Repetitiveness and Productivity in the Language of Adults with Autism

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Abstract

A multiple case study design was used to investigate the language and conversation of 6 adults with autistic spectrum diagnoses who had varied cognitive and social ability. The format for data collection was informal one-to-one interview carried out over some months. Wechsler Intelligence Tests were also carried out on the study participants. Data was audi-taped and transcribed. Conversation Analysis and structural linguistic analysis methodologies were used to analyse the data obtained. A primary interest of the study was the dimensions of repetitiveness in autistic language, and this was explored at the levels of speech, syntax and discourse. The identification of key characteristics of language in adults with autism was also an important aim of the study. Analysis of the data suggests that adults with autism exhibit peculiarities of speech and syntax which cannot necessarily be related to developmental linguistic delay. At the level of conversation, difficulties were also seen to exist in cohering discourse and interaction, maintaining topic and in the use of repair. Repetitiveness in autistic language is pervasive, in that it is seen to exist at all the linguistic levels considered in the study, and at all levels of cognitive ability. Further, repetitiveness appears to be used as a resource to enable talk to proceed, particularly at critical points in the discourse. The psycholinguistic implications of the data were also considered, particularly in relation to MacWhinney’s Competition Model of language processing and acquisition.
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1. Introduction

This thesis concerns the language and conversation of 6 adults with autism, with a particular interest in the forms and functions of repetitiveness that exist therein. A multiple case-study design has been used which focuses on the analysis of language at the levels of phonetics, phonology, syntax and discourse (including conversation analysis). While an analysis of semantic aspects of autistic language is bound to yield much of interest to the linguist, including such analysis would broaden the focus of the study to unwieldy proportions, and hence it has been omitted in the present work.

The multiple case-study design and broad linguistic/conversation analysis were chosen to allow the most thorough investigation possible of the aims of the study. These aims are shown below.

• 1. To investigate forms and functions of repetitiveness at the different levels of adult autistic language, beyond echolalia as identified in the language of autistic children;

• 2. To identify those features of adult autistic language which may be common between people with autistic spectrum disorders;

• 3. To suggest possible psycholinguistic processes which may underpin the acquisition and performance of language by autistic people.

(1)

Bullet point (1) addresses the issue of repetitiveness in autistic language. While echolalia in autistic children has been extensively researched, other types of repetitiveness, specifically in end-state linguistic systems, have not. Work such as Howlin’s (1982), has addressed echolalia in a developmental context by investigating its role in syntactic structure acquisition. Findings from these types of study have been subject to contentious interpretation, with the generally accepted thesis being that echolalia is of little developmental importance. Since the role of repetitiveness in non-autistic linguistic systems has been subject to recent re-evaluation, it seems likely that that an analysis of repetitiveness in adult autistic language may help provide substance for a reappraisal of the function of echolalia in autistic children as a tool for linguistic development. Echolalia is generally reckoned to disappear at a verbal age of three years (Howlin, 1982). It is a hypothesis of this study that rather than simply vanishing, echolalia develops as the autistic child grows older along a continuum of productivity. Full productivity may never necessarily be attained, but the dimensions of repetitiveness which are may enable us to achieve some understanding of linguistic development in a developmentally disordered population. Without longitudinal data, this investigation is only able to offer hypotheses as to the latter,
nevertheless, a resurgence of interest in repetitiveness in autistic language, of which echolalia is the most extreme example, may be presumed to be timely in the light of similar developments in normal language acquisition and performance.

(2) A noted feature of studies of autistic language is a focus of interest on high-functioning research participants (for example, Ghaziuddin, Leininger, & Tsai, 1995; Ozonoff, Pennington, & Rogers, 1991a; Ozonoff, Rogers, & Pennington, 1991b; Rumsey, Andreasen, & Rapoport, 1986; Siegel & Minshew, 1996; Turner, 1999). This selectivity proceeds from an interest in identifying the linguistic features which are specific to autism. In this sense, the cognitive impairment that so often exists alongside autism is seen as separable from the condition. However, since the majority of persons with autism also suffer cognitive impairment (Frith, 1989a), this concentration of interest on a subset of the population seems to have introduced an imbalance into the field. The theoretical advantages of investigating the language of the ‘purely’ autistic are obvious; however, at least in the interests of furthering therapeutic practice, it was considered important to attempt to identify the features of language in autism as they exist across the entire spectrum. This redressing of imbalance has a further advantage, in that by looking at language across a range of abilities the language of the individual is contextualized. Hence the language of the Asperger’s research participant with a full scale IQ in the normal range, is interesting in both its own right, but also because it has certain features which are comparable to those of an autistic person who is unable to achieve a scaled score on the same test.

(3) In one sense, the study presented here is unique in that an attempt is made at simultaneously providing generalisable breadth of analysis alongside depth in the multi-layered linguistic functioning of individuals. The perspective thus enabled allows an insight into the ways in which language in autism seems to work. The same situations are responded to by different people in similar ways; behaviour that is ostensibly peculiar to a single research participant may appear quite differently when contextualized by the performance of others across a variety of situations. While functionalist accounts of language suggest that language is, to different degrees, emergent from function and cognitive factors (MacWhinney, 1989), it is equally permissible to propose the reverse: that linguistic performance may provide insight into autistic cognition.

Functionalism informs much of the interpretation of the data-analysis in this study. The value of this type of analysis to disordered language is appealing since it is able to comfortably account for individual variation. Autism is a disorder characterised by heterogeneity, hence functional analysis seems all the more appropriate in a study of this type. Apart from the work of Bates and colleagues (for example, Blackwell & Bates, 1995), it is noted that few attempts have been made to analyse or provide theoretical frameworks
for developmentally disordered language which are functional in origin. However, it may be that the time is ripe for a shift, modular accounts in the generative tradition having taken us so far along the way, a fresh perspective can at the very least provide the opportunity to reassess our account thus far.
One of the main areas of interest in this study is repetitive and echolalic language within autism. As anyone familiar with the field will be aware, such an area encompasses a great deal and requires some preliminary definition. Issues surrounding the neuropsychological causes of autism are also explored here, though it should be noted that a great deal of contention continues to exist in this field. Such contention will undoubtedly continue until the question of ‘where autism comes from’ is finally resolved. This account is not intended to be an exhaustive summary of the relevant literature, rather to provide a basis and context which will inform the analysis described in the individual case studies.

Although the study focuses on the repetitive linguistic behaviours of young adults diagnosed as having autistic spectrum disorders according to the DSM IV definition (APA, 1994), most of the literature focuses on autistic children rather than adults. By necessity this is the field around which discussion of the main theories will centre. In any case, since developmental asynchrony has been identified as a characteristic of autism, a focus of interest in different age groups will be helpful in forming hypotheses as to the longitudinal development of the autistic use of repetitive and formulaic language, the implications in terms of neuropsychological factors, and likely processing strategies.

The DSM IV diagnostic criteria for autism are shown below.

"A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):

(1) qualitative impairment in social interaction, as manifested by at least two of the following:
(a) marked impairment in the use of multiple nonverbal behaviours such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
(b) failure to develop peer relationships appropriate to developmental level
(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing or pointing out objects of interest)
(d) a lack of social or emotional reciprocity

(2) qualitative impairments in communication as manifested by at least one of the following:
(a) delay in or total lack of the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
(b) in individuals with adequate speech, marked impairment in the ability to sustain a conversation with others
(c) stereotyped and repetitive use of language or idiosyncratic language
(d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level"
(3) restricted repetitive and stereotyped patterns of behaviour, interests, and activities, as manifested by at least one of the following:
(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
(b) apparently inflexible adherence to specific, nonfunctional routines or rituals
(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
(d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.” (APA, 1994: 70-71).

This type of checklist definition is suggestive of heterogeneity in the disorder. Sections A2 and B2 are of central interest to this study, although social factors are also taken into account, particularly in relation to analysis of conversation.

2.1. Primary psychological causes of autism

The search for a primary psychological cause of autism, as with other disorders of a developmental nature, has to orient to the identification of an impairment which is specific to autism, universal in those diagnosed with the condition and which has a causal precedence (Happe, 1994). Authors have suggested a range of possible primary causes, including poor emotion perception (Ozonoff, Pennington, & Rogers, 1991a), an inability to apply existing knowledge (Bowler, 1992), an impairment of intersubjectivity (Hobson, 1993), early socialising deficits (Klin, Volkmar, & Sparrow, 1992; Rogers & Pennington, 1991), and weak central coherence (Frith, 1989a). Two of the most compelling of such accounts are outlined in greater detail here: theory of mind and executive dysfunction. These have attracted the attention of a range of authors working in the field who have generated a large body of work investigating these potential primary psychological causes. Other potential causes are equally well substantiated by experimental evidence, but theory of mind and executive dysfunction are of greatest relevance to this study.

Important theoretical difficulties arising from the postulation and investigation of a primary psychological cause for autism are also usefully illustrated by these two accounts. The search for the primary psychological underpinnings of autism must be accompanied by the caveat that it is possible that autism may have multiple primary causes (Ozonoff, et al., 1991a): indeed, given the heterogeneous nature of the condition, multiple primary causes may in the end provide the most satisfying account of the psychological genesis of the condition.
2.1.1. Theory of mind

A theory of mind is an essentially human characteristic (Whiten, 1993). Baron-Cohen defines a theory of mind as:

"being able to infer the full range of mental states (beliefs, desires, intentions, imagination, emotions, etc.) that cause action" (Baron-Cohen, 2000: 3).

While not specific to autism, the association between autism and an impaired theory of mind is long-standing (Baron-Cohen, Leslie, & Frith, 1985; Frith, 1989b; Meltzoff & Gopnik, 1993; Ozonoff, et al., 1991a; Ozonoff, Rogers, & Pennington, 1991b; Tager-Flusberg, 1993), and has been seen to prevail even in those individuals with autism who have good general comprehension (Baron-Cohen, et al., 1985). The various tests that have been devised to investigate dimensions of the ability to 'mentalise' (or 'apply a theory of mind') serve to define its parameters, hence they are presented here with brief descriptions, following Baron-Cohen (2000: 5-15).

Understanding functions of the brain. In these tests children are asked what they think the brain is for. Autistic children’s responses typically refer to the physical functions but do not mention the mental functions.

The appearance-reality distinction. Autistic children show a lack of differentiation between real objects and objects that have the appearance of another object. Baron-Cohen gives the example of an apple and a candle shaped like an apple (2000: 5). They thus show a lack of awareness of the dual nature of some objects, although an alternative explanation of the pattern of errors could be given in purely linguistic terms.

First-order false-belief tasks. These test the ability to understand that people can have different beliefs about the same situation. Autistic children do not demonstrate an awareness of what other people may think in these situations (also see second-order false-belief tasks below).

"Seeing leads to knowing" tests. Normally developing children are able to infer other people’s mental states from actions (for example, through observing someone looking into a box, the normally developing child can infer that that person knows what is in the box). Baron-Cohen relates this ability to the Gricean maxim of 'be informative' in conversation. Those with autism are typically over-informative in conversation, telling people things that they already know, hence violating the maxim. Deception also depends on this inferencing ability.

Tests of recognizing and producing mental-state words. Autistic children have difficulty picking out words in a list that refer to mental states, just as they show limitation in their spontaneous production.

Tests of the production of spontaneous pretend play. Autistic children are impaired in using imagination in play.
Tests of understanding more complex causes of emotion (such as beliefs). These tests investigate the autistic lack of awareness of what, apart from physical events, can cause a person to feel, for example, happy or excited.

Tests of inferring from gaze-direction when a person is thinking, or what a person might want. Autistic children are unable to interpret gaze in a socially meaningful way. This ability is present in normally developing children of four years old.

Tests of being able to monitor one’s own intentions. When intention is thwarted, normally developing children are able to correctly disclose what the intended outcome of their action was, compared to the actual outcome. Autistic children make frequent errors on this task.

Tests of deception. Deception involves the simultaneous comparison between reality and its false presentation. It also involves knowing about people’s belief states, what people rely on in coming to hold a belief, and how these can be manipulated. Baron-Cohen also points out that to commit a deception also involves motivation and hence intention. Children with autism find deception difficult both receptively and productively.

Tests of metaphor, sarcasm and irony. Typically, autistic children have difficulty in interpreting these complex linguistic activities by disengaging from a literal interpretation, as they do with jokes.

Tests of pragmatics. The pragmatic impairment is amply documented in the literature (see below). As Baron-Cohen states,

“almost every aspect of pragmatics involves sensitivity to speaker and listener mental states, and hence mind-reading, though it is important to note that pragmatics also involves using context” (2000: 13).

Surian et al’s study (Surian, Baron-Cohen, & Van der Lely, 1996) found the recognition of Gricean maxims in autistic children’s conversation to be impaired.

Tests of imagination. These reveal a significant impairment in autistic imagining over and above the one associated with spontaneous pretend play.

Second-order false-belief tasks. Some older children with autism, Asperger’s syndrome sufferers, and high-functioning autistic children and adults may pass first-order false-belief tasks, although not in line with normal developmental expectations. The second order tasks involve determining embedded mental states, that is, what one person might think about another person’s beliefs (2000: 15), and typically give problems to even those more able individuals who pass the first-order tasks.

The theory of mind theory currently holds that we have a certain innate ability to mentalise. This innate component consists of a ‘starting state’ theory and theory-forming mechanisms (Gopnik, Capps, & Meltzoff, 2000: 51). Theories of mind succeed one another and are revised as experiences accumulate and are processed. Thus an impaired theory of mind may be the result of problems in various components of the system. There may be a deficiency in the starting-state theory, a problem with the theory-forming
mechanism itself, or a difficulty in using experience to activate the process of theory revision (Gopnik, et al., 2000). Thus, those with perceptual impairments (for example, deaf or blind children) may have difficulties in mentalising due to a restriction of experiences which are accessible to them (Gopnik, et al., 2000). Gopnik suggests that the particular problem in autism relates to an absent or peculiar initial theory of persons which has a cascading effect on all later forming theories. She shows that autistic children are unable to link their own and others' experiences and have significant problems in attending to social signals right through the stages of development. Within the 'theory of theories' that she is suggesting, this is likely to have significant negative implications for the understanding of causality and notions about the world that the child is then able to construct. Thus, even children and adults with autism who seem able to perform adequately on theory of mind tasks, may have come to the correct solution via a very different route to that taken by non-autistic persons.

An absent or peculiar theory of mind has an undoubted effect on language acquisition. The precursors associated with the later-developing theory of mind have also been associated with important linguistic precursors. For example, joint attention skills, proven to be of critical importance in later linguistic development (Baldwin, 1991; Tomasello & Kruger, 1992; Tomasello & Todd, 1983), are dependent on such a theory. Sigman and Ruskin (1999) found that autistic children's joint attention skills reliably predicted good linguistic ability later in development. An impairment in joint attention has been related to the diagnostic delay in autistic language acquisition (Baron-Cohen, 1997). The pragmatic impairment in autistic language has an obvious relation to an impaired theory of mind, although as Tager-Flusberg points out, while “all researchers agree that pragmatics are closely tied to theory of mind, the direction of this relationship has not been clearly delineated” (2000:128). While some, such as Locke (1993), discussed further below, suggest that a theory of mind is necessary for language, others, such as Dunn et al (Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991), suggest that the relationship should be viewed conversely. Beyond these two well-researched issues, the relationship between theory of mind and syntax and lexis has begun to be investigated (for example, by De Villiers, 2000; Tager-Flusberg, 2000). The investigations of complementation and cognition verbs indicate that while a relationship between theory of mind and these aspects of language undoubtedly exists, its nature is likely to be complex and possibly bi-directional (Tager-Flusberg, 2000).

Theory of mind is now recognised to be a graded rather than absoloute component of cognition (Prizant, 1996). Executive function has also been suggested as the primary psychological impairment in autism, from which it is theoretically possible that theory of mind deficits can be generated (Ozonoff, et al., 1991a; Ozonoff, Strayer, McMahon, & Filloux, 1994).
2.1.2. Executive dysfunction

An alternative to Theory of Mind as the primary deficit underlying autism is executive dysfunction, proceeding from the research tradition of cognitive neuropsychology. Executive function is concerned with the high-level, conscious control of actions, specifically planning, impulse control, inhibition of prepotent responses, maintenance of appropriate ongoing action, and organisation and flexibility in thought and action (Ozonoff, et al., 1991a: 1083). The features of autism accord well with an executive dysfunction explanation. Lack of spontaneous thought and action (Bailey, Phillips, & Rutter, 1996), rigid, inflexible and perseverative behaviour (Ozonoff, et al., 1994), poverty of speech and action (Dykens, Volkmar, & Glick, 1991; Rumsey, Andreasen, & Rapoport, 1986) and lack of future-orientation and goal-directed behaviour (Ozonoff, et al., 1991a) have been identified as autistic characteristics consistent with an executive dysfunction hypothesis. Norman and Shallice (1986) provide the original model of executive function, in which the distinction between controlled, willed action and automatic actions, unavailable to conscious reflection, is made explicit.

The evidence for executive dysfunction in autism has been built on the basis of a number of studies utilising neuropsychological frameworks of investigation. The first such work involved a single case-study of an autistic male with idiot-savant abilities (Steel, Gorman, & Flexman, 1984). Although the battery of tests seemed to confirm an executive function disability, single case-studies cannot be considered conclusive evidence for a generalised autistic dysfunction. Rumsey’s study (1985), using a group of nine high-functioning autistic males, however, also found evidence for executive dysfunction. The test used in this study was the Wisconsin Card Sorting Test (Grant & Berg, 1948): a tool typically used to investigate frontal lobe dysfunction (Stuss & Benson, 1984), and one which frequently features in studies of executive dysfunction in autism. Impaired conceptual level responding and perseveration were both identified as characteristics of the performance of the study participants. Later studies by Rumsey and colleagues using a battery of tests made similar findings (Rumsey & Hamburger, 1988; Rumsey & Hamburger, 1990). Fluency was also found to be impaired in the participants of these later studies. Fluency and the inability to generate novel ideas were found to be similarly impaired in a study investigating these abilities in both low and high-functioning autistic subjects (Turner, 1999). In a study using 60 autistic children, Hughes and Russell found that there was a marked inability to disinhibit response to a salient object (1993), while findings from a further study by Hughes and colleagues suggested a planning deficit in autistic children (Hughes, Russell, & Robbins, 1994).

