don't eat /ə/ dat (.)</td>
<td>RQAC negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>he's dead then</td>
<td>ASEX</td>
</tr>
</tbody>
</table>
23 3 birds (. ) birds

24 1 oh // na t/ you

25 3 birds# (1.5) birds birds

26 4 birdie birdies

27 3 birds birds birds /// birds birds

28 4 birds#

29 3 bl::rds bir:: br:: brr brr

30 1 I've put mines in
so they can eat it (3)

31 3 brrrr

32 3 bird (2) birds (1) birds birds (4)
/pa p/ (6.5)
dat bother 'er (9)

33 4 ahh Har::deep:: /2/ (10)

34 1 here birds (3) here /bl/ (2) birds (3)

35 2 I've put mines in ASDC

36 2 yeah they are

37 2 birds /iuhi/ (=1) birds

38 3 @ @

39 2 I gonna miss-
we're gonna miss our s- (. ) our story
aren't we? (2.5)

40 3 /a/ give i' /a/ me (. )
PLease prop to
er- gimme dat // (.5)# gimme dat (2)

41 3 birds=

42 2 now //@ @ @ @ @ at me

43 1 birds# birds have // it all

44 2 you haven't opened# it for Sandeep
// Gavinder

45 1 watch /a/ feed dem (2)

46 4 look /j es/ inside this (4) (noise=2)

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47 2 heh:: EXCL
they're gonna stand on there (3) ASAT
48 ?3 I know they could (2) RSAK
49 1 arrr(=1) EXCL
they're puttin' their leaves in my eye ASDC
(laugh=.5)
50 4 what? ODCQ
51 1 /mInId/ (. ) they make erm (2) UNTP
ME KNOW maybe
52 4 /l@s/ inside all this (. ) RQSU
LET'S maybe
/e/
HERE maybe
53 2 yeah RSAK
54 3/1 @ @ this one UNTP
55 4 what? ODCQ
56 3/1 oh n' can't ASIR
57 4 birds ODA
look at the floor (3) RQAC
le' clean the floor ( . ) floor RQSU
58 3 gimme this (2) RQAC
59 4 look at ( . ) this now RQAC
60 1 yeah (2) RSCO
don't do it (2) RQAC negative
61 4 where's mine? (3) RQPR
where's your one? (2) RQPR
62 2 I've got it ODAG
look (1)
here's mine (3) ASDC
63 1 ahh(=1) EXCL
I saw der legs (2) ASDC
64 4 where? RQPR
65 1 der (4) RSVP
66 3 // I've finished* mine (3) ASDC
1 (noise)*
67 3 let's touch /d2/ one RQSU
68 2 I've finished mine ASDC
69 1 ah EXCL
I touched dem (7) ASDC
70 4 don't /d2 2/ (5) RSVP
2  don't /də/ (2)  PFPR
   ahh(=.5) (2) ohh(=.5) (6)  EXCL

[pen drops in cage]
now we can't (.hh) do the register  ASEX
72 7 /d / do it (2)
   DIDN'T  UNTP

2  go and tell (.hh) the new teacher  RQAC
   we'll tell dem it (.) yeah (2)  RQSU+RSAK
Mary (.hh) Mary might /id/ dat (2)  NEED
   Mary might /id/ dat (1.5)  ASAT

3  you bin lookin' through the window?  RQCH

2  they might-
   they might lose the pen now, won't they (2)  ASEX+RQCH
2  yeah  RSCH
2  then they can't do the register  ASRU

3  what's this /w2-/  RQPR
   lemme see what's this  RQPM
   Mrs Spann come 'ere (5)  RQAC

2  I wonder what's in dat (.)
in dis (1) box in dat box (.5)
I wonder what (.5) in dat box  ASIR
   look look at somethin' // @ dat box  RQAC
80 1  shall I# go an' see  RQSU
81 2  no  RSOC negative
82 1  go on  RQAC
83 2  no (8)  RSOC negative
   (banging)

4  eat it all up  RQAC
85 1  eat it all up (2)  EXRP
86 4  don't hit it  RQAC negative
   he eating now  ASDC

(banging=4) (1.5)

87 4  look a'
   RQAC
88 3  shall we pick (. ) it up  RQSU
   let me pick i' (5.5) (.hh) (1.5)  RQPM

89 4  ki kita?
   WHAT DID-YOU-DO  RQPR

90 3  kwé né (3)  RSPR
   NOTHING

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91  2  you shouldn't do that (.).
     it's bad
     ASEU
     ASEV

92  1  his /kərs/ going all in it (1.5)
     ASDC

93  4  where?
     RQPR

94  1  there
     RSRA

95  4  so (.hh) all you look 'ere (3)
     RQAC

96  1  who?
     ODCQ

97  2  yeah Mary
     RSCH

98  4  yeah
     RSAK

99  1  yeah Mary
     RSAK

100 ?  Mary (2)
     RSAK

? @ @ (5)
     UNTP

101  2  I wonder what's in that box? (2)
     ASIR

102  1  let's go an' see (1.5)
     RQSU

103  2  no
teacher's @ @
     RSCO
     negative
     UNTP

104  4  Mary come den (13)
     ASAT

105  1  ahh (=2)
     EXCL

106  4  what's happened?
     RQPR

107  1  look (2)
     ODAG

108  4  show Mary in it
     RQSU

109  1  oh
     EXCL

110  4  who did it?
     RQPR

111  1  [shrugs]

112  2  I didn't
     RSRA

113  4  I didn't
     RSRA

     you are bana
     g tæ
     ASDC
     RQCH

114  2  // no me
     RSCH

115  3  one two three# @ @ @
     PFJQ

116  4  no
     RSAK

117  2  Sandeep
     ASDC
     I didn't
     RSAG
     negative

118  4  Sandeep did it
     ASDC

119  1  I /ər/ maked it
     HAVE

     I fixed it now (2)
     ASDC

120  4  /ləs/ (2) /ləs pəns/ (9)
     UNTP
let's (1) do up down=
no

let's pick them up (1.5)
no (2)

ahh(=.5)
I'm worried about the pen (1)
ah (=1.5)

now we can't do the register (1.5) hana

RQSU
ESCO negative
RQSU
PFPR
EXCL
ASIR
EXCL
ASRU+EQCH
GROUP F

Ta  Sp  Utterance  C-act
    (10)  
1  2  sade na mare /hɔ/  RQAC
   US NOT HIT
2  ?2  mæ /tɔdɔ/ marna (1) hana (.hh)  ASIR+RQCH
   I HIT Qtag
   ηsiŋ n̂i k̄̃r̆na k̂̃r̆ke d̂̃r̆ l̂̃gĝ̃a b̂̃r̆ga
   WE NOT DO BECAUSE SCARED BEGIN TO-BE
3  1  oh
   hana? ki k̂̃r̆da hana? /si na/ @  RQPR
   Qtag WHAT DOING Qtag
4  2  /œi œi t̂uœ œi/ @  UNTP
   ki kita? (3)  RQPR
   WHAT DID
5  1  vrc padie
   IN LET'S-PUT
6  ?  eh? (2)  ODCQ
7  2  dekhia? (2)  RQCH
   DID-YOU-SEE?
8  1  e khanda n̂i (1.5)
   ME EATING NOT