In relation to the triad of criteria in identifying primary causes of a developmental condition (that is specificity, universality and causal precedence) Ozonoff et al (1991a) note that neither executive dysfunction nor impaired theory of mind are specific to autism. In addition, in their study, they found that while a subset of subjects exhibited
theory of mind impairment, the notion of universality seemed to apply more justly to executive dysfunction. Happé (1994), however, disputes the contention made by Russell, Mauthner, Sharpe, & Tidswell (1991), that there is an entailment of mentalising or theory of mind ability by executive dysfunction. and suggests that the time is ripe for a new epidemiological investigation into the non-social features of autism, similar to Wing and Gould's classic work (1979), such that new clusters of features may be identified, thus providing fresh insight into what is becoming an increasingly complex field of study. This thesis accords with this spirit, in that while communication is part of Wing's triad of impairment, it has long been assumed that since it is not universal in autism it is hence of secondary importance in causal explanations. Concurring with Tager-Flusberg (2000), the contention giving rise to this thesis is that, when examined closely, language in autism will exhibit peculiarities not necessarily associated with those features normally attributed to straightforward developmental language delay arising from impaired cognition.

2.2. Language in autism
The DSM IV definition of autism, given above, allows for the possibility of an autistic diagnosis without any evidence of linguistic impairment, although its recurrent mention in the definition is indicative of a degree of importance if not centrality in the disorder. Some workers in the field of autistic language (Happe, 1994; Hobson, 1993) consider the linguistic deficit in autism to be secondary to the social impairment, in the former case, and the cognitive impairment, in the latter case. The issue of what is primary and what dependent in the manifestation of autism is complex, and given the heterogeneity of the disorder is unlikely to be resolved for some time. The debate over language's role in the autistic condition has, in fact, continued with healthy volubility over the last 3 decades. This discussion sometimes clouds the fact that approximately only 50% of diagnosed autistic persons ever acquire spoken language (Prizant, 1996).

The features of autistic language which have received most attention in the literature are echolalia (discussed in detail below), pronominal reversal, extreme literalness, pragmatics entailing problems relating to the roles of speaker/listener, and deictic reference (Wetherby & Prutting, 1984: 295). Impaired conversation is also mentioned in the DSM IV diagnostic definition. Investigators have only recently come to apply the conversation analysis methodology to disordered language (Dobbinson, Perkins, & Boucher, 1998; Perkins, Body, & Parker, 1995; Willcox & Mogford-Bevan, 1995). Previous to this, discourse analysis has been the preferred methodology of investigation, and has focused mainly on cohesion in autistic discourse (for example, Baltaxe & D'Angiola, 1992; Tager-Flusberg, 1995; Baltaxe, 1977; Fine 1994; Johnston, 1985). These studies have consistently found that cohesive ties of all types are less successfully used by autistic children than controls (Baltaxe & D'Angiola, 1996), or are simply less frequent (Tager-Flusberg, 1995).
The formal aspects of language (phonology, syntax and semantics) in autism have also been addressed. An early review of studies dealing with these aspects by Tager-Flusberg (1981) suggested that while phonology and syntax were comparable in their development to those of normal children, semantics and pragmatics showed deficiencies. This finding has been taken to imply that there is no global linguistic deficit in autism, although there is a developmental lag, concomitant with that which may occur in mentally impaired populations (1981: 52). This finding is partly substantiated by Bartolucci et al’s 1980 findings in a study comparing production of Brown’s morphemes (Brown, 1973) in an autistic group with mentally retarded and mental age matched normal controls. However, the autistic group in this study demonstrated atypical ranking of morphemes out of line with developmental norms. This is suggestive of not just a specific lag in morpheme acquisition but atypical development (Bartolucci, Pierce, & Streiner, 1980). The problematic morphemes are the present progressive, past regular, articles, third regular, uncontracted copula and uncontracted auxiliary. No systematic analysis of semantics or reference requirements of these morphemes can suggest a reason for problems in their use (Bartolucci, et al., 1980: 48).

Asynchronous language development implies a dissociation between levels of language consistent with theories of modularity (Fodor, 1983). In particular, the semantic/pragmatic deficit can be equated with a deficiency in early communicative and joint-attention-based gestures as well as the socio-emotional autistic deficit (Tager-Flusberg, 1981).

Later work has separated the semantic and pragmatic aspects of language in autism, suggesting that while a semantic deficit does not exist, the pragmatic impairment is serious and universal (Tager-Flusberg, 1996). This is seen by Tager-Flusberg to derive from an impaired theory of mind, which is also mobilised to explain prosodic deficits and pronominal reversal, since both involve a lack of awareness of interlocutor needs (Tager-Flusberg, 1996). The deictic deficiency has also been explained by absence of early joint-attention skills and a systemic confusion between self and other (Rees, 1984). These factors are similarly consistent with a theory of mind explanation for autism.

2.2.1. Echolalia: Communicative value

Echolalia is a frequently mentioned characteristic of autism and its dimensions have been explored in a large number of studies (Atlas & Blumberg Lapidus, 1988; Baltaxe & Simmons, 1977; Bender & Fareta, 1972; Cantor, Evans, Pearce, & Bezzot-Pearce, 1982; Fay, 1967; Fay, 1969; Fay, 1974; Howlin, 1982; Local & Wootton, 1995; Nagy & Szatmari, 1986; Paccia & Curcio, 1982; Prizant & Duchan, 1981; Prizant & Rydell, 1984; Rydell & Mirenda, 1991; Schuler, 1979; Schuler & Prizant, 1985; Tager-Flusberg, 1996; Violette & Swisher, 1992). Echolalic language within autism may have an immediate or
delayed presentation. This categorisation has existed since autism's first definition by Kanner in 1943. Both delayed and immediate echolalia refer to utterances in which a speaker repeats a model utterance verbatim, with the term 'delayed' indicating an unspecified time lapse between the model and the echolalic utterance. Fay and Schuler (1980) suggest that these two types of echolalic utterance may reflect differences in memory processing.

There may also occur instances of so-called mitigated echolalia (Paccia & Curcio, 1982), in which the echoed utterance is not an exact reproduction of the model. Utterances such as these are often taken to imply some kind of communicative intent on the part of the speaker. The mitigation may take the form of prosodic restructuring (Baltaxe & Simmons, 1985; Paccia & Curcio, 1982), pronominal re-organisation or some other type of syntactic alteration, which may or may not be appropriate to the speech event (Voeltz, 1977; Buium and Steucher, 1974, cited in Prizant & Duchan, 1981). Obviously, the question of communicative intent versus automaticity within echolalia and repetitive language (Schuler, 1979) is interesting and underpins much of the discussion in the literature outlined below.

A useful notion to bear in mind here may be the distinction Lyons (1977: 33) makes between communicative and informative signals. Lyons remarks that:

"a signal is communicative . . . if it is intended by the sender to make the receiver aware of something of which he was not previously aware."

Put another way, "communicative means meaningful for the sender". By contrast, a signal is said to be informative if "it makes the receiver aware of something of which he was not previously aware", and is "meaningful for the receiver" (1977: 33). In the Lyons sense, then, an utterance can be said to be communicative only if the speaker has made a choice between alternative signals. If a speaker has no choice available to them then the utterance is said to be non-communicative: "meaningfulness implies choice" (Lyons, ibid).

An informative utterance has value or significance in that it adds to the knowledge of the receiver. Autistic use of echolalia in discourse presents us with a problem with regard to this definition, since intention on the part of the speaker may not be easy to establish. The informativeness of such an utterance is likewise dependent on the interpretation of the receiver. Certainly, a surface level analysis of an echolalic utterance implies a non-informative signal, since the utterance is lexically parasitic on earlier discourse, and is therefore unlikely to contain new information. An attempt to define a different notion of communicative and/or informative utterances is therefore necessary if progression beyond a simple non-interactive, non-functional account of echolalia is to be made (Fay, 1969; Shapiro, 1977).
Kanner's opinion as to whether or not echolalia can be interpreted as having any kind of communicative function similar to those types described below is a little difficult to gauge. At times he talks of what appear to be instances of expressive echolalia (Kanner, 1943, cited in Howlin, 1982: 5), and yet at others he seems persuaded of the absolute meaningless of these utterances (ibid: 34). Many authors regard echolalia simply as a reflection of an inability to comprehend language (for example, Fay, 1969; Shapiro, 1977), and therefore as non-communicative in essence. These authors do not deal seriously with any cognitive factors which might prompt an instance of echolalic or repetitive language. However, more recent work has approached echolalia as potential evidence of communicative intent. While Howlin, noting that echolalia apparently disappears from language at an approximate verbal age of three years (1982), views it as evidence of severely impaired communication with a primarily social or phatic function, others have gone to great lengths to explore its dimensions. While these studies offer detailed accounts of echolalic functions, their over-arching purpose is to establish the dimensions of communicative intent that can be seen to exist in echolalic utterances.

Prizant and Duchan's (1981) work on immediate echolalia was the first real attempt to functionally categorise immediate echolalia. Their work represents an attempt to redress the balance of research which had concentrated on the structural characteristics of echoic utterances often elicited in unnatural experimental environments, such as that done by Shapiro and Lucy (1978). Shapiro and Lucy (ibid) measured responded latencies of echolalic and spontaneous utterances, concluding that the shorter response latency of echolalic utterances was an indication of use of a lower level of cognitive processing. Prizant and Duchan suggest that different instances of echolalia may reflect "degrees of comprehension" (1981: 242), and, in keeping with a pragmatically oriented methodology, in their data collection evidence

"concern for natural contexts, situational factors, and non-verbal behaviours co-occurring with the production of the echolalic utterances" (1981: 242).

Thus the study has an entirely different focus and objective to that of Shapiro and Lucy, despite the ostensible similarity.

The subjects were four autistic boys who were video-taped at home, at school in a one to one interaction environment, and at school in a group activity environment. The data was analysed according to communicative context and structural characteristics, as well as measuring onset latencies of echolalic utterances. The structural categories thus arrived at are shown below.

i. Interactive echoes - degree of comprehension of the model;
ii. Non-interactive echoes - degree of comprehension of the model;
iii. Interactive echoes - no comprehension of the model;
iv. Non-interactive echoes - no comprehension of the model. (1981: 245)

Functional categories are as follows:
1. Non-focused
2. Turn-taking
3. Declarative
4. Rehearsal
5. Self-regulatory
6. Yes-answer

These categories are used and further subdivided in the work of Schuler and Prizant (1985). The least functional of the categories, (1) - non-focused, occurred only rarely (1.0% - 7.1%) in the speech of each child, but was present in every child's speech. This type of echolalia seemed to occur as a response to an extreme sensory stimulus such as pain and was observed to decrease in accordance with greater linguistic ability. Category (3) utterances, rehearsal, seemed to have a cognitive rather than socio-communicative origin. The most intentional of all echolalic responses is that of (7), request, which often included the addition of spontaneous material to the model utterance. There is, then, a continuum of communicativeness within immediate echolalia with non-functional repetition, 'parrot-like' and characterised by its automaticity, at one end, and request-type echolalia, focused and interactive at the other. Prizant and Duchan also extend the pragmatic notion of echolalia by suggesting that it may have a function within language acquisition processes; a notion which has been taken up by others (for example, Schuler & Prizant, 1985; Tager-Flusberg, 1989; Tager-Flusberg & Calkins, 1990) and which is explored further below.

Schuler and Prizant (1985), in developing the concept of a communicative echolalic continuum, propose its extension to include longitudinal development in a single speaker. The developmentally less mature echoers may use relatively automatic and pre-intentional echoes, which gradually give way to those which exhibit increased intention and discrimination (1985: 181). Schuler and Prizant also equate the use of echolalia with the gestalt style of language processing within normative language development (Nelson, 1981; Peters, 1977).

Delayed echolalia received analysis similar to its more easily-identified sibling, immediate echolalia, in Prizant and Rydell's (1984) work. They define 'communicative' using the Bates 1979 definition of symbolic communication in which an utterance is said to be symbolically communicative if there exists
They analyse delayed echolalic utterances from three autistic subjects with regard to communicative intent, symbolic communicative activity and conventionality of signal, arriving at fourteen functional categories of delayed echolalia in the process: non-focused; situation association; rehearsal; self-directive; label (non-interactive); turn-taking; verbal completion; label (interactive); providing information; calling; affirmation; request; protest; directive. Leaving aside the question of symbolic versus non symbolic acts and concentrating on the area of communicative intent, the authors cite the categories of request, protest, labelling (interactive), calling, affirmation, directive and providing information as showing evidence of communicative intent. The determination of function-category of a specific utterance (and by extension, the degree of communicative intent) is made by reference to co-occurring behaviours, extra-linguistic context, sequential discourse location or hypothesized function of the echolalic utterance. While the chance of subjectivity interfering with utterance categorisation is reduced by incorporating interjudge reliability into the methodology, the problem of establishing the extent of communicative intent evidently remains, as the range and variety of methods for categorisation indicates. This matter aside, the final hypothesis offered dovetails neatly with the findings from immediate echolalia studies, in that it is suggested that delayed echolalic utterances may begin as non-communicative and progress longitudinally towards becoming more communicative.

2.2.2. The environment of echolalia

Functional accounts of echolalia do not explore fully the nature of the phenomenon, hence the existence of studies which investigate its cognitive and linguistic underpinnings. Since these can only be investigated indirectly and by systematic manipulation and control of the eliciting input, a return to more controlled environments was called for. Violette and Swisher investigated these inputs in terms of interlocutor style and content (1992). The finding that immediate verbal imitations most often occurred when the adult, child-directed input consisted of unfamiliar words and was delivered in a highly directive way were taken to suggest that echolalia is a response to an "uncertain or informative event" (1992: 139). Whether the immediate verbal imitations were related to linguistic or cognitive uncertainty, or to an interaction between the two could not be determined within the methodology. Violette and Swisher's functional interpretation was that the utterances in question were minimally communicative, indicating knowledge of the pragmatic principle of turn-taking in conversation. Echolalia, for the subject of this study at least, then has a functional interpretation with cognitive/linguistic implications.
Rydell and Mirenda's work (1991) is similar in perspective to that of Violette and Swisher's discussed above. The investigation this time centred on autistic subjects' responses to adult high-level constraint and low-level constraint utterances. The definitions of high and low constraint are rather loose; for example an 'attention device', which is given as an instance of a high-constraint utterance, may in natural language consist of any one of a variety of phrases, and is given only a 2-line definition in the cited work. Some such phrases, simply by virtue of the different contexts in which they are likely to occur, may require a more definite response than others; that is, some high constraint utterances are 'higher' than others in particular contextual environments. The two attention device phrases cited as examples in the appendix, "see?" and "look at that", indicate the problems which might arise when definitions are this loose. With prosodic alteration, "see" can become rhetorical ("there you are; that's how you do it") or interrogative ("can you confirm that you see what I'm trying to show you"). In a similar way "look at that" can have a different illocutionary force (Searle, 1969) depending on context and/or its prosodic features. The findings of the authors are somewhat ambiguous, perhaps as a result of this methodological and definitional uncertainty. Subjects produced more echolalic responses to a high constraint style, but also produced more spontaneous responses to this style of input. It is, then, difficult to conclude that the production of echolalia is related to any type of input style, only that it can be elicited in the same way that productive speech can be. This has possible implications for the argument in favour of the communicative intent of echolalia given above, in that echolalia might appear to have more in common with productive intentional communicative speech, than with non-communicational behaviour since either may be elicited by a similar stimulus.

2.2.3. Prosody in echolalia

Paccia and Curcio (1982) dealt with the question of instances of mitigated echolalia in the form of prosodic re-structuring of an examiner's question. The five autistic children in their study were given input in the form of sentence completion tasks, wh-questions, yes/no questions which required a correct yes answer, and yes/no questions which required a correct "no" answer. The children's responses were audio-taped and subjected to acoustic analysis to check for prosodic restructuring. The analysis indicated that, when an echolalic utterance occurred with prosodic restructuring, it often seemed to be an indication of affirmative response on the part of the autistic subject. The authors also note, however, that the subjects were more likely to produce echolalic utterances in response to questions which they did not comprehend. Evidence for non-comprehension was taken from subjects' earlier responses to PPVT comprehension tests, using declarative base forms of the experimental tests' interrogative forms. Another finding, which is not examined in detail, is that an echolalic utterance which is semantically or syntactically mitigated is more likely to have contrastive prosody than an unmitigated utterance. This finding held across all five subjects. The affirmative function type of
echolalic utterance signifies that a higher level of processing is in operation than might be used should the subject's response be taken to signify a simple conversational turn-taking type strategy, as found in the Violette and Swisher study. "yes"-signifying entails turn-taking in a hierarchy of pragmatic functions.

Local and Wootton explored mitigated echolalia further in their 1995 work on the 'unusual echoes' of a single autistic boy. By using a detailed phonetic analysis of immediate echoes in autistic speech, combined with a conversation analysis approach to their data (1995: 155), they found that certain apparently non-functional instances of echolalia bore a suprisingly close resemblance to the models on which they were parasitic. Such close echoing has no counterpart in normal speech and hence Local and Wootton give it the term 'unusual echoing'. While other, less structurally faithful echoes seemed to have clearer functional attributes, unusual echoes are considered to play a discourse role, in that they allow the child to interact in discourse when that discourse becomes cognitively difficult for the child.

2.2.4. Prosodic development

Prosodic restructuring of model utterances in echolalia has received special attention in the literature (Schuler & Prizant, 1985; Baltaxe & Simmons, 1985; Local & Wootton, 1995; Paccia & Curcio, 1982; Tager-Flusberg, 1993). This interest undoubtedly stems from the half-way house between exact and mitigated echolalia that prosodic restructuring seems to represent. Schuler and Prizant suggest that difficulties in segmenting the speech stream due to a poor perception of prosody coupled with a lack of joint attention ability might leave the autistic language learner with a heavy reliance on the gestalt language learning mechanism (1985). The linguistic outcome of this may well be instances of echolalia as the autistic language user struggles towards communicative, productive language.

The development of prosody has been asserted as a potentially facilitative element in the process of language acquisition, particularly syntax (Baltaxe & Simmons, 1985; Peters, 1995), interacting in a complex way with the acquisition of other levels of linguistic ability. Although dysfunctions in prosody are dissociable from other linguistic levels in acquired disorders, the implications for a language learner of a developmental prosodic difficulty are possibly pervasive. Some research (for example, Baltaxe, 1984) has shown that autistic children's capacity to understand meaning based on contrastive stress lagged behind language-impaired (aphasic) and normal controls. Conversely, a review of work in the field of prosodic ability in autism by Tager-Flusberg (1989) is taken by the author to suggest that, while prosodic dysfunction "may provide important clues into the nature of core deficits in autism" (1989: 98) due to its pervasiveness throughout the autistic population as well as its persistence into adulthood, it is of more socio-emotional interest than linguistic. This perspective proceeds from the notion that prosody with an emotional
significance is related to the right hemisphere while prosody with a linguistic significance is located in the left. Hence, while it is not disputed that prosody is deficient in autistic populations, it is considered that linguistic use is spared while socio-emotional use is impaired. However, Perkins (2000: 20 (footnotes 7 and 8, citing Eisele and Aram, 1995; Wray, 1992 and Blumstein, 1988)) urges wariness in the hemispheric association of specific linguistic processes, since recent research in neurolinguistics indicates that both hemispheres seem to be involved in language processing.

Prosodic deficit may exist at either phonetic or phonological levels, or indeed at both simultaneously (Wells et al., 1995). A phonological prosodic deficit can be said to exist if it is impossible for a listener to identify the elements of the tone unit, or indeed its boundaries, due to their non-systematic marking by the speaker. A phonetic deficit exists when the system for marking tone unit elements may be non-conventional but is nevertheless systematic.

2.2.5. Neuropsychology of echolalia: Processing and acquisition

Neuropsychological causes of echolalia are also considered in the literature (Fay, 1974; Prizant & Rydell, 1984; Rydell & Mirenda, 1991; Schuler & Prizant, 1985). Workers in this field make the suggestion that we consider echolalic behaviour in the context of typically dysfunctional autistic social and cognitive development, in combination with the more normal development of memory and isolated phonological and even syntactic abilities. Such asymmetric development in company with a gestalt continuum-end type acquisition process (Rydell & Mirenda, 1991) (see below) might well lead to the autistic language user's preference for echolalia, both immediate and delayed. Further to this, it is suggested that the less intentional instances of echolalia may be part of a sub-cortical 'old brain' type response to stimulus, likened to the repetitive vocalisations of animals, while the more communicative intentional echolalia represents an assertion of more sophisticated neural mechanisms attempting to establish themselves (Prizant & Duchan, 1981; Rydell & Mirenda, 1991; Schuler & Prizant, 1985).

Echolalia as an aid in the process of language acquisition has been addressed (Howlin, 1982; Tager-Flusberg, 1989; Tager-Flusberg & Calkins, 1990), following the work that has been done on the use of imitation as a tool for normal language acquisition and development (for example, by Bloom, Lightbown, & Hood, 1974: see below). Researchers working within the field of normal child language acquisition have made hypotheses about the use of repetitive or imitative language (Bates, Bretherton, & Snyder, 1988a; Corrigan, 1980; Nelson, Baker, Denninger, Bonvillian, & Kaplan, 1985) similar to those proposed by Tager-Flusberg and Calkins (1990) and Howlin (1982); that is, imitative/echolalic language may be used to assist in the acquisition processes of certain aspects of language; either within the domain of vocabulary (Corrigan, 1980), semantic-syntactic relations (Corrigan, 1980; Bloom, Lightbown, & Hood, 1974) or
syntax (Bloom, et al., 1974). Casby’s 1986 work also suggests that the normal child may use imitation or repetition principally to enable them to take part in conversation. In all the above work, it is noted that normal children proceed from an imitative use to a spontaneous use of an item (Casby, 1986). In no case is imitation found to be non-functional.

Despite residual contention over the specific role and amount of imitation in normal development (summarised by Tager-Flusberg and Calkins, 1990), the consensus is now that it has an important part to play in acquisition and development. Much variation has been noted in children’s use of imitation (Bates, Dale, & Thal, 1995). This is particularly apparent in the literature on quantitative studies (for example, Bloom, et al., 1974). The interpretation of it in terms of individual differences (for example, Bates, Bretherton, & Snyder, 1988b; Bates, et al., 1995) therefore seems obvious and appropriate. Children are seen as tending to be primarily gestalt or analytic processors within this framework. These are terms borrowed from the field of visual processing and pattern recognition (Holdgrafer, 1994; Kimchi, 1992). Gestalt children favour importing holistic, unanalysed ‘chunks’ of language into their repertoires, the individual constituents of which they do not have productive use at first. Gestalt children are said to have a heterogeneous vocabulary consisting of a large amount of item-learned chunks of unanalysed language.

Analytic children, on the other hand, build utterances up gradually, productive constituent by productive constituent. Analytical children have vocabularies which contain a large number of referential expressions i.e. nominal phrases. Nelson (1973, cited in Bates, et al., 1995:121) uses the terms ‘referential and ‘expressive’ to differentiate broadly the same types of children. The gestalt child gradually learns to break down their holistic utterances and begins to use the components productively. The analytic child has superficially less complex language but, in fact, in terms of productive competence is more advanced than a holistic child with an MLU of around the same length. Analytic children are classed as fast learners. Categorisation of children into these two types inevitably depends on analysis of productive language. However, processing is inferred from production (Bates, et al., 1995: 121).

Later work on these two styles of language acquisition has used less loaded terminology to describe the two variants: ‘strand one’ and ‘strand two’. A full summary of the research into these variations can be found in (Bates, et al., 1995: 122). Interestingly for this study, with particular reference to the prosodic deficiency in autism, ‘strand two’ (gestalt children) are equated with being intonation rather than word oriented in the early stages of acquisition, meaning that these children focus on suprasegmental features in their early utterances rather than segmental.

The formal similarity between normal imitation and echolalia suggests the possibility that there may be a concomitant similarity in function in the acquisition process. This
possibility has been explored with relation to syntactic structure acquisition (Howlin, 1982; Tager-Flusberg & Calkins, 1990). As with normally developing children, central to this notion is the thesis that echolalic utterances should have a higher MLU (Brown, 1973) and a higher IPSyn score (Scarborough, 1990) than spontaneous utterances, relating to the notion that when children use echolalic language they are 'practising' with language slightly above their current level of use. More advanced structures are hypothesised to appear firstly in echolalic utterances and eventually to form part of spontaneous language. A period during which a particular structure may form part of mitigated echolalic utterances may intervene. Tager-Flusberg and Calkins' (1990) experimental results showed no evidence that echolalic utterances have a higher MLU than spontaneous speech in autistic children's language, and they thus conclude that they have no role in the acquisition of syntactic structures. The average MLU of the autistic subjects in Tager-Flusberg and Calkins' study is given as 2.33 with a range of 1.63 - 2.69. Howlin's 1982 research gives slightly different results. In her study, children with lower MLU’s appeared to use echolalic phrases greater in length than their spontaneous speech. The conclusion of the authors here is, then, that echolalia may be used in structure acquisition at lower MLU’s. Later, the relationship between echolalic and spontaneous utterance length reverses. However, there is an obvious danger in the use of MLU as a measure of base-line syntactic ability with autistic language users, in that it is virtually impossible to be certain that all the utterances on which MLU is based, however ostensibly productive they seem, are not in fact instances of echolalia, the phenomenon of delayed echolalia being especially difficult to detect. An MLU score may, then, give a falsely high impression of an autistic speaker's level of ability.

Tager-Flusberg (1989) suggests that while autistic children may appear to use a gestalt communicative style, this does not necessarily imply a gestalt acquisition strategy (1989: 108). Indeed, in her earlier work, Tager-Flusberg is clear that the mechanisms of grammatical development are the same for autistic as for normal children (1989: 108). Later work (for example, Tager-Flusberg, 2000: 144), however, responding to more recent developments in the field of cognition in autism, links the theory of mind deficiency with a deficiency in grammar acquisition, thereby concurring with the notion of atypical linguistic development processes in autism. A note of warning has also entered the debate on this issue: Bates et al (1995: 150) urge caution in equating 'holistic' styles of acquisition with formulaic or rote language that characterise particular developmentally disordered language styles. Bates, (1995) as do others working with formulaic language (such as Wray, 1999), differentiates the two on the grounds that holistic chunks are susceptible to analysis while the same cannot be said of echolalia. This represents a theoretically cautious position, which is academically sound. However, in the absence of longitudinal research into echolalia (of which there is none to my knowledge), it is not possible to say whether or not echolalia is susceptible to analysis at
a later stage. Certainly, the increasing communicativeness of echolalia, described above, would seem to suggest that echoes are subject to analysis as development progresses.

Schuler and Prizant cite work (1985: Tomlinson, 1982, unpublished manuscript) which shows evidence of non-focused echolalic utterances containing corrected syntax. Such a phenomenon is not known to occur in normally developing children, who are extraordinarily resistant to production of structures they have not yet acquired (Menyuk, 1969). Non-focused, corrected echolalia may be evidence of the existence of a syntax development module capable of a certain degree of development without need of semantic information. The dissociation of phonology from semantics and syntax is widely attested in the autistic language literature (for example, Dawson, 1996; Tager-Flusberg, 1994; Tager-Flusberg & Calkins, 1990), but a dissociation of syntax and semantics to this level may have implications for atypical language processing models, in particular, functional accounts.

Dissociation between linguistic levels in normal acquisition is not substantiated within the research. Both Locke (1995; 1996a; 1996b) and Bates et al (1995) have demonstrated a clear association between vocabulary size and grammatical development, suggesting that the two correlate in development in important and predictable ways. The central notion here is that a large vocabulary, acquired within normal time-frames (Locke, 1995; Locke, 1996a; Locke, 1996b), is predictive of advanced grammatical development later on. Both authors incorporate references to atypical language development into their accounts, finding that they are consistent with their models. In Locke’s model, if there is some impediment to early vocabulary acquisition, the consequences for later language development can be far-reaching and pervasive (Locke, 1994).

Locke’s model consists of four overlapping phases in language development (Locke, 1996a). The first of these involves the child becoming oriented to its social world and to its caregivers’ faces and voices. The second is concerned with storing linguistic items in a rote manner and uses the same neural mechanisms as those which operate in social cognition tasks. The items it stores are socially important to the developing child. They are exactly those which enable the child to maintain the important relationships it needs and perform the instrumental functions essential to its well-being. This component is known as the specialization in social cognition module (SSC). Locke suggests that it has a strong right hemisphere association. The third phase is of the most importance linguistically, involving activation of a grammatical analysis module (GAM). The GAM begins operation once a critical amount of items have been stored by the SSC module (but see below) and works to analyse and compute rules from the SSC input. Locke suggests that the GAM component is distinct in its neural underpinnings from the SSC. The final phase involves integration and elaboration of analysis and stored items. Not only does each phase depend for the timing of its onset on the successful operation of its
predecessors, but also relies on biological factors which have a schedule separate to the system as a whole. Hence there is a critical period in which the modules can operate most successfully. Should the 'boat be missed' for onset of the GAM, then the target linguistic system will be critically affected. When this happens, for instance where there is a developmental delay in language or cognition, other less well-specified neural systems take over the work, resulting in possibly adequate but not optimum linguistic ability (Locke, 1996a).

"Delayed neurological development interacting with declining language-learning sensitivity" (Locke, 1994: 614) are then the combinatory source of developmental language disorders. The model allows for variation in the patterns of language in specific developmental disorders. Where some disorders, such as Down's syndrome, proceed from an overall cognitive impairment we might simply expect 'less' language; that is, language which is less complex syntactically and in which vocabulary is restricted. Such is the generally agreed presentation of language in Down's syndrome, allowing of course for some inter-individual variation of particular strengths and weaknesses (Chapman, 1995). The joint-attention and social deficits which are so noticeable in autism, however, suggest that, within the model, the resulting language is likely to be quite different. While Down's syndrome children may sometimes suffer problems in the first phase due to hearing difficulties, these problems are not specific nor defining in the disorder. Autistic children however, are likely to be universally impaired in language as a result of the inadequate operation of the first phase. All subsequent phases are then bound to have a baseline limitation resulting from this early disadvantage. Indeed, as Locke says "by definition, those with autism have a dysfunctional SSC" (1993: 369). This dysfunction can be directly related to the inadequate completion of the first phase of the model. The extent of linguistic dysfunction in autism is also likely to be highly varied since non-specialised mechanisms will be called into service from the earliest possible point in the system. Later problems overlaid on these can only increase the complexity of the linguistic deficiency, as input to phases is likely to be corrupt at all stages. Again, Locke is specific in the effect that interference in the efficiency of the early stages of the model is likely to have:

"Such characteristics reduce the felt urge to convey, and deprive the GAM of the utterance data and referential information needed for the induction of grammatical principles."


Since so little is known about the neuropsychological processes and the extent of neural plasticity continues to be a matter of debate, the effect of non-specialised systems taking over language development is something of a mystery. However, Locke's model is appealing in that it accords with much of the developmental data for normal and disordered language, in particular the correlation between early prelinguistic and vocabulary skills and later grammatical development (Locke, 1995). The model also
suggests an explanation of the interaction between gestalt and analytic language in language acquisition.

2.3. Other forms of repetitiveness: Formulaicity

Topic bias (Perkins, 1994), linguistic routines or repetitiveness (Manschrek, 1985; Rumsey, et al., 1986), and formulas (Hickey, 1993; Perkins, 1999; Weinert, 1995; Wray & Perkins, 2000) may also have a bearing on our understanding of echolalia. These features can characterise normal and disordered language as well as the language of L2 speakers. Here, some of the issues relating to formulaicity are dealt with. Other types of repetitiveness (such as frames) are dealt with in the individual case studies, where they are better placed to explicate particular aspects of the data.

Formulaic language is interesting to researchers because of its relation to idiomaticity in language (Wray, 1999; Wray & Perkins, 2000). Idioms in this sense are “lexical units larger than words” (Bolinger, 1976: 3), which language users store, rather than construct morpheme by morpheme on every occasion of hearing or speaking. Some have a meaning which cannot be deduced from the sum of the parts, while some are quite penetrable on first hearing. Fillmore (1988, following Makkai, 1972) calls the former decoding idioms and the latter, encoding. Idiomatic expressions have a positive bearing on a speaker’s perceived communicative competence (Hymes, 1972) and appear to involve faster, more accessible processing (Wray, 1999), which contributes to an overall impression of native-speaker-like fluency in language (Pawley & Hodgetts Syder, 1983). Even when the neuropsychological perspective was in its comparative infancy, there was a suggestion that the production and interpretation of idioms derive from different neural mechanisms to those systems dedicated to productive language (Bolinger, 1976), and that the main reason for this is to do with economy and efficiency of processing resources. The use of formulas in adult language can thus be accounted for within Locke’s model, as well as developmentally.

A list of common formulas in English is given in Pawley and Syder (1983). Some corpus studies suggest that the amount of formulaic language we use is extensive (for example, Altenberg 1998, cited in Wray, 1999), although much depends on the type of utterances that are counted as formulas and the nature of the corpus itself (Wray, 1999). The wide use of formulas is not accounted for by linguistic theories in the Chomskian tradition (Bolinger, 1976; Chafe, 1968), and suggests that often on-line processing by-passes productive atomistic construction of spontaneous utterances in favour of the quicker method of formulaic look-up (Wray & Perkins, 2000:15-17).

The use of formulaic sequences is a critical component in language acquisition and development within the Locke model discussed above (Perkins, 1999). Formulaic sequences allow speakers to socially interact, and are hence also an important and
necessary feature of L2 as well as native language acquisition. The functional outcome of formula use is noted in relation to the wider issue of social interaction: that is, speakers with restricted linguistic systems at their disposal may achieve ends not accessible to them via productively generated language. Desires can be expressed, needs can be met and services obtained. The usefulness of formulas in social interaction is then not necessarily reserved for those who are interested in social life, but for all who are capable of recognising their own needs and wants. The social deficit in autism does, then, not preclude the attractiveness of formula use from a social interactive perspective, as long as 'social interaction' is understood to have a functional or instrumental component to its meaning.

Incorporating formulas into the ‘grammar’ of normal, productive language as well as language development is clearly important in the analysis of repetitive and echolalic language in autism. The use of formulas depends on different processing mechanisms to those used for truly productive language, depending on the SSC module, rather than the more specifically linguistic, in the Chomskian sense, GAM. Wray and Perkins (2000: 23) point out that, since the SSC module cannot help but be impaired in autism, perhaps our expectation would be highly unformulaic language rather than the reverse. Once again, neuropsychology is not yet in a position to address this question realistically at present. In particular, formulaic language appears to have a robustness beyond that of productive mechanisms, as evidenced by aphasic data (Wray, 1999).

2.4. Conclusion
Repetitive language in autism has been of interest to researchers since the mention of echolalia in the original definition of autism by Kanner in 1943. This interest has produced work which focussed on its form, function and latterly its cognitive and neuropsychological underpinnings. Researchers have, however, chosen to focus on echolalia almost as if this were the sole realisation of linguistic repetitiveness in autism and have, possibly because of this focus, stressed the difference between autistic echolalia and the types of repetition that occur in non-disordered language. Underlying this trend, there is an implicit homage to the notion of modularity in language, such that its components are seen as separable and mutually distinct. Thus echolalia has been seen as a pathological symptom of a disordered system, with no relationship to productive language. This thesis aims to redress the balance and therefore considers echolalia and repetitiveness in relation to the complete autistic linguistic system. Further to this, the use of language by autistic people is also considered in relation to that of non-autistics. The notion of linguistic processing which informs the analysis is, then, essentially interactive.
3. Methodology

Data for the study was collected between March 1995 and July 1996 from 6 adult research participants. These participants all had diagnoses of autistic spectrum disorders and were resident in autistic communities in Yorkshire. Of the six study subjects, only one, Tom, had a diagnosis of Asperger's syndrome, while the remainder had been diagnosed with autism. Details of the study participants are given in the table My: i shown below. It should be noted that the names and places of residence of the participants have been changed throughout the study to ensure confidentiality.