p̂̃ro p̂̃ro k̂̃r̆da hana?
   NOISE DOING Qtag
   khanda n̂i k̂̃j n̂i
   EATING NOT SOMETHING NOT
9  2  (noise=.5 + .5) k̂̃r̆da hana?
   DOING Qtag
10  3  /hạŋ̀ri zte k̂̃r̆te ĥ̃ŋ̀ri/
    HUNGRY    HUNGRY
11  2  eh eda k̂̃r̆ (noise x 4)
    LIKE-THIS DO
12  1  o ode upp̄r̄ r̄k̄hi jandi a (1)
    SHE IT ON-TOP PUT (in-the-process-of)
    vrc n̂i pa s̄̃k̄di hana?
    IN NOT PUT ABLE-TO Qtag
13  2  /hane/ vlc pa s̄̃k̄da (. ) hana?
    ME IN PUT ABLE-TO Qtag
    CAN YOU PUT MINE INSIDE
    e sara
    IT ALL
    SHALL I PUT ALL OF IT
14  1  sara panda o
    ALL PUTTING HE
    HE'S PUTTING ALL OF IT IN
    /ote/ upp̄r̄r̄ upp̄r̄ r̄k̄hi jandi a
    PN. ON-TOP ON-TOP PUT (in-the-process-of)
15  3  ms th̄̃le
    I UNDERNEATH
    I'M PUTTING IT UNDERNEATH
16 1 o khanda nāi  
ME EATING NOT  

ode vāc vāc pa /d/  
IT IN IN PUT  

upper /kabte/ dārdi a  
ON-TOP WHY SCARED AUX  

why are you scared of putting it on top  

mē tere koī khārī a  
I YOU BESIDE STAND AUX  

17 3 dekh (1.5)  
LOOK  

18 1 up // @ @ vāc  
IN  

19 3 mē hand thāle: kārda (1)  
I UNDERNEATH DO  

mē thāle kārda hana?  
I PUT-DOWN DO QTAG  

thāle  
PUT-DOWN  

ASIR+RQCH  

20 1 mē cātt maruṅgi @ @  
I QUICKLY WILL-MIT  

21 2 nāi  
NO  

ethe kār ethe kār  
HERE DO HERE DO  

ede upper  
PN. UP  

22 1 fer khalo /cōnga/ // kārke  
THEN EAT NICELY DOING  

23 2 dekh (1.5)  
LOOK  

a vi thāle nu kār (2)  
PN. ALSO DOWN TO DO  

yā upper rākhī jandi andī  
YOU UP PUT (IN-THE-PROCESS-OF)  

24 1 a upper jād /thālerE/ hana? vēc pāo (2)  
PN. UP WHEN DOWN QTAG IN PUT  

THE ONES ON TOP PUT INSIDE  

25 3 sādhe tū mār pade  
STRAIGHT YOU INSIDE PUT  

um? (4) uh  

26 1 [nods]  

27 2 eh?  

28 1 e kārie  
LET'S-DO (SUBJ)  

ASIR  

ASIR  

RQAC  

RQAC  

RQPR  

RQAC  

RQAC  

ODAG  

RQAC  

ASDC  

RQSU  

ASDC  

ODAG  

ASDC  

RQAC  

RQSU  

RQCH  

RQAC  

RQAC  

RQAC  

RQAC  

ODCQ  

RSCS
[nods]

fer cal
THEN GO
LET'S GO

lela /pera/
TAKE SWEET

e kaf nāi kārna
IT SOMETHING NOT DO
IT WON'T DO ANYTHING

me tere kāl rākkhādi
I YOU BESIDE PUT
I'M PUTTING IT NEXT TO YOU

/Tndōp/ e chōta (.) e chōti hārgi othe
NAME IT SMALL(m) IT SMALL (f) IS THERE

(.hh) see (1.5)

sar' (.) kha bha
ALL EAT NOW

cālo dekhlā
LET'S-GO LOOK

no I'm not goin' @@
RSCO negative

/kol/ asīj apa pake
WE OURSELVES PUT

// me sara# ɔrɔna
I ALL TAKE

/naci/#

I wanna pu' dat @ (2)

ah awh (laugh=1) (3)
EXCL

me chōti pae
I LITTLE(ONES) PUT

put 'im in the /sittidium/ (1)
SITTING ROOM maybe

ethe tɔk (1) me ene /pāda/ @ (.)
HERE UNTIL I THIS-MUCH PUT

suttke /təuru/
THROWING WITHOUT

sutt- suttke /təuru/ kərida (.) məinu
THROWING WITHOUT GOING TO-ME

me/təuru/ suttādi (4)
I WITHOUT THROWING

mm chōti /ata/ kārke /talim/ (2)
I LITTLE ? BECAUSE OF ?

anda nāi (2)
COMING NOT

jakir fer tū thēle agia sutt (2)
IF THEN YOU DOWN COMING THROW
WHAT'S GOING TO HAPPEN IF IT COMES DOWN
44 1 uppφr thφle a janda abd
    UP DOWN COMING IT
    IT KEEPS COMING UP AND DOWN

45 3 bah (22.5)

46 2 //me /ede/ vtC* padi
    I THERE IN PUT
3 @ @ @ I

47 2 uppφr ode vtC
    UP IT IN
/pu (3)
    PUT 'EM IN

48 1 oi (=1) (.) ki kφrda pφra?(1.5)
    WHAT DOING (COMPOUND EM)
RQPR

49 ?1 sanu /kahte/ dφsda hundai a (2)
    TO-US WHY TELLING AUX
RQPC

50 3 @ @ @ @ (5)

51 1 sade hundai ede (2.5)
    OURS IS LIKE THIS
ASDC

52 2 vtC pade (2)
    IN PUT
RQAC

53 1 hundai nd i /ed3/
    HAPPENING NOT IT
ASDC

54 2 a black one tφnin no good khanda
    TO-YOU EATING
ASEV

55 ? nφi
    NO
RSAK

56 2 a white one?

57 1 white one nφi khanda
    NOT EATING
ASDC

58 2 white one tφ chicken Ta
    EM. IS
ASDC

59 1 chicken na hana?
    NOT ATE
ASDC+RQCH

60 2 tφ/tφn black one vi chicken Ta (3)
    EM. EM. ALSO IS
ASDC

61 1 ssssh (=1)

62 2 ethe /tφuru/ suttαna (4)
    HERE WITHOUT THROW
    DON'T THROW OVER HERE
RQAC

63 1 sshu

64 2 tφnin na
    TO-YOU NOT
    rahande
    LEAVE-IT
RQAC

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bolde a
SPEAKING AUX

65 1 e gällen kärde song kärde a?
THEY TALK DOING DOING AUX
ARE THEY TALKING OR SINGING?

66 2 @ @ @ e gällen kärde
THEY TALK DOING

tu /turu/ @ // @ @ @
YOU ?

67 3 /ata kata la/
NOISE

68 2 e kör
THIS DO

69 1@2 /ta da ta ta ta ta /
NOISES

70 3 ssh (=.5) ssh(=.5)
EXCL

71 1 /umä ta ta do/ (6)
UNTPO

72 2 @ @ @
UNTPO

i'll do it maybe

73 1 pāta nåi ḥand? (1)
known not get

we don't know, do we?
ti ti ti ti ti (4)