<table>
<thead>
<tr>
<th>Study Participant</th>
<th>Place of Residence</th>
<th>Age at Time of Recordings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tina</td>
<td>Forest House, Yorkshire</td>
<td>25</td>
</tr>
<tr>
<td>Phoebe</td>
<td>Forest House, Yorkshire</td>
<td>27</td>
</tr>
<tr>
<td>Gary</td>
<td>Forest House, Yorkshire</td>
<td>24</td>
</tr>
<tr>
<td>Mary</td>
<td>Forest House, Yorkshire</td>
<td>26</td>
</tr>
<tr>
<td>Tom</td>
<td>Midwell House, Yorkshire</td>
<td>33</td>
</tr>
<tr>
<td>Penelope</td>
<td>Midwell House, Yorkshire</td>
<td>28</td>
</tr>
</tbody>
</table>

The researcher visited the research participants before beginning data collection in order to familiarise them with both the researcher and the recording equipment. Selection of study participants was made on the basis of caregivers' recommendation and volubility. Criteria such as cognitive ability were not taken into account since the intention was to examine the talk of a variety of people with autism in order that comparison could be made between them. Audio and video tapes were made of conversations between the autistic research participants and the researcher, with the occasional presence of other participants. With the exception of Tina, these other participants were not central to the talk. Talk was intended to be as informal and naturalistic as possible although, since all of the research participants were resident in autistic communities, the environment was sometimes more formal than may have been desirable. However, since those participating in the study were used to these environments it is presumed that this was not especially detrimental to data collection. The data was then transcribed according to Conversation Analysis (henceforth CA) conventions based on Psathas (1995), and subjected to structural linguistic analysis and analysis using the Conversation Analysis methodology. The latter was used to provide greater depth to the
study than would have been possible with a purely linguistic analysis. The transcription conventions can be found in Appendix 1 and the transcriptions in Appendices 2 - 7 of the study. It should be noted that some deviations from the more usual transcription conventions were made. In particular, IPA symbols are used to indicated tone movement rather than CA symbols. This was done to allow for greater detail in the transcription of tone movement. Further, curly brackets are used to mark off words which are transcribed phonetically rather than the more usual square brackets. This was done to eliminate any possible confusion with the CA use of square brackets (to indicate overlap). The transcription conventions used in this study are then a mix of IPA and CA conventions. The transcription was checked for accuracy by a Linguist working in the Department of Human Communication Sciences at Sheffield University.

Tone movement was transcribed due to the importance of prosody and prosodic deficit in the field of autistic language research (Paccia, 1982; Dawson, 1996; Baltaxe, 1985; Tager-Flusberg, 1993; Simmons, 1975). A particular focus in this study was to investigate the nature of the prosodic deficit; that is, whether prosodic or intonational deficits were pervasive in autistic language, and, particularly in the latter case, was this at phonetic or phonological levels. A deficit at the phonological level is far more suggestive of a superordinate linguistic deficit than one which exists at the phonetic level (Wells et al., 1995).

The CA methodology was included in the study as workers in the field of autistic language research have long since recognized the need for work which investigates in depth the nature of the conversational impairment in people with autism (Baltaxe & Simmons, 1977; Baltaxe & D’Angiola, 1992; Bennet-Kastor, 1994; Fine, Bartolucci, Szatmari, & Ginsberg, 1994; Krantz & McClannahan, 1993; Local & Wootton, 1995; Paccia & Curcio, 1982; Tager-Flusberg, 1995; Thurber & Tager-Flusberg, 1993), in addition to studies which aim to investigate impairment in linguistic competence or functioning (Baltaxe & D’Angiola, 1992; Bartolucci, Pierce, & Streiner, 1980; Frith, 1989b; Mundy, Sigman, & Kasari, 1990; Paccia & Curcio, 1982; Rumsey, et al., 1986; Simmons & Baltaxe, 1975; Tager-Flusberg, 1981; Tager-Flusberg, 1993; Tager-Flusberg, Calkins, Nolin, Baumberger, Anderson, & Chadwick-Dias, 1990).

In the main, researchers interested in the talk of those with autism have used techniques such as discourse analysis within a quantitative study framework to uncover the specific features of autistic discourse and conversation. Such studies have been of great importance in identifying discourse strategies used by autistic language users, but have the disadvantage of blurring the details of autistic talk managment; that is, one is left no wiser as to how the various strategies identified in quantitative studies are realized in the context of actual conversations. The use of qualitative research techniques such as CA can therefore be complementary in “offering an apparently 'deeper' picture than the variable-based
correlations of quantitative studies” (Silverman, 1993: 15). Indeed, as noted by Fine et al. (1994), rather than a sharp divide existing between researchers in the field of autistic discourse on the grounds of methodology, there is a recognition that a qualitative approach using a case-study design is essential in order to understand precisely how conversational ability is deficient within the autistic population.

CA has been used to investigate various subgroups within the more generally disordered language population (for example, Edmonds & Haynes, 1988; Local & Wootton, 1995; Wilkinson, 1995; Willcox & Mogford-Bevan, 1995). It should be noted that studies focusing on conversational interaction are of particular interest when considering the autistic spectrum group, since the more general description of “deficits in pragmatic functioning” (Tager-Flusberg, 1981: 52) (see also Chapter Two above) has long been associated with this group. The ethnomethodological roots of CA (Garfinkel, 1967) have encouraged in practitioners the development of a strongly data-driven perspective. As expressed by (Schiffrin, 1994):
4. Tina

4.1. Background

4.1.1 General
Tina is a twenty five year old woman with Autism resident at Forest House Autistic Community in South Yorkshire, England. She is verbal and her carers classify her as echolalic. She has mental retardation as well as epilepsy for which she takes medication. At times Tina can exhibit challenging behaviour, manifesting in physical aggression and loud repetitive outbursts.

4.1.2 Social and emotional
Tina falls into Wing and Gould’s social category of active but odd (1979), since she usually enjoys company and will participate in social activity and even take an initiating role in a social context. In common with Gary (see chapter 6 below), she has a marked fascination with emotional behaviour. She appears to be intrigued by acted or pretend emotional displays. Social routines such as handshaking also arouse her interest.

Tina’s epilepsy necessitates constant one to one care, hence Tina’s caregiver takes part in the conversations with her and is present throughout the administration of the Intelligence Test. Tina has formed a particularly strong relationship with this caregiver at Forest House. It is believed that without this relationship her behaviour would be far more challenging than it is at present.

4.2. WISC-R Intelligence Test
Tina was 25 years old when the Wechsler Intelligence Scales for Children-Revised (henceforth, WISC-R) (Wechsler, 1974) was administered. The test took place in a closed room in the day centre of the residential unit where she lives. Her primary caregiver was present. Tina was restless throughout the testing and her attention often had to be brought back to the tasks by both the researcher and the caregiver. It was sometimes necessary to repeat questions more than twice which, according to the directions given in the WISC-R manual, invalidates obtained test scores. However, it is noted that even when questions were repeated Tina’s overall raw test scores were extremely low, falling below the baseline for obtaining either a scaled verbal or performance IQ score.
### TT: i-WISC-R: Tina’s raw scores

<table>
<thead>
<tr>
<th>Verbal Tests</th>
<th>Raw Scores</th>
<th>Performance Tests</th>
<th>Raw Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>2</td>
<td>Picture Completion</td>
<td>0</td>
</tr>
<tr>
<td>Similarities</td>
<td>1</td>
<td>Picture Arrangement</td>
<td>0</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>2</td>
<td>Block Design</td>
<td>0</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>2</td>
<td>Object Assembly</td>
<td>1</td>
</tr>
<tr>
<td>Comprehension</td>
<td>0</td>
<td>Coding</td>
<td>0</td>
</tr>
<tr>
<td>Digit Span</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given both the difficulty Tina had in responding to the questions and the rather disappointing results obtained, there are few reliable conclusions that can be drawn. The verbal subtests have slightly higher scores than the performance subtests, but, once again, the reduced overall profile makes any conclusion unsound.

### 4.3. Speech

#### 4.3.1 Consonant lengthening and devoicing

Tina often lengthens utterance final consonants, for example:

T1a

S  `right (0.6) what d’you ’call `this *holds up thumb*
    (1.6) ‘what is jt
T  (0.7)fum:: =

T1b

C  (0.6)` what
T  (0.6)we have to do our(0.5) we have (.) to do our (0.9)traffic,lightss*

T1c

S  [ you  ] can have some in a ` minute
    (1.0) how many ’days in a week ’Ti[na ]
T  [when] (.) an (.) can I have some ’li::ne{zss}

T1d

C  (.)` right (0.5) now(0:) [’what is ’Sushie’ asking yer  ]
T  [ when can I-( .) when can I have some,li::ne{sls:}

T1e

S  (1.1) that’s ‘what you, do with your, shirt (.) innit
T  (1.0) ‘I ave to keep 'warm:
Tlf
S (5.0) right (.) I need my "trees
T (2.7) why do I have to do any "sums:

Tlg
C (.) 'when sh- can (.) 'when sh can she [' earn it ]
T [when (.)] am I gonna earn more
'li::ne{z::s::} =

Tlh
S [ you're 'over ex cited (.),aren't you ]
T (.) 'guess what (1.2) out alo ng the angelas ::
( .) a :ll the waybound { from ( .) 'w:adz:to::z::} sings: creak

Tli
S (1.1)what "sound do they 'make
T (1.1){b:sz:s:[sz:s:::]} |

Note that in Tlc, Tld, Tlh and Tli there is some considerable devoicing of the final consonant as well as lengthening. Consonants are commonly lengthened and partially devoiced utterance finally in non-autistic conversation (Laver, 1994) to indicate a suitable turn transition place (Langford, 1994). It has also been noted that segment duration in children's speech is often extended (Smith, 1994). This has been attributed to children's less developed motoric ability possibly arising from neurophysiological factors (Tingley and Allen, 1975; Sharkey and Folkins, 1985; Schwartz, 1988; Smith, 1992, cited in Smith, 1994:156).

Possibly due to her epilepsy and the medication necessitated by it, Tina has a generally dyspraxic presentation. It is feasible that the prolongation of segments in her speech is a result of circumscribed motoric function. However, we should note Rumsey et al's findings (Rumsey, Andreasen, & Rapoport, 1986) in relation to affective flattening which suggest that medication should not necessarily be considered primarily causative with regard to linguistic features in a disordered population. The specific location of particularly prolonged segments as well as the abnormal extent of lengthening do, however, warrant further explanation. It will be noted that the conversational environment preceeding the production of these features is often a wh-question. On one occasion, (Tlh) the wh-word is produced by Tina as part of the community wide formula "guess what". Since Tina's handling of wh-questions is discussed separately below, it is not proposed to offer a detailed interpretation of this phenomenon here. We merely note that excessive prolongation of segments frequently occurs in utterances produced following wh-questions.
It should be noted that wh-words are not always indicators of interrogative structures. Wh-words may occur as relative pronouns in non-interrogative constructions or as relative pronouns in elliptical interrogative constructions such as is shown in T1h. A possible interpretation of Tina's overly overt stressing of utterance final phonetic signifiers in the wh- environment is that Tina understands all wh-words to be indicators of interrogative structures. Since she shows awareness of adjacency pair conventions elsewhere it can be assumed that when Tina is able to definitely recognise the first part of such a pair, her second part contribution is then delivered with gross emphasis.

The possibility of circumscribed motoric function is also suggested by Tina's utterances which contain unclear articulations. While these utterances are difficult to identify as speech errors, since they do not always have an obvious target, they do recur consistently throughout the transcriptions. T1j and T1k exemplify these productions.

T1j

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T</td>
<td>(. .) I have got a {palu&gt;nts}(. .) I have got a 'coin(.) from (. .){klin} (. .) palace</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>(. .) `have you 'love</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>T</td>
<td>[(groaning)]</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>[she means Buckingham Palace]</td>
<td></td>
</tr>
</tbody>
</table>

T1k

<p>| | | | |</p>
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<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>S</td>
<td>(. .) why's the (. .) witch 'angry</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>(2.6) 'why's that, witch 'angry</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>T</td>
<td>(. .) cos she's a {tfiattmm} (. .) guess what</td>
<td></td>
</tr>
</tbody>
</table>

The caregiver's interpretation of Tina's utterance at line 1 of T1j indicates that the target in this case is "Buckingham". Whether these types of misarticulation are due to a deficiency of phonological or planning ability is not possible to judge, however, given the general lack of identifiable targets.

4.3.2. Vowel lengthening

Tina often lengthens vowels. Again, this is most often a characteristic of utterance final words as in T1 above and as exemplified below in T2. Vowel lengthening is not always utterance final as shown by T2b, T2c, T2f and T2h.

T2a

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>(2.3) I'll bring you some 'more next time I`come</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>(2.0) i - if you're' good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>(1.0) if you're good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>(.)<code>yeah</code></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>(0.4) I should think you jolly well `wii::ll</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As with the consonant lengthening and devoicing above, vowel lengthening is a feature of normal speech, particularly in relation to the placing of stress, nuclear tone and in utterance final position (Laver, 1994). Again, Tina’s use of the feature is comparable with normal use and would be considered unimportant were it not so exaggerated, the most extreme example being T2d. Her preferred use of lengthened vowels seems to be for the purpose of emphasis as in T2f above. It is notable that in T2a and T2b vowels are lengthened in combination with a pitch movement on the relevant syllable. In non autistic speech, the combination of nuclear pitch movement, segment lengthening and amplitude increase on one syllable assists
us in recognising that syllable as the most important within an utterance in a conversational context.

From the examples above, it is clear that Tina does not always combine all three of these features to isolate a syllable as central to the utterance in which it occurs. Tina, on some occasions, uses just vowel lengthening to pinpoint a syllable within an utterance with no accompanying pitch movement or noticeable volume increase. There is a possibility that there are very slight movements in pitch and volume which are undetectable without the benefit of electronic measurement. However, ostensibly, it would appear that exaggeration of segment length is a phonetic resource used by Tina to indicate constituents of particular importance. Such a feature would make sense if it were the case that Tina’s use of pitch movement were circumscribed - a proposition which is considered below.

4.3.3. Pitch movement and amplitude in speech

Thus far we have considered segment (specifically vowel) length, duration and devoicing of final segments. The first two features together with rate of speech, loudness, timbre and pitch movement make up the linguistic phenomenon known as prosody, that is the non-segmental features of speech in which the syllable is the significant unit (Wells et al., 1995). Autistic language users are noted to have problems relating to their use of prosody (Baltaxe, 1984; Baltaxe & Simmons, 1985; Dawson & Lewy, 1989; Frith, 1989; Local & Wootton, 1995; Rumsey, et al., 1986) though, due to the variation between autistic speakers regarding their use of prosody and also the subtlety with which such a difficulty can manifest, this is a difficult area on which to comment. Within Tina’s speech, we see an apparent lack of consistency in her use of prosody, it being perhaps more appropriate to consider prosodic idiosyncracies as tendencies rather than definitive, regularly occurring and predictable features.

On occasions, Tina uses monotonous tone, identified in DSM IV (APA, 1994) as a likely autistic characteristic. For example:

T3

T (. ) Sushi:xe(.) I would like you to shake your ‘fa:ce

where there is extension of the vowel in the final syllable but no pitch movement. As the final content word in the utterance, “face” would be expected to be the site of nuclear pitch movement. Further, since “face” is an unlikely constituent to occur at this point it would be the most likely candidate for nuclear pitch in contrast with, for example, “shake”. Likewise, there is absence of pitch movement in the presence of vowel extension in the following utterances from the same transcription (Transcription Three, 22.5.96: WISC-R):

T4a

T (1.2) blow it ‘ou:t
T4b
T (2.7) why do I have to do any 'su:m:s:

T4c shows no vowel extension however:
T4c
T (2.8) moo

T4d
T Cindy::

The conversational context for the above utterances varies. T4b is a discourse initiator, while T3, T4a and T4c are produced in response to the researcher’s questions. T4b not only has vowel extension but also final consonant lengthening. T4d, whilst having the pragmatic function of attention getting, actually involves Tina calling her caregiver. This type of utterance is commonly associated with a stylised tone contour in British English (“calling contour”) which involves a sequence of two level tones, one for each syllable, the pitch of each corresponding to approximately the start and finish of a fall-rise tone (Cruttenden, 1997: 120). T5 illustrates another feature of Tina’s speech in that new information is not signified intonationally, a feature which has been noted to occur in the speech of some autistic children (Baltaxe & Simmons, 1985). T5b also serves as demonstration of another feature noted by Baltaxe and Simmons (ibid., p.104); that of overprecision of articulation, in that there is no contraction of the auxiliary. This is most likely related to a prosodic deficiency.

T5a
T (0.9) he’s a “plumber” whisper

T5b
T (. ) I have got a {pal•u•nts} (.) I have got a 'coin(.) from (.) at (. ){klin} (. Xpalace

Tina also uses pitch movement idiosyncratically as in T6 below.

T6
S (2.6) how many ‘pennies (.) in a ‘pound
T (3.8) I’ve got a ‘two ‘pence

where the stress and falling pitch on “two” would have the function of contrast as its most likely interpretation within an utterance, and would be acceptable as a response to a question such as “have you got a five pence?” As a declarative rather than a responsive utterance, T6 would be expected to show nuclear pitch movement on “pence”. The context in which T6 occurs, however, does not require a contour with contrastive function. Thus the misassignment of sentence stress on “two” rather than “pence” makes T6 sound contextually inappropriate, as if Tina were taking part in a different conversation.
T5a, above, is also interesting in that, here, the likely site of pitch movement is instead indicated by a change in voice quality, in this case, whisper. Falling tone in a declarative utterance of this type is most usual, with a pitch movement on "plumber", as the most important, indeed, here the sole, content word (Turner, 1972).

Tina is able to use pitch movement in a way that is more consistent with the conventions of British English. Indeed, in T7 below she uses contrastive tone correctly in a two clause utterance (despite the nonsensical content of the turn).

T7

C (5.7) a wheel(2.2) an a' ball
(2.0) what' are they
T (1.5) "it, has (0.5) an it 'hasn't"

The prosodic content of the prior other-turn here does, however, suggest that Tina may be using the carer’s tone contour as a model for her own, especially given the meaninglessness of the turn’s content.

Similarly, in T8, Tina correctly indicates the requested new clausal information intonationally:

T8

S (1.5) ow many darling
T (2.1) "two pieces"

In T9 below, Tina apparently uses appropriate intonation to produce interrogatives.