pade vtc mera
PUT IN MINE
PUT MY SHARE IN AS WELL

74 3 mera pana?
MINPUTTING
DO YOU WANT TO PUT MINE

75 1 nåi
NO

TU nåi pa såkda
YOU NOT PUT ABLE-TO

76 3 tu /mi/ pani @ (1.5)
YOU WATER

77 1 mere /cæk/ vi nåi marda
MY T ALSO NOT HIT

kuf nåi käruga (2)
SOMETHING NOT WILL DO
IT WON'T DO ANYTHING

78 2 //mere vi nåi
MY ALSO NOT
IT WON'T DO IT TO ME EITHER

79 1 @ @ @ mere vi nåi
MY ALSO NOT

80 3 // mere vi nåi#
ASAT

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GROUP G

Tn  Sp  Utterance                                                                                           C-act
1  2  @ @ @ bortha sath                                                   ASDC
2  3  /ha/ dekh sari kh̃alatī (2)                                        ODAG+ASDC
3  1  ho (1) mar̃angi vah                                               EXCL
      will hit you                                                      PFVA
4  3  here's the last /t waive/                                       ASDC
5  1  throw in the @ (5)                                              RQAC
6  2  /ca/ a                                                          UNTP
7  1  here ya are                                                     EXAC
8  3  tūvi k̑r
      you also do                                                      RQAC
      ho                                                             EXCL
      e nī k̑rdi (2)                                                   ASDC
9  2  k̑r̕la uh                                                        RQAC
10  3  jadag marda hunda fer k̑rīda                                    RQSU
      when hit do then doing                                         RQAC
      when it hits you then do it                                    RQAC
      khala (3)                                                       RQAC
      eat-it                                                          RQAC
11  2  hah(=1)                                                        EXCL
12  3  you can feed them                                              ASAT
      it's /đt/ in der                                               ASEV
      hot                                                             ASEV
13  1  I can't see // it properly                                    ASIR
14  3  calo                                                          RQAC
      let's-go                                                        RQAC
      ethes /phala/ hun (2)                                          RQAC
      here hold now                                                  RQAC
15  1  hello birds (1)                                                ODAG
      nice bird (1.5)                                                ASEV
16  3  eat                                                           RQAC
17  1  eat birds                                                     RQAC
18  3  I like small birds not big birds (.5)                           ASIR
      hana?                                                           RQCH
19  2  I like the big birds                                           RSAG disagree
20  3  and me                                                         RSAG disagree
21  1  I like the little birds                                        RSAG disagree
22 3 I like small birds (.) not big birds (2) RSAG

ahh(.5) (laugh=.5) (5) EXCL
eat RQAC

khande a dekha ASDC+RQCH
EATING AUX LOOK
DID YOU SEE THEM EATING

23 2 baq YES RSCH

like kërde a
GOING (pl)

24 3 /ha ko/ /ata/ sâmose la ASID

these SAMSOS ARE

25 2 baq YES RSAK

26 1 ciriag birds nãi a ciriag a ASID

BIRDS(pl) NOT ARE BIRDS ARE

27 3 birds nãi a ciriag a RSAK

NOT ARE BIRDS ARE

28 1 baq // ciriag RSAK

YES BIRDS

29 3 ciriag hana hana ciriag a? RSAK

BIRDS Qtag Qtag BIRDS ARE

30 2 ho EXCL

31 3 dekhe dullhi jandi a ODAG+ASDC

LOOK SPILLING (in-the-process-of) AUX

32 2 kewn? RQPR

WHO

33 3 ana cîtt//Ô RQAC
COME QUICKLY

34 1 mere ko dolly he kîr/pe/ ASDC
MY TO IS HOME-AT

me nãi ñina ASDC
I NOT TAKE

35 3 tũ kîrna nãi (1.5) RQCH
YOU DO NOT?
DO'NT YOU WANT? (to silent child)

OH:: EXCL
chota larna si tk jtha
LITTLE (ONE) GET AUX(PAST) LIKE-THE

36 2  // @ @ @ @
UNT

37 3 @ @ @ asiq t@ kuj ndi kia
WE EM SOMETHING NOT SAID
WE DIDN'T SAY ANYTHING TO HER (TO UPSET HER)

38 2 tainu ki ho gta
TO-YOU WHAT HAPPENED

39 3 ha
OH
/ tce aw der/
TEACHER OUT THERE
/ @ @ siti/ t@ kuj vi ndi krdi
TEACHER PROD EM SOMETHING EM NOT DOING
THAT TEACHER'S NOT DOING ANYTHING

40 2 [nods] fer hor lvenge, apan
THEN MORE WILL-GET WE

41 1 // hello birds
ODAG
42 3 hello birds
ODAG

43 2 mere chrilha ntkol gta mere ke
MY SHELL DROPPED MY OF

44 3 ho! a dekh
OH LOOK
a kera krdia
IT WHICH DONE

45 2 ndi
NO

- 329 -
o ciri māi kita a  
THAT BIRD(1) NOT DO (PAST) AUX
sara khəlate  
ALL MESS