T9a

T (0.8) Sushie where's Jed ziah
T9b

T [ can I ] have some li:ne{zsss}

Finally, intonation contours during a counting sequence are compared below:

T10

T [ one ] (1.1) two (0.9) three (0.7) four (0.8) five (0.7) six (0.5) creak
an' seven (0.8) eight (0.7) nine (0.8) ten (0.6) eleven (0.5) 'eight creak
(1.6) [fifteen]

C1 (caregiver utterance)
C :=one two three four five 'six
'seven 'eight (1.5) nine that was 'nine look

While Tina shows an absence of tone movement for all but one member of the number sequence, the carer demonstrates a variety of tones while she counts. The only use of falling
tone by Tina occurs after she has linked the succeeding digit to the preceding sequence with "and". In the context, this could be considered an appropriate use of falling tone. Utterance final position does not seem to be a predictive factor in the use of pitch movement for Tina here, nor does item subsequent extended pausing. We should note, however, that Tina is prevented from finishing her counting sequence by repair-overlapping by the caregiver. A second counting sequence by Tina, occurring at lines 228-230 of Transcription Three (Appendix 3.1), is allowed to end naturally however. This second sequence also has only one item marked by falling tone: as is the case above, this is the digit "seven" which occurs mid-sequence. There is therefore a possibility that falling tone and the lexeme "seven" may regularly co-occur within Tina’s repertoire.

The pattern that emerges of Tina’s use of intonation is thus a complex one. Tina is evidently not incapable of using pitch in a manner comparable to that of non-autistic speakers of British English, and she is certainly able to manipulate pitch to some extent. However, at times her use of intonation is potentially pragmatically problematic for an interlocutor (for example, T6 and both counting sequences). The data also seem to suggest that Tina may sometimes use the prosodic features of voice quality, segment duration and amplitude in place of pitch movement, and that these features may compensate for the absence of pitch movement at times. An interesting point also arises in relation to the level of semantic and pragmatic ability when one considers Tina’s manipulation of prosodic features: Atkinson-King (1973) found that within a normal (child) population “the production of prosodic patterns never exceeded their comprehension” (Baltaxe & Simmons, 1985: 103). Other research also indicates that non-autistic infants during their first year are able to make receptive use of prosodic markers to segment speech and to differentiate their target language from other languages (Kent & Miolo, 1995). Further, normally developing infants of this age also show functional consistency in their productive prosody (Locke, 1995). Given the above conflation between productive and receptive competence, and since motoric ability is far from fully developed at the age of less than one year, the likely source of Tina’s prosodic idiosyncracies would then seem to be neuropsychological/linguistic rather than motoric/physiological. This same issue of motoric/physiological versus neuropsychologic/linguistic deficiency is taken up in a later chapter (Chapter 10). It may also have some relevance to the analysis of the voice quality feature in Tina’s speech.

4.3.4. Voice quality

Above we have seen Tina use both whisper and creaky voice within the conversational context. Creaky voice, also called glottal or vocal fry, is described by Laver (1996: 201) as phonation with low fundamental frequency, that is, pitch, and "strong adductive tension and medial compression, but little longitudinal tension, and with vigorous ventricular involvement" (Hollien, Moore, Wendhal, & Michel, 1966: 247). The auditory effect is of a series of rapid taps. Once this voice quality is initiated by Tina it persists over many turns.
Indeed, Tina may conduct entire conversations with this voice quality. The onset of creak in three sessions with Tina are shown below.

**T11a**

T (sings)

C ↓you-↓ (. ) ↓ I 'ope I didn't 'ear a ['swear word ] ↓ then

T [.hhhhhhhh]

T (0.6) ↓no x yer 'bloody well didn't ↓

**T11b**

C (2.9), count [em ]

T | one (1.1) two (0.9) three (0.7) four (0.8) five (0.7) six (0.5) an seven (0.8) eight (0.7) nine (0.8) ten (0.6) eleven (0.5) eight (1.6) [fifteen] creak

C [ el ev ] en

T (2.7) eight =

**T11c**

S (. ) [no:: cos you 'know what to-]

T [ no ::o::h ]

C [( )]

T gi me the hands Sushi::e::h creak

S ’[wh]at 'sweetheart

T (1.2){ tks} the hands Sushi::e::h creak

Creaky voice persists throughout the conversations from which T11a and T11b are taken. In the conversation from which T11c is extracted however, creaky voice is an intermittent feature. Laver (1994) describes creaky phonation as being used by some speakers as a marker of personal identity (ibid: 196). This would, however, not seem to be the case with Tina as she does not always use creaky voice consistently throughout all conversation. Cruttenden suggests its use as indicative of boredom or resignation (1997: 174), while at the discourse level, Laver suggests (1996: 330) that creak, or vocal fry, may be used as a signal by non-autistic English speakers as an indication of finality in an utterance. Again, this is clearly not the function of Tina’s creak since its occurrence is more pervasive than this.

As entertained briefly above in relation to prosodic features and control, there is a possibility that Tina’s use of creaky phonation may occur as a result of insufficient motoric control over vocal mechanisms. However, the use of creak could also be attributable to conversational factors. The onset of creak shown in the extracts above occurs at all times within the structural context of difficulty in maintaining the conversation for Tina, though it is not the case that difficulty in conversational maintenance always gives rise to the use of
creak. As can be seen below, Tina also has recourse to what we have called 'repetitive episodes' at these points. On some occasions, repetitive episodes themselves are combined with the use of creak. Tina is unique within the cohort of subjects in her use of this device to signify that she is having difficulty with the conversation, although all the subjects have recourse to some device in such a context. Paccia and Curcio (1982: 45) note the use of creaky voice by one of their five subjects although the environment in which it occurs is not discussed.

4.4 Repetition

Repetition occurs in many different guises within Tina’s language. In the first place, echolalia does not occur within her speech as originally defined by Kanner (1943; 1946) cited by Schuler & Prizant (1985:164) as “the rote and literal repetition of the speech of others”. Tina does not often use other’s turns as speech models for her own. Instead Tina’s own speech generally provides the model for repetitive utterances. In T12 below we do however see an example of Tina repeating part of an other sequence in an environment described by Paccia and Curcio (1982) as likely to provoke an immediate verbal imitation (or ‘IVT’ following Violette & Swisher, 1992:139); that is, a wh-question.

T12

S (1.6) can you`tell me (0.8) what a`thief is
T (1.3) I don’t kno::w
S (0.7)you don’t .know °what a thief is°=
T = can you ‘tell me::: (1.8) can you ‘tell me
what’s {am} (0.9) can you tell me what is a piece of ‘beef (.) `is:::

The various types of repetition within Tina’s conversational language are outlined here and discussed separately below.

1. Frames

The term ‘frame’ is used not in the conversational sense described by Tannen (1993), but in the structural acquisition sense used by Hickey (1993). Hickey suggests that children in the process of acquiring language use frames to enable them to master new structures. At first the frame occurs as an unanalysed unit combined, often incorrectly, with other constituents. Gradually the frame is broken down to be used more and more productively in more and more structures which eventually come to resemble correct adult target forms.

Hickey’s criteria for identifying frames are shown below.
1. the utterance is at least 2 morphemes long (necessary, graded)
2. the utterance coheres phonologically (necessary)
3. the individual elements of an utterance are not used concurrently in the same form separately or in other environments (typical graded)
4. the utterance is grammatically advanced compared to the rest of the child’s language (typical, graded)
5. the utterance is a community wide formula or one which occurs frequently in the parents’ speech (typical, graded)
6. the utterance is an idiosyncratic chunk (typical, graded)
7. the utterance is used repeatedly in the same form (typical, graded)
8. the utterance is situationally dependent (typical, graded)
9. the utterance may be used inappropriately, either syntactically or semantically (typical, graded)
(Hickey, 1993: 32)

2. Self as a model for repetition
Self not other modelled repetition is far more prevalent within Tina’s conversation. An example of this is given in T13 below. Reformulation is also a common feature of Tina’s self repetition and, again, this is a feature of T13.

3. Preferential collocations
Repetition within Tina’s conversation may have a lexical basis taking the form of ‘preferential collocations’; that is, certain lexical items almost always seem to co-occur within the same utterance. Further to this, coherence between utterances is often maintained through the choice of lexical items.

4. Repetitive episodes
Tina has so-called repetitive episodes where she cannot seem to move beyond the repeated phonological production of certain sequences. Sometimes these are recognizable words, either syntactically acceptable or semantically meaningful, or not: they may also be strings of complete nonsense. These repetitive episodes appear to be similar to tics or perseverative behavioural tendencies.

5. Non-autistic repetition
Repetitiveness within the conversation of the participants besides Tina is considered, in order that overt comparison may be made between autistic and non-autistic types of repetitiveness.

6. Scripted prompts
Finally, the use of scripted prompts to elicit responses from Tina are considered.

4.4.1. Frames - 4.4.2. Self as a model for repetition
Tina’s language was first described to the researcher by her carers as very echolalic. Her language is certainly very repetitive but seemed at first to consist more of frames (Hickey,
T14a
frame: “where’s my.....”
S tell me bout the’ swimming (2.6)
tell me bout the’ swimming,Tina =
T =’where’s my (.) ↓mummy em↓ (. ) ↓bear↓
S ‘where’s your m-=
T = ‘where’s my daddy ‘be:ar
(0.9) where’s my ‘dad
harsh voice quality
harsh voice quality

T14b
frame: “whereabouts is my.....”
T = ‘Sushie(.) whereabouts is my three likkle pig ‘book
(1.3)[it’s in ] my ‘boxs:;
S [ ( -)]
S (.) in your’ box
T (0.6) whereabouts is my ‘box

As with T13, Tina initiates both these sequences and uses her own first utterance as a model for her later utterances. The two examples T14a and T14b clearly demonstrate that Tina has the competence to ask the same thing in different ways, namely a request to be told the location of something, but prefers to use the same structure across local turns. In T14a, her question is neither relevant to nor recoverable from the preceding discourse. The progression to “where’s my dad” seems to be due to the obvious link between “daddy bear” and “dad”.

In T14b, Tina conflates an adjacency pair into one turn. Again, it is clear from this that the pragmatic function of the interrogative utterance is not the conventional one of facilitating the discovery of new information.

In all three examples, T13, T14a and T14b, the influence of Tina’s first turn is shown over her next turn or turns. The local frame operates on Tina’s discourse more strongly than the intervening other turns. The question naturally arises as to what can be motivating this type of repetitiveness. Perhaps the answer lies in simple perseverative tendencies. However if this were the case then surely Tina would be more inclined to make use of more standard types of echolalia.

4.4.3. Preferential collocations
Preferential collocations bear some similarity to the frames described in (1) above.
T15a

Preferential collocation: “shake” and “hand(s)”

S twenty ‘five to ‘twelve(0.7) have you got a ‘watch (2.3)° you haven’t got one(,), have you °

T (2.1) I’d like shake your ha ::nd

T15b

T [ no ::::o ::::::::h ]

C [ ( ) ]

T gi me the hands Sushi ::?: [ :e] Creak

S ‘[wh]at ‘sweetheart

T (1.2) shake the hands Sushi ‘e::h Creak

S (.) you ‘shaking my’ hand

Note the syntactic error in Tina’s first turn in extract T15a. These utterances are not like Hickey’s frames because the same lexical items appear in different types of construction. For example, T15c shows the appearance of “shake” and “hands” in a quite different context to one where the main concern is social routines.

T15c

S [ it is called a brolly (.) it’s called a brolly (1.6) that’s ‘very ‘good (,) ‘let me ‘write down what you [ ‘said] Creak

T [ it ] is called a shake yer ‘hands

Rather than a frame I suggest that these extracts show the preferential collocation feature referred to earlier in relation to the lexemes “time” and “right” in T13. Here “shake” and “hands” are not embedded in a rigidly inflexible structure. Rather, it appears that the two items merely co-occur with one another within an utterance. This co-occurrence of items has none of the implications for facilitating structure acquisition that is suggested by a Hickey frame. What can be noted however, is that operating over turns this type of preferential collocation, almost coincidentally, gives Tina’s talk the appearance of cohesion. A further point is that in all but one case, the utterances are initiators or responses to questions. Initiation and interrogative response are, as mentioned above, notorious sources of difficulty for people with autism. There is a possibility then, that preferential collocations provide a ready-made resource for Tina to use when she is presented with a tricky conversational task, as well as enabling her to bring cohesion to her discourse.

Frames and preferential collocations are described above as if they were discrete entities. A perhaps more enlightening perspective can be gained however if we look at Tina’s utterances in relation to both features at one and the same time:
This is apparently an example of Tina playing with the collocation "shake" and "hands" in a way which is suggestive of an abstract frame. She also does this in T15c with "it is called a shake your hands". In both cases, Tina makes a non-meaningful utterance. She is apparently replacing one lexical item with another: in T15c using the previous turn as a model and in T15b using the favourite collocational combination as a model. The T15c example is especially interesting since the substitution of "shake your hands" for "brolly" indicates that "shake your hands" is in some sense treated as a single unit by Tina. "shake your face" also implies the operation of some type of holistic chunking of utterances, this time through the breaking down of a single unit and attempted combination into an incorrect sequence. Rather than merely being a mistake, the example in T16 seems to be playful in delivery and manner. This playing with language could only be possible if Tina had the concept of "shake your hands" as a single unit on which to base the reworking. "shake your hand" must then exist for Tina as an unanalysed ‘chunk’ somewhere in her linguistic inventory. Possibly it began life as a formula, is now more often a preferential collocation, gradually moving towards greater and greater productivity.

T14 and T15c imply that structural frames similar to Hickey’s may operate within a local field, since the structural influence occurs only in following turns to the original model.

There are, then, two strategies at work here: the use of a frame or preferential collocation to assist in the formulation of an utterance when conversational work becomes excessively difficult for Tina; the use of previous turn structures on which to base new turns. There is also a possibility that the preferential collocations here may be holistic chunks of language that have progressed to stages of semi-productivity. At times they look like chunks and at other times like idiosyncratic collocations. At no time do they look like fully productive language.

One final example to show the influence of structures in a local environment elsewhere in the transcripts is shown below at T17.
Again, Tina’s initial utterance is in response to a question that was obviously causing her difficulty. The same question repeated by Cindy, the caregiver, gives rise to a second instance of the structural frame “I have to” utterance with an item more relevant to the question (“put it round my shoulder”) in the empty slot of the frame structure. It is almost as if Tina’s conversational rules allow a common structural frame to continue across turns in place of, or perhaps equivalent to, topic. Thus, local structure repetition may work in the same way for Tina as topic does in non-autistic conversation, that is, discourse is cohered structurally rather than by means of topic.

4.4.4. Repetitive episodes

This type of repetitiveness within Tina’s language is quite different from the types we have seen illustrated above. Here, Tina seems less driven by a willingness to communicate in any way at all. These repetitive episodes are more like perseveration than any other type of repetitive language encountered thus far.
TINE 'LOVEY

C (.') no take- =
T = chick Tine lovey
C (.') what do 'Steve [and' Michael 'do] in 'that' socialising book =
T [, Tine lovey ]

'chick 'chick Tine lovey
C (.') listen (.') listen 'look at' me: (0.8) listen
(.) you're not [, talking 'nicely , are you]
T [chick chick chicken Tine lovely

These episodes seem to emerge gradually from the discourse and fade just as gradually. They are possibly linked to excitement but appear to have no relation to other types of repetitiveness in Tina's language. The phoneme strings or phrases do not seem to occur anywhere else. The rhythmic nature of these repetitive episodes precludes the possibility that they are dysfluent in character.

4.4.5. Non-autistic repetition

Within the transcripts of Tina's conversation it becomes clear that the language of the non-autistic participants exhibits repetitive features. Non-autistic conversational participants make use of repetition for a variety of reasons and effects. Johnstone cites the following as normal uses of conversational repetition (1994: 6).

Repetition can be a bridging device in conversation, a way of dealing with interruption, or a way of validating what another speaker has said. Repetition is a persuasive device. It is one of the primary forms of play.

and again:

Repetition functions didactically, playfully, emotionally, expressively, ritualistically; repetition can be used for emphasis, or iteration, clarification, confirmation.

From the transcripts of Tina's conversation it is clear that it is not only her who uses repetition. The extracts below exemplify the use of repetition by Tina's co-participants.

C (1.8) every 'day
(1.2) an-(.) an 'tell Sushie you went, walking, yesterday
(0.6) what did you see on that, pond
T (1.5) [some 'ducks:: ]
C ["what did you see"]
C (0.5) some ducks
(.) [all different ] 'kinds
T   [daddy 'ducks:]   creak
   (0.8) daddy ducks:
   creak
C  `daddy ['ducks ]
S   [(cough)] =
T   = daddy ducks (.) and 'muver ducks  creak

T20b
S   (0.8) I'm 'pleased to 'meet` you
T   (0.9) 'pleased to 'busy, meet yer
S   (.) 'pleased to(.) [`meet ] `you

T20c
T   |Sushi:e (.) I have got a daddy Simon
S   (0.6) I have you got a 'daddy `y Simon!

T20d
T   | when can I go when it's my 'turn Sushi:e
S   (.) I don't 'know when is it your 'turn

T20e
T   (0.8) she calls me(.) chikchekTine {1o'von}
C   (0.6) she calls her chic[ken ] .pi:e =

T20f
T   = Sushie(.) whereabouts is my three likkle pi: book
   (1.3)[it's in ]my 'box:::
S   [(    -)]
S   (.) in your 'box
T   (0.6) whereabouts is my 'box
S   (.) I don't 'know whereabouts is your 'box (3.9) that your 'box

Some of these examples are reformulations, as in T20b where S repeats Tina without the unnecessary lexical item "busy". This is reminiscent of caregiver language for the purpose of correction (Bennet-Kastor, 1994) where mothers have been found to repeat around 22% of their two year old's language (Bennet-Kastor, 1994:162). In T20a Cindy repeats Tina's utterance and then expands it (Bennet-Kastor, 1994; Johnstone, 1994). Interestingly, in her third turn, Tina repeats Cindy and expands on her utterance. The two then appear in this instance less like caregiver and infant and more like mutually supportive co-operators in
discourse. T20e is a reformulation by Cindy, again, apparently for the purposes of correction. In T20f, the researcher repeats Tina's turn, and by doing so returns the original question to Tina. This is made clear by the use of intonation where S stresses "is". Likewise in T20d, where Tina's question is used by the researcher to set Tina a question.

The key factor with these non-autistic repetitions is intonation. The researcher and caregiver make clear with their intonation patterns that they are consciously re-working the model utterance to make clear the discourse function. Simpson (1994) illustrates the importance in normal discourse of the intonation pattern in repetitions. Since nothing, or very little that is new, is added to the lexical or syntactic content of the utterance, the intonation is the only means whereby an interlocutor can be made aware of the significance and intended function of the repeated utterance.

As noted above, Tina's other-repetitions are much less frequent than those of her co-participants:

T21

T

/\ sh' /angry little wi:\:\:\:\:\:\\itch\ \\

S (0.7) 'angry little witch

T (1.2) 'angry little witch

Here Tina appears to use herself as the model with an S turn intervening, rather than to other-model. The "angry little witch" sequence is one introduced by her, here and in other contexts. As has been noted above, Tina is far more likely to self-repeat than other-repeat:

T22

1 S =\:\:\:\:\:\\yes:\:\:\:\\:\\ (1.3) a:\:\:\\ and (.) how many'ears have` you `got

2 (3.3) how [m]any' ears

3 T [e]

4 S (1.5) how' many

5 T (0.9) one

6 S (1.1) how' many

7 T (0.8) one

8 (2.7) "two°

9 S (0.5) how' many

10 T (0.7) "two°

11 S (.) two(,)° that's it°

12 (0.9) now (.) think hard 'Tina

13 (1.5) 'how many' legs (.) has a` dog 'got

14 T (3.3) "one°

15 S (0.6) 'how many' legs

16 T ONE
Here, Tina seems unable to disinhibit "one" as a response to the researcher's questions. This sequence is somewhat puzzling in that Tina does eventually provide a correct answer to the researcher's first question (line 8). It is not, then, clear whether her persistently incorrect responses to the dog's legs question are due to genuine confusion, inability to disinhibit perseverative responding, or even willfulness in the context of unwelcome questioning. Self-models similar to the above are pervasive throughout the transcripts. Their genesis is often clearly external to Tina herself. T21 exemplifies this: the angry little witch is a character in a book which Tina and her caregiver have been reading together.

T23 below shows Tina using a self-model as a basis of a turn in which inability to disinhibit repetition manifests in the production of a syntactic error. Here plurality is incorrectly signified in company with the singular determiner. Plurality also gives Tina difficulty in the self-modelled frame-type repetition at line 6 of T17 above, where "shoulder" is supplied instead of the more conventional "shoulders".

Since Tina produces few utterances which have a productive appearance, it is difficult to ascertain whether errors of syntax are related to a restricted linguistic competence, or whether influence from the structure of the local context is so strong that it adversely affects current utterance structure in a similar way to perseverative speech errors in normal language (Harley, 1995). T24a below is suggestive of the former explanation, since there is no obvious model for Tina's errorful utterance in the local context. As with T24 and T17, the error concerns a noun phrase; in this case the determiner. It is however noted that some native speakers find the use of the determiner in T24a acceptable.

A restricted linguistic competence may be expected, given Tina's performance on the WISC-R intelligence test. Such an interpretation of the data is, however, suggestive of an interactive rather than a modular account of language in autism.

4.4.6. Scripted prompts
A further type of repetitive language evident in the interaction between Tina and her caregiver is the use of 'scripted prompts'. The caregiver uses these in an attempt to elicit topic-focused language from Tina:
T25
C tell Sushie 'what you got to do when you 'cross road
T (1.8) 'look both ways
C (0.6) cos (.) if you 'don't you'll get
T (1.1)°squashed°

The caregiver uses the format of an imperative "tell" construction to elicit a response from Tina. In her second turn the caregiver then uses rising intonation together with a sentence lacking its main verb (that is, a prompt question) to elicit more on the same topic from Tina. The script is evidently well-rehearsed and represents an attempt by Cindy to make Tina’s conversational contribution cohesive in a non-autistic way. This strategy is often attempted by Cindy, but more often than not is unsuccessful:

T26
C (0.8) tell her you 'went to library last 'week and you got two books (1.6)
and (.) 'what they call em
T (0.6)w-(.) when can I do me 'eating 'out book

In T26 above, Cindy tries the same structure with the imperative “tell” construction, but this time Tina does not give a response. Instead there is an extended pause (line 1). Possibly this is because this routine has not been rehearsed as T25 had been. Cindy attempts a more direct wh-interrogative elicitation requiring a more specific response from Tina, who responds on topic though not in the way Cindy requires. Tina also fails to complete the adjacency pair, responding to a question with another question rather than a response.

Cindy continues to attempt elicitation of topic-centred discourse. Note the incomplete sentence + rising tone in line 1, to which Tina this time does not respond on topic:

T27
C =w-'what do they call them other books (0.6) 'eating'out (.) and (.), what Tine
T (.)((unintelligible))(. ) whereabouts is [(1.1) that 'Linda
C2
[((cough))]    
T (.) whereabouts is 'Linda
C (.) in the book
T (0.6)b-(.)w- ]
S [ isn’t ] that what it `says in the `book =
T =wh[e-]
C ˜[L]inda (.) and ˜Sue =
T =whe- (. )

whe-
C [(1.1)wh-(.) whe-(.) where `where do they ]'go for a ,meal
C2 [ ((coughing)) ]
T [(0.7)wh- wh when it’s ] ‘lunch is nearly’ over
The researcher and Cindy both join in in an attempt to elicit more topical conversation, using a combination of unfinished rising tone sentences, single-phrase topic-central utterances and direct wh-questions. Tina’s responses are on topic but not directly relevant. Her contributions are either dysfluent, hesitant or wh-questions. The dysfluency and hesitation may be incipient repetitive episodes such as is shown in T28 below. The wh-questions produced by Tina look very much as if they form part of the question and answer routine that normally accompanies the subjects dealt with in the book. However, as noted above, Tina has a habit of turning the roles around from responder to questioner. Eventually Tina reverts to a repetitive episode, similar to one encountered later in the transcript (Transcription Two: beginning at line 90). This time the repetitive episode seems to emerge as a result of Tina’s evident inability to continue with the direction that the discourse is taking:

T28

T = ‘where’s my daddy ’be:ar  
(0.9) where’s my ’dad  
harsh voice quality  
harsh voice quality

S (1.3) (hh)(hh) don’t, know  
[ when can I go when it’s my ’turn Sushi:e  
T (0.5) when it’s- (. ) when can I go ups-(( sniff))(0.5) my ’turn  
(1.1) when are you ma- (1.0)m(.)you know what’ I am (. ) ‘Sushi:e  
S (. )’what  
T [ a little- ](. ) ‘nice ’little (0.4) little m( 2 sylls)) ’Sushie  
( .) nice ’little(. ) little little (0.7) what’s you ‘call it (. ) ’Sushie (0.6)  
‘little little (0.5) ’little little (1.2) c’m ere ’Tina(.)[ lovey] nice little
C [( )]  

Tina’s attempt to reverse the roles of question poser and responder has not met with success here, but can be seen as a precursor to a repetitive episode. Similarly, Tina’s attempts to use frames/ preferential collocations prefigures the repetitive episode. The use of repetition, then, begins to have the appearance of a strategy to cope with conversational difficulty. An indication of Tina ultimately giving up on being able to produce any kind of acceptable discourse contribution, is the occurrence of a repetitive episode.
4.5. Communication in Conversation

Thus far it has been seen that repetition can be helpful for Tina in conversation in that it may enable her to both initiate and contribute to talk. In extreme circumstances, it may also enable her to close the discourse by reverting to episodes of repetitiveness. The possibility has been considered that the various types of repetition in Tina’s repertoire may even represent a means whereby she is able to introduce new structures into her competence. A further advantage of using repetition as a conversational strategy is that it creates, albeit to a limited extent, the effect of cohesion; this point is important when one considers the difficulty autistic language users have with maintaining topic in conversation (Baltaxe & D’Angiola, 1992; Tager-Flusberg, 1993; Willcox & Mogford-Bevan, 1995). Thus, repetition is by no means an ‘empty’ feature of Tina’s language: it enables her to do a great deal both linguistically and conversationally. However, one distinct disadvantage of repetitiveness is that it clouds the issue of meaningfulness in language. We are left with the question of how communicative is this type of language?

If Lyons’ (1977) contention that communication implies intent and also choice is accepted, then, on both counts, Tina’s preferential collocations and frame-type utterances preclude her from the communicative, since the range of utterances available to her is necessarily restricted both by her limited repertoire and also the strong influence exerted by her own immediately preceding turns. Her choice of language is evidently highly circumscribed and her intention seems to be shaped largely by chance other utterances or the structure rather than the semantic content of her own utterances. Other features of her language seem to reinforce this notion, for example, the conflation of adjacency pairs within a single turn and frequent overlapping, both exemplified above.

Closely related to the notion of communicativeness, meaningfulness can be assessed through the examination of a semantic system. As we see below, Tina’s system certainly seems to exhibit signs of deficiency:

T29

S  (0.9) now (0.7) what d’you “call (.) a ‘baby’ cow
T  (2.8) moo
S  (0.9) it says moo(.) yeah
   (.) whas a’ baby ’cow ’called
T  (1.9) ’sheep
S  (0.3) ’a ’sheep (0.6) q kay “
T30

C 'what' is a 'knife
(1.9) you 'know what a 'knife is 'don't you
T (2.3) you do it with a 'fork
S (0.5)you 'do it with a †, fork † (.), yes ((clap))

T30 represents the culmination of an extended sequence during which the knife question was asked seven times by both Cindy and the researcher. During this sequence, Tina evaded response by herself repeatedly asking a question ("where's Harry?"). Tina's transcripts contain many such examples. Her actual responses to the questions, shown in the extracts above, are related, but not strictly relevant, to the required response. Again, it should be remembered that wh-questions are known to be problematic for autistic people. However, there is clearly difficulty over and above that which exists at discourse level in T29 and T30, such that Tina is unable to provide a clear and unambiguous response to the questions posed.

When expressive linguistic ability is restricted to such an extent, communicative ability must be necessarily affected. The concept of cohesion in discourse may also be a problem for one whose semantic expression is limited since 'topic', the usual means of cohering discourse, is linked to semantic awareness. This semantic limitation may then be related to Tina's tendency to cohere her talk by structural rather than topical means. For example the following utterance follows a long period of "Can you tell me Tina, what is a . . . ".

T31

T (0.8) {kænɔʔ}- (.) can you tell me
S (0.8)what =
T = Sushie (.) where {tʃz-ə} (.) where is a 'fan tastic
S (0.4)'where 'is fan tastic
T (0.7) 'no::(.) can you (.) 'tell me(.) where is a 'fan'tastic

T32 precedes the T30 sequence above and, as with T31, follows an extended questioning sequence.

T32

S ( . )'what's a ,knife
T (1.0)'no:: (.) 'where's(,), Harry
S (1.6) I don't ,know where 'Harry is

In both T31 and T32 Tina repeats an utterance over and over again, effectively taking over the questioning role from the researcher and forcing her into respondent position. Harry was not relevant to the discourse until Tina's mention, while Tina's utterance in T31 makes no sense in conventional terms. The use of "fantastic" as a noun further implies that the
content of the question is not of primary importance. Function and structure seem to be more salient here. The overarching implication of T31 and T32 is that Tina’s use of these utterances is not semantically competent. These utterances seem to be far more consistent with a holistic strategy where frame-type structures are combined with constituents whose semantic and discourse relevance is of secondary importance, than with a productively competent analytic strategy.

Structure and function then, seem to be more salient aspects of Tina’s discourse than do semantic expectations and requirements.

4.6. Summary

It is clear from the described features of Tina’s language, that, while repetition is prevalent, she is not particularly echolalic. Her use of her own utterances as models and those of others to help structure utterances rather than merely parrot them, gives an overall impression of some degree of productivity at work within a limited cognitive framework. Limited cognition as well as limited productive competence is further suggested by Tina’s syntactic errors, although, as mentioned above, such an interpretation of the data has far-reaching implications for the nature of linguistic processing in autism, and possibly in non-autistic language. Tina seems predisposed to put discourse functions before semantic relevance of her talk, particularly in the context of sequences in which she is clearly out of her depth. In the performance of these functions, repetitive strategies are mobilised. These strategies may overlap and interact with one another in complex ways and vary in the degree of productivity which underpins them.

The issue of cohesion has recurred often in the discussion of Tina’s conversation. Tina’s cohesive devices certainly seem idiosyncratic at times. Tannen (1993) discusses how participants’ expectations of discourse may form a large part of the understanding and expression within conversation. On this level, it is possible to see that Tina’s use of her past experience of the world is not comparable to that of her conversational co-participants. There is a disjunction between what she expects of others and what they expect of her in conversation. What we have seen demonstrated in Tina’s talk is Tina struggling with the conversational expectations of others, whilst they in turn struggle to manage hers. In short, a communication problem.


The problem is not only that there is language, but that it is so complex. Using language involves doing several things at once, any one of which can go wrong. That is, in using language I am making sounds (or inscribing them), shaping structures, interacting with people, remembering and evoking prior text, and referring to the world - all at once.
In trying to understand Tina’s use of language there has been a focus on what is lacking or idiosyncratic. By looking at her conversation from the perspective of so many levels to consider with so few resources to hand, however, one may take a more indulgent perspective. Communication with Tina is possible, so long as the notion of communicative can be defined according to the needs and uses of language users with autism. Telles Ribeiro (1993) speaks of analysing coherence within a text from the perspective of participants conveying “superordinate messages”, or a metamessage. From this perspective it may be possible to understand how it is that Tina may have made her talk cohesive beyond the use of structure alone.
5. Phoebe

5.1. General Background
Phoebe is an autistic woman resident at Forest House in South Yorkshire. Conversations were audio and video recorded between Phoebe and the researcher during August and September, 1995. The WISC-R intelligence test was also carried out but was not video recorded since it was felt that Phoebe might find this too distracting and hence a fair assessment of her cognitive ability would not be obtained. Phoebe was twenty seven years old at the time the recordings were made.

5.1.2. Social and behavioural
Phoebe has a somewhat passive overall demeanour and is unlikely to initiate actions of any kind. Since she does not actively avoid social interaction, nor does she interact in an eccentric manner, she falls into Wing and Gould’s second category of social subtypes within autism: passive (1979). She has obsessive behaviours especially in relation to food and drink, and has phases during which specific foods or drinks are preferred. At the time of the recordings, Coca Cola and tea were her favourite drinks and her interest in food was primarily focussed on various types of sweets. When Phoebe does initiate activity it is usually in relation to a desire to obtain food or drink, and on these occasions Phoebe is found to exercise extreme willfulness in contrast to her more usual passivity. Indeed, Phoebe’s obsession with drinking is so pronounced that she has been diagnosed as suffering from polydypsia (obsessive drinking). Obsessions within autism are frequently noted in the literature (Baron-Cohen, 1989; Rutter, 1985) and, it has been suggested, may give rise to compulsions or compulsive behaviour in order to reduce anxiety brought about by obsessiveness (Foa & Tillmans, 1980; Rachman, de Silva, & Roper, 1976). Phoebe’s perseverative scratching and eye-rubbing mentioned below may then be considered as compulsive.

Phoebe’s passivity is reflected in her restricted use of gestures and facial expression. This is in accord with Lord’s findings (1993: 308), based both on parental accounts of their autistic children and also empirical study (1993: 307). She has a tendency to sit in a slumped position and to be unresponsive to questions or conversation. The researcher, it will be noted, makes frequent use of repetition in an attempt to combat this lack of responsiveness; a strategy which is not always successful. Phoebe makes eye contact only very rarely and shows no particular tendency to respond to contact through touch. Smiling is also infrequent. Again, Lord found this to be a characteristic of children with autism (Lord, 1993). Phoebe has a stooped standing posture and walks on her toes.

On occasion, Phoebe perseverates physical reaction type behaviours, for example rubbing her eye or scratching. The movements begin abruptly and continue for longer than is
generally regarded as normal. Phoebe also often rocks whilst in a sitting posture, keeping her lower body and her arms still. During the recordings, Phoebe also exhibited narcoleptic type behaviours. As mentioned above, these behaviours may or may not be seen as compulsive (that is, arising out of obsession-induced anxiety). Perhaps a more productive way of considering this type of behaviour is to follow the argument proposed by both O’Gorman (1967) and Rimland (1964), who suggest that the autistic inability to fully comprehend their environment leads the autistic individual to focus on certain highly predictable elements of it; that is, they develop ‘obsessions’. When anxiety is increased through relatively increased unpredictability of environment, repetitive or apparently compulsive behaviour results as a means of bringing some familiarity, and hence control, to a chaotic situation. Such a model is attractive in that it seems to explain particular features of autistic conversation as well as the well-documented autistic foci of interests. One should beware however, that in making such a model account for conversational behaviour as well as physical behaviour, one may run very close to suggesting that the features of autistic language are explicable by the same mechanisms that govern non-linguistic behaviour. The various types of repetitiveness that occur within conversation and language must then be analysed most carefully since the theoretical implications are far reaching.

5.2. WISC-R Intelligence Test Scores

The WISC-R was administered in a closed room in the satellite house at Forest House where Phoebe lives and spends the majority of her time. Other than the researcher, no-one else was present in the test room. As mentioned above, the video recorder was not set up in order to minimise distracting influences during testing. Phoebe seemed more than usually alert during the test, at points even reaching a degree of excitability. At times it was necessary to bring her attention back to the questions by overt methods such as repetition, and attention focussing techniques. Depite this and in common with Tina, Phoebe’s test results were disappointing. Her scores were so low as to make obtaining a scaled score impossible for either the performance or verbal subtests.

<table>
<thead>
<tr>
<th>Verbal Tests</th>
<th>Raw Scores</th>
<th>Performance Tests</th>
<th>Raw Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>2</td>
<td>Picture Completion</td>
<td>0</td>
</tr>
<tr>
<td>Similarities</td>
<td>0</td>
<td>Picture Arrangement</td>
<td>2</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>4</td>
<td>Block Design</td>
<td>5</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>8</td>
<td>Object Assembly</td>
<td>6</td>
</tr>
<tr>
<td>Comprehension</td>
<td>0</td>
<td>Coding</td>
<td>0</td>
</tr>
</tbody>
</table>

Given Phoebe’s generally distracted performance and the low scores obtained, any conclusion made is unlikely to be sound. It may be noted that, whereas Tina obtained a
slightly higher score for the verbal subtests than the performance subtests, Phoebe’s scores seem roughly equivalent.