46 3  a ciri naughty a  
THAT BIRD IS
47 1  ciri naughty ko b nada c ra  
BIRD WHY MAKING BIRD(1)

48 3  lela  
TAKE-IT
49 1  lela  
TAKE-IT
50 2  ki kər'?  
WHAT DO
51 3  /i rətən/  @ (laugh=1) (2) (laugh=4)  
HE ROTTEN MAYBE

je onu pətə /ləgəio/  
IF TO-HER FOUND OUT  
(pətə bə jana=TO FIND OUT)  
I WONDER WHAT WILL HAPPEN

52 2  eh?  
53 3  andi a  
COMING AUX (1)
54 2  pick up it  @  @  @  

55 1  hello  
56 3  hello ciri  
57 2  hello hello  
58 1  //hello  
59 3  I'm pickin' you up /son gəd/ you up  
here kərda /lie/  
DOING
/hə/ @ kərdi @ @ ciriəŋ  
DOING BIRDS

cəl kər cəlie  
MOVE DO LET'S-MOVE
ethe ho gəra  
HERE HAPPENED
bəh  

60 2  o a ləgəia (2)  
SHE COME ABOUT-TO
61 1  swing a ethe /swəŋi/  
IS HERE SWING

62 3  ena khanda pəla dinner  
HIM EAT FIRST
LET HIM EAT HIS DINNER FIRST
63 1  khanda @  
EATING

- 330 -
64 3 /ona sala sitād/ you see
   a khanda pāzla pukh lāggi a
   HE EAT FIRST HUNGER BEGIN AUX
   /ān ān/ (1.5) /pā pā/
   AND THEN
   cīriāq
   BIRDS
   pukh lāggi a
   HUNGER BEGIN AUX
   khala fer
   EAT THEN
   
   a dekh uppār cāl ge
   IT LOOK UP GONE
   
65 2 uppār
   UP
   hum thāle cāl ge (3)
   NOW DOWN GONE
   
66 3 khala
   EAT-IT
   
67 1 dekh khala=
   LOOK EAT
   
68 2 thāle sade jande a, thāle
   DOWN OURS KEEP-ON AUX DOWN
   
69 3 e jande /tōws/ bana?=
   FN. GOING PUSH maybe get=
   ASDC+RQCH
   
70 2 hāh?
   ODCQ
   ? /tōws ahe/ @ @ @ @ @ @ @
   UNTP
   
71 2 thāle sutte ae (.5) thāle
   DOWN THROW AUX DOWN
   RQSU
   owh(=.5) (2) (laugh=.5)
   EXCL
   
72 2/3 /kōwī xu/ thāle / mānu/
   DOWN
   UNTP
   
73 1 sare thāle a (2)
   ALL DOWN ARE
   ASDC
   
74 3 nāi kōri jao
   NOT DO KEEP-ON
   
75 2 mere nāi
   MY NOT
   RSAG disagree
Dekh a mera othe khala pia

Look aux my there eat (continue)

Othe dorgi
There scared

76 3 one one ade suttie
That-one that-one it throw

77 2 baap?
What

78 3 a
Fn

79 2 ade suttie
It throw

80 3 khal ode
Eat his

Bo::

81 2 kia ba gta?
What happened

82 3 e khandi nahi /ha/
She eating not

83 2 ki?
What

84 3 a
Fn

85 2 khande
Eating (p1)
he eatin'

[bird cage falls down]

Ohh(=1) ahh(=1) (3)

86 1 ki kita?
What did

87 3 tu' eda suttina nahi si
You like-this throw not aux(past)
You shouldn't have thrown it like that
tu' suttie
You threw
one khala (.5)
Fn Eat
It has eaten it