5.3. Speech

5.3.1. General
Throughout the recordings, Phoebe speaks with a low amplitude and sometimes rather quickly, running words together. A fair amount of her speech is not articulated clearly:

Ph1

1 Ph (‘mumbling while drinking))
2 S ‘yeah
3 (4.1) see the m-(.) whiskers are missing
4 (1.0) now (. ) what important ‘part’s ‘missing here (0.6)
5 (0.6) what’s ‘missing ‘there
6 (1.2) in ‘that’ picture
7 (.) ‘look at the ‘picture Phoebe
8 Ph (1.0) ar (. i -it’s (. ) funny those (. ) they’re standing up (. ) n see if they ‘are
9 ‘standing up ( . ) cn . hhh (. ) can’wee wee ((4 sylls (. ) 2sylls)) ( . ) all right
10 S what’s ‘missing ‘there’ Phoebe
11 Ph ((drinking noise))
12 S ‘can you ‘see what’s ‘missing↑
13 Ph (2.9) { δa wʊn:da sau:lɛf}

Ph2

S ( . ) now ( . ) these ‘pictures (. ) ‘tell a stor:ry (0.8) o´kay ( . ) about a
lady who [ . weighs herself ]
Ph [have a côte ( . ) an] { tɪkələʊʃəts}
( . )((( 4 sylls)))º

Ph3

1 Ph (2.1)yeah I have
2 S ↑‘where did you´go↑
3 Ph {wʊərˈeri}
4 S (0.9) ↑with´elly↑
5 Ph {wʊˈəli}
6 S (0.9)p-¨pwhelli
7 Ph no {wʊdˈdedi}
8 S (1.2) say a‘gain=
9 Ph ={wʊdˈdedi}
10 S with´gddy
11 Ph (1.4){wʊdˈdɡdi}slightly increased in vol and slight increase in pitch on stressed syllable
In line 15 of Ph3 and lines 3 and 5 in Ph5 above Phoebe uses a reduced amplitude to repeat the researcher's immediately prior turn. The repetition in line 3 of Ph5 is lexically reformulated since "get" is replaced by "buy". Such repetition as occurs in these two utterances may be termed echolalic although reformulation does occur in all of Phoebe's three above echoes: in Ph3 and line 5 of Ph5 Phoebe's echoes have prosodic alteration, while in line 3 of Ph5 there is lexical alteration of the model. Echolalia and repetition are dealt with in more detail below, but here it is important to note the use of reduced amplitude accompanying immediate echolalic utterances.

Reduced amplitude is also noted in Ph4, where the researcher has made 6 attempts to elicit a response from Phoebe. The successful interrogative form is the one which enables Phoebe to give a minimal response. Reduced amplitude here may be an indication of unwillingness to co-operate in the dyadic structure of question and answer routines. Interestingly, Paccia and Curcio found that yes-no questions were more likely to be echoed than wh-questions or sentence completion items (1982: 25). Here, it is the yes-no interrogative which elicits a non-echolalic, though minimal, response.

As mentioned above, the quality of Phoebe's speech can cause her interlocutor problems due to a lack of clarity. In Ph1 at lines 1, 9 and 13, and in Ph2 at line 4 her speech is incomprehensible due to imprecise articulation in company with reduced volume. At times,
though individual syllables may be distinct, Phoebe’s phonemic rendering of lexemes causes confusion for her co-participant: for example, in Ph1 at line 9 and throughout Ph3. In particular, the target utterance at line 13 in Ph1 is unrecoverable. Phoebe’s rendering of “liquorice allsorts” in Ph2 is consistent throughout the transcription. Here, she has inverted the /ʃ/ and /s/ segments. The target “with daddy” in Ph3 has her realising both /ð/ and /d/ segments as the tap [r] in a process whereby all non-initial conssonsants are harmonised. The /æ/ segment in “daddy” is also raised to become [e]. Phoebe’s third attempt at the target at line 7 is more successful in realisation of the alveolar segments, but harmonisation continues to operate so that the /ð/ segment fails to appear, while the vowel continues to show a lack of contrast with /æ/.

It is noted that the researcher tends not to make her difficulties in comprehension explicit to Phoebe through the use of clarification requests. When this does happen, however (as in Ph3), Phoebe makes repeated phonetic and prosodic modifications to her original utterance. Such alterations would suggest a degree of awareness of her interlocutor’s conversational difficulty as well as an awareness of the nature of her responsibility to increase phonemic clarity in response to such expressed difficulty. However, while her prosodic alterations are useful to her co-participant, for example, increasing volume and raising the pitch of stressed syllables, the nature of her phonetic alterations is less so, and confusion continues to ensue.

A similar yet interactionally more successful sequence occurs in Ph6 below.

Ph6

1 S (.1) what’s your ‘favourite ‘thing in the’ wor:ld
2 Ph (12.9){svvmn}
3 S (0.9) spinning
4 Ph (0.6){swvmn}
5 S (1.3) ‘what’s ,that
6 (4.9) ‘what is ,it
7 Ph (2.5){sfvmn}
8 S (,) ‘swimming
9 (1.3) are you ‘good at’ swimming
10 Ph {mjep}

Phoebe concentrates her modification efforts correctly this time; that is, on the first two segments of “swimming”, initially produced inaccurately by her. Phoebe’s second attempt is an accurate production despite the researcher’s continuing difficulty in identifying the target. Interestingly however, Phoebe continues to modify the first two segments in response to the researcher’s repeated repair request.

The speed and blurring of word boundaries is a further cause of conversational difficulty. Had Phoebe made the word boundaries evident in Ph3, comprehension would have been
significantly aided. This articulatory characteristic also occurs in Ph2 at line 3 and below at line 6 of Ph7, line 2 of Ph8 and line 3 of Ph9:

**Ph7**

1. S (6.5) who 'lives in this house
2. can you 'tell me who 'lives in this house
3. (8.5) Phoebe
4. (2.0) 'can you 'tell me who 'lives in this house with you'
5. (5.6) 'quite a 'lot of people aren't there
6. Ph (0.7) {ea:pıpliantə}

**Ph8**

(3.6) 'what 'else do you 'like doing sweetheart'

Ph {gauntɔdət}

**Ph9**

S (0.6) what d'you do

(1.8) can you 'do ('.) the 'front' crawl

Ph ('.) {fịan?kɔ:}

In Ph7 and Ph9 the speed and blurring of word boundaries within the relevant contributions may be attributed to their echolalic nature. In Ph8 and Ph2 as well as throughout Ph3, the reasons for this rhythmic distortion seem less clear. It is noted however, that “liquorice allsorts” occurs frequently throughout the transcriptions (see, for example, Ph10 below) which suggests that, here at least, the speed and concomitant loss of a perceptible word boundary may be due to over-familiarity of usage. The other mispronunciations have a less clear source however. Ph2, Ph3 and Ph6 suggest phonological difficulties since consonant inversion, harmonisation and inaccurate cluster production are reminiscent of developmental production difficulties. However, loss of contrast between phonemes, as occurs with the vowel segments in Ph3, may be suggestive of systemic confusion and hence of a difficulty that is more linguistic in nature. In particular, Phoebe’s continuing adjustment away from a correct pronunciation in Ph6 is not indicative of a firmly established system.

### 5.3.2. Consistent phonetic and prosodic production

Certain lexical items occur throughout the transcriptions with remarkably consistent phonetic production. It has already been noted above that “liquorice allsorts” is an oft used lexeme for Phoebe. Examples of its phonetic rendering on four different occasions are shown below.
Ph10
a. Ph (1.2) \{\textit{\textsc{likas} \textsc{soljots}}\} =

b. Ph (2.9) \{\textit{\textsc{likas} \textsc{soljots}}\}

c. Ph d\'you know what\`s sweets I\`m buying to\'night (.) some \{\textit{\textsc{likas} \textsc{soljots}}\} (.) all right

d. Ph [have a coke (.) an] \{\textit{\textsc{likas} \textsc{soljots}}\}

"yes" also occurs frequently with the same segmental structure (this item is discussed at length below):

Ph11
Ph \{mjep\}

"\textit{all right}" also tends to occur with the same intonation contour on all occasions of its use. Its sentence function on these occasions is as a tag. On one of the two occasions below (Ph12c, line 3) where "\textit{all right}" occurs with a different contour, both the syntactic function of "\textit{all right}" and the context of Phoebe\'s surrounding talk are also somewhat different. Indeed, here, Phoebe seems to have taken on the voice of one of her carers in a burst of self-regulatory delayed echolalia. Ph12g shows the only other occasion throughout the transcripts of Phoebe\'s use of "\textit{all right}". Here the phrase functions not as a tag, but as a response to a wh-question. It seems, therefore, that the consistent prosodic production of "\textit{all right}" is linked not to the lexeme but to its syntactic function. A further possibility is that prosodic consistency may be due to clause final position rather than syntactic function. In any case, "\textit{all right}" seems to have a formulaic aspect within Phoebe\'s repertoire of use.

Ph 12a
Ph (3.2) I \`might buy a big \{\textit{\textsc{paxt}} \textsc{a} \} fudge to\'day (.) \`all right"

Ph12b
Ph I need to buy a \{\textit{\textsc{paxt}} \textsc{a} \textsc{tfDxlit} \} € clairs to\'day =
(.) just being a baby \\textit{cow (.)} \`all right

\textit{fast}

Ph12c
Ph | I need to be \textit{have my|\textit{self if I want}

to \textit{go (1.1) all\`right (.) you be\textit{have yourself i you want to go (.) dunno if we\textit{re}

going \textit{\textit{yet (3.3)(drinking tea\textit{)) I got my (( 3sylls)) all right =

Ph12d
Ph (4.4) just having that \textit{\textsc{la}:st bit (.) \`all right from the kitchen

Ph12e
Ph (2.0) nah (.) m (.) m (.) m you \textit{\textsc{m}usn \textit{have another one\`jus yet (.) because it\textit{s \`not

time f\textit{a}another one\`all right


d'you know what 'sweets I'm 'buying to night () some {lukə : ʃəts} () all right

S (2.2)what do they, taste of
Ph all right

In a similar way, Phoebe's use of the lexeme "yes" can be considered formulaic when its realisation is taken into account. There are two fundamental realisations of this item: one which has a closed syllable structure, "mjep°", and one which has an open syllable form, "yeah". The actual realisations are shown at Ph13 and Ph14 below.

Closed syllable forms
Ph13a
Ph (1.2){mjep°}
Ph13b
Ph (1.6){jep°}
Ph13c
Ph (1.0) °{mjep°}°

Open syllable forms
Ph14a
Ph yeah
Ph14b
Ph {mje}
Ph14c
Ph °{mje}°
Ph14d
Ph (0.7) m

Thus there are seven different possible realisations of "yes". With the exception of "yeah", all the tokens of the item only ever occur as the single component within a turn. "yeah", discussed further below, sometimes occurs as part of a longer utterance which tends to have some dependence on the immediately prior turn.

The breakdown of occurrence of the tokens in Transcription One (23.8.95) is shown in the table PhT: ii below.
PhT: ii - Realisations of “yes” in Phoebe’s talk

<table>
<thead>
<tr>
<th>Realisation of “yes”</th>
<th>Percentage of total number of “yes” tokens (n =53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>mjep⁰</td>
<td>62.2%</td>
</tr>
<tr>
<td>jep⁰</td>
<td>9.4%</td>
</tr>
<tr>
<td>ᵐmjep⁰</td>
<td>3.8%</td>
</tr>
<tr>
<td>yeah as single turn component</td>
<td>7.5%</td>
</tr>
<tr>
<td>yeah as part of longer utterance</td>
<td>9.4%</td>
</tr>
<tr>
<td>mjₑ</td>
<td>3.7%</td>
</tr>
<tr>
<td>ᵐ{mjₑ}</td>
<td>3.7%</td>
</tr>
<tr>
<td>m</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

When these numbers are collapsed into the two broad category types mentioned above, they appear as below:

PhT: iii - Realisations of “yes” as closed or open syllables in Phoebe’s talk

<table>
<thead>
<tr>
<th>Realisation of “yes”</th>
<th>Percentage of total number of “yes” tokens (n =53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed syllable form</td>
<td>75.5%</td>
</tr>
<tr>
<td>Open syllable form</td>
<td>24.5%</td>
</tr>
</tbody>
</table>

By far the most frequently occurring realisation of “yes” is, then, as [mjep⁰], while the closed syllable category accounts for over three quarters of all tokens. Sequential environment to the token categories shows a slight tendency for prior-production pausing to be longer for the open syllable forms: pauses in excess of 1.6 seconds never occur immediately prior to production of a closed syllable “yes” form, whereas pauses in excess of 2 seconds may occur prior to open syllable forms. Both form-types occur as latches and overlaps to roughly the same degree (0.15% of closed forms are latches or overlaps, as are 0.175% of open forms). There is, then, a suggestion that the closed syllable form and in particular the [mjep⁰] realisation, is formulaic in its usage. Not only does it occur far more frequently than any other realisation and never occurs as part of an utterance, but it also tends to be produced relatively quickly, post eliciting-interrogative. Functionally, with only three exceptions (and, of course, with the exception of the “yeah” forms which form part of a longer utterance), all the tokens are minimal responses, often produced after a prolonged interrogative series by the researcher. There is, therefore, little likelihood that particular realisations have any functional basis.

The “yeah” tokens which are part of longer utterances are shown below at Ph15.
With the exception of Ph15b, the "yeah" form occurs as the first component of the turn. Ph15a and Ph15c both involve repetition of the auxiliary but correct re-casting of the pronoun to make the utterance acceptable. Ph15b and Ph15d involve only slight modification of the model other than the addition of "yeah": this is tonal in both cases and is more extensive and hence more suggestive of communicative intent in Ph15b than in Ph15d. Interestingly, three out of the four exemplars of this type of "yes" token occur during a sequence on one of Phoebe's favourite topics. The single case where the topic was not one of Phoebe's obsessions, Ph15a, is uttered with low volume and at a fast rate. These features are associated with non-interactive sequences in Phoebe's talk and also occur in the transcripts of other study participants (cf. Tom, Chapter 8). Conversely, the sequential environment of favourite or obsessive topic is shown to elicit comparitively more productive forms and structures in other study participants below (cf. Tom and Penelope). Ph15b, Ph15c and Ph15d, then, represent the most productive turns containing a "yes" token: they function beyond the level of minimal response and involve greater use of linguistic resources than any other token types.

Hence, formulaic productions can be seen to occur in Phoebe's talk. While there can be no association with function made in connection with formulaised pronunciations, the less formulaic "yes" variant, "yeah" as part of a longer utterance, can be seen to have an association with a tendency towards greater productivity at discourse and clausal levels.

5.3.3. Prosody and echolalia
Phoebe makes a great deal of use of echolalia. As with "all right" and to a certain degree with "liquorice allsorts", immediate echolalic utterances often occur with a predictable
intonation contour. In Ph16 below, the contour is identical to that of the model utterance:

**Ph16**

S
(1.7) d’y- are you allowed to `buy ‘sweets

Ph
are- are y’allowed to `buy ‘sweets

On occasion, Phoebe bases an utterance on the researcher’s immediately prior turn but modifies it by the addition of words. Local and Wootton refer to this type of echoing as “mitigated” (1995:156), following Fay (1967) and Paccia & Curcio (1982), while Schuler and Prizant talk about “structural changes” to the model utterance (1985: 167). An example of Phoebe’s mitigated echoing is shown in Ph17:

**Ph17**

S
`do yer(1.0)

and then d’you ‘go and ‘get some’ more

(0.9) hhhhhhhhh.h.h.h.h

Ph
(2.1) go and get some ´more´ yeah

Here it is noted that not only does the echo represent a reformulation of the model in the addition of a lexeme, but the intonational structure is also modified. Note that insertion of “yeah” is outside both the tone unit and the syntactic unit of the model. Ph5 (reproduced again below) shows two such modifications of a model utterance; in the first instance, lexical, intonational and prosodic, and in the second, intonational and prosodic:

**Ph 5**

S
(1.4) have you ‘got some ,money to ‘get some

Ph
yeah I have

(4.6) *got some ‘money to ‘buy some*

S
*good

Ph
(0.6) *good*

In both echolalic utterances above, Phoebe deviates from the intonational contour of the model utterance. Both utterances also occur with reduced amplitude.

A further type of echolalia is shown in Ph18.

**Ph18**

S
(3.7) d’you ,like ‘cups of ‘tea

Ph
yeah

(.) ‘like ‘cups of ‘tea

Again, Phoebe’s intonation is not an entirely faithful reproduction of the model on which it is based. Some truncation of the model has occurred here which makes the echolalic utterance more pragmatically acceptable. However, it is noted that truncation of (not necessarily echolalic) utterances occurs in the conversation of other autistic language users
in the study. The intentionality of the pragmatically acceptable reworking is then called into question. It should not, then, be assumed that the omission of the auxiliary and subject reflects a conversationally competent use of an other-model.

It will be further noted, in this as in the majority of the utterances in this section, that Phoebe’s intonational reformulation of model utterances may in some sense be seen to be a ‘diluted’ version of the original. That is, Phoebe’s intonation contours may be reflective of the autistic tendency of intonational flattening (as described in Baltaxe & Simmons, 1985; Fay, 1969; Rumsey, Andresen, & Rapoport, 1986; Tager-Flusberg, 1981) rather than a conscious reformulation of the model. Despite the association of intonational reformulation with functionally more interactive echoing (Prizant & Duchan, 1981; Prizant & Rydell, 1984; Schuler & Prizant, 1985), one should beware here of ascribing an intentional element to this type of reformulation. Throughout the transcripts of Phoebe’s conversation, utterances occur with flattened intonation, and often a complete absence of tone movement altogether. Ph19 below is one example of this type of utterance, but they occur with regularity throughout the transcripts.

**Ph19**

Ph easter eggs

Ph20 below, meanwhile, shows Phoebe making clear use of the preceding turn as a model in a functionally highly interactive way; that is, there is appropriate syntactic reworking, but with intonational restructuring which is not concomitant with normal conversational expectancies:

**Ph20**

S = are 'they your 'best’ sweets
Ph (.) they’re my 'best ,sweets

It would appear then, that while Phoebe’s echolalic utterances may show evidence of comprehension and communicative intent in their non-prosodic reformulations, her prosodic competence is questionable. Whether this is indicative of the operation of a reduced level of comprehension and/or communicative competence or merely a production issue is difficult to decide. That Phoebe has disordered use of intonation is clear however.