Eeh birds

- 332 -
GROUP H

Tn  Sp  Utterance                      C-act
(4)   
1  1  e ki  kərdi  a               RQPR
    SHE WHAT DOING AUX
    marna /kera jːʃ/               UNTP
    HITTING
    khande  a (13)                ASDC
    EATING(1) AUX
2  3  ah ah look                   ODAG
    nice bird                      ASEV
3  4  yeah nice (.) bird           RSAK
4  3  Ida / dəɡri/                ASDC
    LIKE-THIS [FLYING ACTION]
    e  eda  kərdi  hana              ASDC+RQCH
    SHE LIKE-THIS DOING QTA
    e  // swing*  hana             ASID+RQCH
    IT QTA
5  ?2  oops*                        EXCL
    swing (1) hh (2) hhh hm (7)    RSAK
6  3  here /tək ː tək  kə kə də / /kək kək/ (2)
    NOISES
    chicki chicki chicki chicki (2)  ODAG
7  ?  /lit/                         RQPR
8  2  tu kɪtthe ? // chicki chicki  RQPR
    YOU WHERE
9  4  kia kərtsa?  (2)             RQPR
10  2  /cəkə  cəkə/  NOISES         UNTP
11  3  cəkə  cəkə/  NOISES         UNTP
12  4  /ʃi  ʃi  bb/                UNTP
    I AM LOOK MAYBE
13  ?  huh?                         ODCQ
14  2  chicki chicki                ODAG
15  ?  /kit  ʃi  kə  ʃi  ə  ə  ə     UNTP
16  4  ʃi  mə tənu  marunga         ASIR
    TODAY I TO-YOU WILL-HIT

17  1  ah  /ʃi/  kəʃə pari  gła  (3)  ASDC
    SOMEWHAT ACROSS WENT
18  3  sanu nəi                    RQAC
    TO-US NOT
    oh /hi/ həwə marda sanu       ASDC
    WIND HITTING US
    BLOWING
    ah
    tə sanu həwə marda?
    you TO-US WIND HITTING
    Are YOU BLOWING AT US
    sanu // həwə*               RQCH
    TO-US WIND

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19 4 /wa wa/* (2) UNTP
20 3 /v vol likna ne/ (3) UNTP
21 1 /w i/ ah UNTP
   DO IT maybe
22 3 oh ah EXCL
   sorry ODFM
23 2 uh oh EXCL
   / she sige/ // (laugh=4)
   @ @ UNTP
24 2/4 come on chicki chicki RQAC+ODAG
25 1 oh (laugh=1) EXCL
26 2 ah (2) EXCL
27 1 oh bird ODAG
28 2 here y'are EXAC
29 4 /sar/ khanda hana ASDC+RQCH
   /@ beni/ /ki laa/ NOISES
   ah owh (laugh=1) ah ooh ooh ooh EXCL
30 1 o kəinda me vi jana ASDC
   ME SAYS I ALSO GO
   me vi ethe bəəθna /i də ena/ (1) ASIR
   I ALSO HERE SIT
   tag /də/w/ kholda (3) UNTP
   THEN OPEN
   oh EXCL
31 2 eh ehh EXCL
32 3 e ki kərdi a? RQPR
   YOU WHAT DOING AUX
   bat TALK
33 1 vəddi /e/ ho gi ASDC
   BIG HAPPENED
   IT'S GOT BIGGER
34 2 nəi (2) RSAG negative NO
35 4 o ganda (2) @ @ (2) ASDC
   ME SINGING
   bəəθno (4) //@ RQAC
   SIT
36 3 mera nəi PPFR
   MINE NOT
   pinda pi pi RIQAC
   DRINKING DRINK DRINK
   nəi (4) NO PPFR
37 2 pinda DRINK RQAC
38 3 end of main (2) ASDC
39 2 said mummi ASDC
40 3 said mummi, say mum (2) RSAK

41 2 khandi a @ (2) ASDC

42 2 do I have to (2) RQCH to self
I /d#/ have to go der or not (2) ASEX to self
DIN'T

43 4 birdie /pi gi/ (7) ASDC

44 1 come on bird (12) (laugh=1) RQAC

45 2 dekhdi a sade vol (2) ASDC

46 1 khandi ha onu feeding kita hana
SAYING AUX FN DID QTAG
/fi// o /gad/ ho gta (4) ASEX
FEEDING FN good good happened
IF YOU HAVE IT'S GOOD

47 3 /elo/ ganja (9) BOLD-HEADED

48 1 enu /s3l' w ges / dedi? RQSU
TO-HIM GIVE

49 2 [nods] RSCO

50 1 eh? ODCQ

51 3 ne le
NO

52 1 huh? ODCQ

53 3 ms khendi uppar c7l ja (3) RSCL
I SAYING UP GO

54 4 ms vi ja s#kdi hana?
I ALSO GO ABLE-TO QTAG
ASIR+RQCH

55 3 /32/
NO
ms ja ne le s#kda
I GO NOT ABLE-TO
ASIR

56 4 I finished my 'pple ASDC

57 2 ene kta (2) ASDC
HE SAID
Owh EXCL

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78 4 hello (9) ODAG
79 1 owh (.hh) EXCL
my can't ASIR
80 4 /ir p il/ UNTP
81 2 ah (2) /\d/ vTc pana RQAC
*the- THERE IN PUT
82 1 ah two birds ODAG
83 4/3 ah @ @ birdie ODAG
84 1 bird (2) ODAG
85 3 hello hello ODAG
86 1 hello hello ODAG
? @ @ @ UNTP
87 ? hey ODAG
? @ UNTP
88 3 hello hello ODAG
? @ @ (2) UNTP
89 3 hello (5) ODAG
90 4 khala /ti/
EAT-IT
RQAC
? @ @ @ UNTP
91 4 khala
EAT-IT
RQAC

92 3 /cori/ pafe?
RQSU
STORY PUT(PIP)
SHALL WE PUT
look (1) story ODAG+ASID
\L Ida di story r\khugi ASIR
TAKE LIKE-THIS WILL-PUT
93 2 @ @ @ @ UNTP
94 3 @ Ida di story /dekh\na/ RQAC
LIKE-THIS WILL-SHOW
95 2 [nods] RSCO
96 3 ha\ r\khungi ASIR
YES I-WILL-PUT
I'LL KEEP IT HERE

97 1 let me see it (2)
RQPM
let me see it there
a le
IT TAKE
RQAC
a nji
THIS NOT
RQAC negative
a t\inu @ @
THIS-ONE TO-YOU
UNTPE
98 3 nji/
UNTPE
99 1 t\inu nji @ @ @
UNTPE
TO-YOU NOT
UNTPE

100 1 ki k\in\i si RQPR
what say \aux(past)
101 3 o k\textit{mando} can you put it down (6)
SHE SAID
fer k\textit{mando} can you put down (2)
THEN SAID
RSPR

102 1 put down (4)
RQAC

103 2 put it in here (2)
RQAC

104 3 \textit{ethe r\text{\text{"o}}khdo}
HERE PUT
put it in (3)
RQAC

/\textit{ed/ v\text{\text{"i}}c}
IN
RQAC
GRAPH 10.2  dyad 1m(a)

Mapping of conversational turns for subject (S) & interlocutor (I), classified as C, D & d waves
GRAPH 10:4 dyad 1n
Mapping of conversational turns for subject (S) and interlocutor (I), classified as C, D, or d waves
Mapping of conversational turns for subject (S) and interlocutor (I), classified as C, D, P, and no move.
Mapping of conversational turns for subject (S) + interlocutor (I), classified as C, D, or D waves.
GRAPH 10.14: dyad SM(6)

Noting of conversational turns for subject (s) & interlocutor (d), classified as C, D or d Moves.
Mapping of conversational turns for subject (S) vs. interlocutor (I), classified as C, D, or d moves.
GRAPH 10:22 dyad 7m

Meaning of conversational turns for subject (S) & interlocutor (I), classified as C, D or A moves.
Mapping of conversational turns for Subject (S) and Interlocutor (I) classified as A, B, C, or D moves.

GRAPH 10:26  dyad 9h
Mapping of conversational turns for subject (S) and interlocutor (I), classified as GJ and d moves.
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