Phoebe’s use of other-turns as models need not be immediate. We have mentioned the possibility of delayed echoes with a self-regulatory function occurring within Phoebe’s conversation. It is notoriously difficult to be conclusive about autistic use of delayed echolalia since the model may have occurred at any time prior to the suspect utterance and is highly unlikely to have been captured on tape (Prizant & Rydell, 1984). Below, however, we see Phoebe apparently making delayed use of the researcher’s turn as a model, again with appropriate syntactic modification, and again, with intonational restructuring of a flattened type similar to that discussed above.
Ph 21
S (1.5) did you 'walk by the' sea
seven lines intervene
Ph (2.0) walked by the sea=

A similar phenomenon occurs within the same transcript:
Ph22a
S 'which' one
(1.6) 'what ,colour was it
(4.3) ↑ 'what ,colour was it ,Phoebe ↑
(4.7) Phoebe ( .)
'what' colour was it
Ph it was a ,red colour

and 50 lines later:
Ph22b
S he 'looks like a ,boy
(1.6) what 'colour' hair has he 'got
Ph (2.3) red colour

Importantly, Phoebe here does not use the researcher's turn as a model but her own turn. This is the only occurrence within the transcripts of Phoebe using her own rather than an other-turn as a model for repetition. Again, there is both syntactic and intonational reformulation. The syntactic reworking is however not completely acceptable; the utterance in Ph22b is distinctly telegraphic in its lack of an indefinite article, while once again, the prosodic reformulation may be best described as intonational flattening. This phenomenon may be related to that of stress equalisation as noted in acquired apraxia of speech and foreign accent syndrome (Kent & Rosenbek, 1983).

In summary then, it has been seen that Phoebe's intonation is different to that of normals and to a large extent conforms with the conventional expectancies that autistic language users may flatten intonation contours within their speech. This flattening occurs even in echolalic utterances and may even include the omission of stress (as in Ph9 for example). Often Phoebe's echolalia shows evidence of structural reformulation and hence, since this is often appropriate to the local context, seems to indicate competence at pragmatic and syntactic levels. Phoebe's use of intonation is not so clearly competent however. While we have seen that she is able to respond to expressed interlocutor difficulty in comprehension by making segmental and prosodic alterations to an utterance, it is not always the case that she is successful in these attempts. Prosodically speaking, while the more gross features of volume and main stress may be altered, the more subtle and complex alterations which need to be made to indicate, for example, word boundaries, are often not attempted. In company
with this, we find that with regularly used items, for example "all right" and the "yes" realisations, there is a strong tendency for the same intonation contour to be used.

The picture that is forming thus far, then, indicates a fairly passive interlocutor who rarely initiates conversation. Speech is sometimes inaccurately produced and suggestive of underlying systemic difficulty. Reformulated echoic forms are pervasive. Consistent phonetic and prosodic productions occur with some lexical items and there seems to be a disordered use of prosody throughout. The next section takes a further look at echolalia and echolalic-type utterances in Phoebe’s conversation.

5.4. Echolalia and Repetition

That Phoebe makes a great deal of use of non-productive language will by now be evident. In Transcription One (23.8.95) Phoebe makes 78 utterances. The breakdown of their discourse functions can be seen in PhT: iv below.

<table>
<thead>
<tr>
<th>Turn Type (n=78)</th>
<th>Initiations</th>
<th>Topic change/continuer</th>
<th>Prior turn dependent</th>
<th>Echoes</th>
<th>“yes” tokens</th>
<th>Minimal responses</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3 (3.8%)</td>
<td>7 (8.9%)</td>
<td>26</td>
<td>6 (7.6%)</td>
<td>33 (42.3%)</td>
<td></td>
</tr>
</tbody>
</table>

The utterance functions are defined as below.

**Initiations** are utterances that begin a talk sequence by introducing a topic which is taken up by the interlocutor in the next turn. The only initiation that is made by Phoebe is the opening turn of the transcript.

**Topic continuers** progress the topic by moving on from current topic in a clearly relevant way, while **topic change** alters the current topic by moving on in a non-relevant way.

**Prior-turn dependent** utterances have at least two lexical items or one complete phrase identical to the immediately prior other-turn. At least one turn component must be new (this may be a change in person for a pronoun), and there is a clear sequential relation to the prior turn.

**Echoes** are defined here as turns which are exact repetitions of whole or part of an immediate prior other-turn, and which contain no new items. ‘Mitigated echoes’ belong in the category of prior-turn dependent utterances. The sequential relation to the prior turn is not clear.
“yes” tokens are utterances whose only component is a “yes” token.

**Minimal responses** are single word utterances, where the information given represents the minimum possible provision of information requested.

**Responses** are utterances where a response is made which is longer than a single word.

The breakdown of discourse functions is at first glance surprising, given the non-productive nature of Phoebe’s talk discussed thus far. In particular, there are more utterances that fall into the category of response than into any of the more repetitive categories. However, when the length of turns is calculated in morphemes (using Brown’s 1973 method for calculating mean length of utterance), it becomes clear that Phoebe’s responses have the shortest length of any of the functions (disregarding the single component functions of course). Responses average a morpheme length of 3.2 (107 morphemes in 33 turns); prior-turn dependent and echoes, calculated together as a collapsed category, have an average length of 3.8 morphemes (38 morphemes in 10 turns); initiations, topic changers and continuers (also collapsed into a single category) have an average length of 5.66 morphemes (17 morphemes in 3 turns). Responses are, then, typically brief. However, since the intention here is to investigate only the discourse functions of Phoebe’s talk, the categories used above cannot be sensitive to the influence of self-models, non-immediate prior turns, and formulas, hence while a ‘response’ function seems to be productive compared with categories such as ‘echo’, the extent of such productivity is in fact not necessarily dependent on function. A further issue arises as to how far such brief utterances can be considered to be productive.

A further implication of the lengths of the function categories, is that Phoebe is at her most productive at critical discourse points (initiations, topic continuers and changers). However, these last functions are achieved by utterances which take the theme of sweets as their topic. Hence, and as explored further below in this chapter (in section 5.5: *Favoured structures and themes*), topic initiators, changers and continuers are far from productive. Indeed, the low number of such turns would seem to indicate their sequential location is unlikely to be primarily linked to discourse function. Topic and form may well be more salient categories for Phoebe herself.

Since the categories of prior-turn dependence and echo used above are not sensitive enough to the variety of echo-forms that occur in the transcripts, Prizant and Duchan’s functional categories of echolalia may be usefully applied to the data (Prizant & Duchan, 1981; Prizant & Rydell, 1984). From a total of 134 utterances, 11 can be categorised as immediately echoic, that is:
“The child’s[sic] echoic response must have occurred subsequent to the interlocuter’s utterance, and it must have consisted of segmental and/or suprasegmental similarities to the utterance of the previous speaker, involving either rigid echoing of the model utterance (pure echolalia) or selective repetition of elements occurring within two utterances of the original utterance.” (Prizant & Duchan, 1981): 243.

It will be noted here that the focus of Prizant and Duchan’s study is the language of autistic children. There is, then, a likelihood that Phoebe’s echoic utterances may not fit neatly into the given categories, and indeed, we find this to be the case. Utterances such as those shown in Ph23 below seem to be candidates for inclusion in either the functional category of rehearsal or that of turn-taking. The functional/non-functional category of non-focussed echoing may also present a possibility for these utterances.

Ph23

a. S oo::h_righet=
   Ph =o::h rightº

b. S (5.6) ‘quite a lot of people aren’t there
   Ph (0.7) {æ'pipløøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøøø
Ph25a
S and then d’you ‘go and ‘get some` more
(0.9)hhhhhhhh.h.h.h.h.h
Ph (2.1) go and get some´ more´ yeah

Ph25b
S (3.7) d’you ,like ‘cups of ‘tea
Ph yeah
(.) ‘like ‘cups of ‘tea

Ph25c
S (.) d’you have to ‘clean your,bedroom
Ph (.) {mje} clean my bedroom

Here the apparent function of the echoic utterances is again that of “yes”-answering, but Phoebe makes this more pragmatically acceptable by the addition of “yeah” inserted at one or other end of the echolalic string. This type of utterance therefore seems to both support Prizant and Duchan’s functional category of “yes”-answering as well as suggesting that a later developing structural realisation may exist for this function. An even clearer exemplification of this type of utterance is shown in Ph25d.

Ph25d
S right (.) you* ready then =
Ph =yeah* ready then yeah =

Related to the category of “yes”-answer but not mentioned by Prizant and Duchan are the following utterances:

Ph26a
S (0.9) d’you ‘eat them ‘all at’ once or do you` save some
Ph (0.6) eat em all a` once

Ph26b
S (1.6) do you ‘make ‘mugs of ‘tea for ,everyone or just you
Ph (1.2){ta} ‘everyone

These utterances fall into the category of echolalia simply because they meet the structural requirements of echolalia given above (Prizant & Duchan, 1981). However, within a non-autistic conversation, these utterances could easily be seen as cohering the discourse and, further still, as indicators of a high degree of interpersonal involvement between conversational participants (Tannen, 1989). Within the framework of autistic discourse however, this type of echolalia is perhaps best regarded as having the function of expressing a choice when presented with a range of options in a preceding utterance. Automaticity is not an explanation of the repetition here, since the part of the model utterance which is
echoed is the first rather than the last part.

From this somewhat limited sample of Phoebe’s immediate echolalia it would appear that Prizant and Duchan’s functional categories do have some relevance to adult autistic echolalia. Since no studies have been noted which explore the echolalic feature within adult autistic language, it may only be hypothesised here that aspects of immediate echoing in Phoebe’s language suggest continuing development of echolalia. The function of “yes-” answering may be achieved by simple echolalia at an early stage, whilst later the same function is achieved by the addition of “yes” to an echolalic string, the utterance thereby becoming more pragmatically acceptable. The development of pragmatic ability asynchronously with non-social development has been discussed in the literature (by Tager-Flusberg, 1989; Wetherby & Prutting, 1984) and would seem to provide some foundation to such a hypothesis as is suggested here. That echolalia may develop rather than merely disappear is however not suggested in the literature.

5.4.1. Delayed Echolalia

As mentioned above, the difficulties involved in identifying delayed echolalia present researchers with obvious problems. Studies on delayed echolalia are therefore few, although attempts have been made to categorise delayed echoes in a similar way to immediate echoes (Prizant & Rydell, 1984) (see also Chapter 2: Repetitive and echolalic language in autism). Phoebe’s data provide us with some apparent instances of delayed echoing, one of which appears at Ph22 above, although, since here Phoebe uses her own turn as a model, this utterance does not conform to the original definition of echolalia (Kanner, 1943; Kanner, 1946) as the “rote and literal repetition of the speech of others” (Schuler & Prizant, 1985: 164). However, utterances such as those at Ph27 below have the appearance of prototypical delayed echoes:

Ph27a

Ph (0.9)’sorry
S more in the kitchen if you want it (. )
and you got to drink’ that one fi rst

Ph27b

S I don’t know if we’re going to the sweet pla[ce sis afternoon]
Ph [ I need to be have my]self if I want
to go (1.1) all right (. ) you be have yourself i you want to go (.) dunno if we’re
go ing ‘yet (3.3)(( drinking tea)) I got my (( 3 sylls))’ all right =

Ph27c

Ph (2.0) nah (. ) m (. ) m (. ) m you ’mush have another one’ jus yet (.) because it’s ‘not
’time f’a nother one ’ all right
These utterances are suggested as instances of delayed echolalia since they all make inappropriate use of the second person pronoun given the conversational context. Interestingly, all three seem to have the same non-interactive function of self-direction (Prizant & Rydell, 1984: 186): that is, Phoebe seems to be regulating her own behaviour with these utterances. Ricks and Wing (1975) suggest that such utterances are produced since those with autism lack an inner language with which to covertly regulate their behaviour. Phoebe’s selfDirective delayed echoes all serve to regulate Phoebe’s compulsive interests in sweets and drink.

The possibility does of course exist that other instances of delayed echolalia are present in Phoebe’s transcripts. However, since much of Phoebe’s talk is either repetitive or brief it is suggested that there are likely to be only very few of these.

5.5. Favoured Structures and Themes

As noted above, Phoebe rarely initiates conversation or topics within conversation. Indeed, Phoebe’s lack of willingness to talk is so marked as to make maintenance of topic characteristically the occupation of her interlocutor. Exceptions to this taciturnity occur as noted above with relation to the topic of sweets or drink. The instances where Phoebe makes topic initiations of this type are shown below in Ph28 (Ph28a is the topic initiator mentioned in PhT: iv above):

Ph28a
Ph d’you know what’ sweets I buy n e::rr { lɪkriː ˈsɔːʃts}

Ph28b
Ph I need to ’buy a { pæxɪ ə tʃrɪlɔɪts} e’clairs to’day =

Ph28c
Ph = I need to buy some ’sweets sis ,afternoon
(.)
  d’you wanna’buy en(,) some ,fudg::e

Ph28d
Ph d’you know what’ sweets I’m buying to’night (.) some { lɪkriː ˈsɔːʃts} (.)’all right

Similar structures sometimes occur as topic changes in the sequential environment of questions:

Ph28e
S (16.7) what’s ‘good about’ swimming Phoebe
Ph having sweets later
Ph28f
S  'what do we have to do' Phoebe
Ph (2.5) buy 'sweets s'afternoon

Ph28g
S  (0.9) and what's the 'lady called who 'lives here
Ph  {go} buy some sweets {sts}s'afternoon

Ph28h
S  = t 'you
Ph (3.2) I might buy a big {'paxt a} fudge to'day (. ) ↑ all right↑
( .) if I get 'fudge

Ph28i
S  (0.9) in what 'way are they a' like
Ph (2.5) I think I'll buy { 'swAs} some 'sweets {sts}s'afternoon (. ) all right

These abrupt topic changes in response to questions occur subsequent to at least two repetitions of the same question by the researcher on all but one occasion above (Ph28g). It will be noted that Phoebe favours particular structures and lexis to introduce the topic of sweets. Structures of the above examples are shown in PhT: v, PhT: vi and PhT: vii below.

PhT: v - Structure of abrupt topic changes in Ph24b and Ph24c

<table>
<thead>
<tr>
<th>Subject</th>
<th>VP (modal+buy)</th>
<th>Object</th>
<th>Adverbial (time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>need to buy</td>
<td>a packet of chocolate eclairs</td>
<td>today</td>
</tr>
<tr>
<td>I</td>
<td>need to buy</td>
<td>some sweets</td>
<td>this afternoon</td>
</tr>
</tbody>
</table>

PhT: vi - Structure of abrupt topic changes in Ph24a and Ph24d

<table>
<thead>
<tr>
<th>Aux</th>
<th>Subject</th>
<th>Main Verb</th>
<th>Obj (Rel Pron+sweets)</th>
<th>Subject</th>
<th>Main Verb</th>
<th>Adv (time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>do</td>
<td>you</td>
<td>know</td>
<td>what sweets</td>
<td>I</td>
<td>buy</td>
<td></td>
</tr>
<tr>
<td>do</td>
<td>you</td>
<td>know</td>
<td>what sweets</td>
<td>I</td>
<td>m buying</td>
<td>tonight</td>
</tr>
</tbody>
</table>
The lexis used to accompany these structures is significantly restricted; for example, Phoebe does not talk about “getting” sweets, only “having” or “buying” them. The time adverbials which she uses are all related to the current day: “today, this afternoon, tonight”. Further, in all but one of the above utterances, if the reference to sweets is expressed as “some sweets”, then they will be obtained “this (or “sis”) afternoon”. We also see consistent phonetic production of “packet” and possibly “this” in “this afternoon”. It is important to emphasise here that these utterances are considered to be repetitive rather than echolalic and that the repetitiveness, whilst not precise, suggests the existence of a limited repertoire of syntactic structures in company with restricted lexis, from which utterances on the topic of sweets may be constructed. This is less surprising for lexis than it is for syntax since within processing models, syntax is not normally considered to remain in storage beyond a few seconds (Harley, 1995). Studies have shown however that under particular conditions syntactic structures may persist in production frameworks (Bock, 1986), and certainly we should note that, although the turns in question are by no means adjacent to one another, for the most part Phoebe’s syntactically similar utterances do occur within a local context to one another. The possibility cannot be dismissed therefore of some type of syntactic priming mechanism, perhaps operating here in a similar way to lexical priming mechanisms. Processing implications aside, this type of repetitiveness suggests that within Phoebe’s conversation, favourite topics seem to occur with restricted syntactic possibilities in company with limited lexis.

5.6. Syntax

5.6.1. Syntactic errors
Phoebe’s more productive language can show some aberrant syntactic features although these do not seem to be systematic. The extent of Phoebe’s syntactic competence is, however, likely to be disguised by her preference for short utterances. Given an average turn-length in non-repetitive structures of around 3 morphemes, the syntactic possibilities are extremely limited. The extracts below exemplify typical errors made by Phoebe.

Ph29

auxiliary omission
S  how many `ears d’you `have
Ph  I got two `ears
Ph30
preposition and determiner omission
Ph... got 'one(.)' two (.') free:: (.') an he's going 'toilet (.') he wants to 'go: (.') an' I 'use it
sometimes as `well

In Ph30 above the omission of the preposition “to” and determiner before “toilet” may be acceptable as a dialect form.

Ph31
progressive inflection omission
Ph... (1.2) he's 'bend down like a (.') gi`raffe

Ph32
Determiner omission
Ph... I love` fudge (.') ↑,I do↑ (.') fro[m `sweet .shop

Below (Ph33), Phoebe makes a syntactically non-acceptable response to the researcher’s question by missing out the verb phrase and its complement object (assuming a target similar to “put it in a kettle”). Communicatively speaking, it is, however, possible for a listener to reconstruct Phoebe’s meaning from the isolated adverbial phrase which she gives as her response, but whether her answer is acceptable semantically is not at issue here. When a question is phrased “what must you do to VP”, the response structure must conform to that of the question, that is “you must VP” with a potential and acceptable elision of everything but the VP, including the verb in its non-finite form with its requisite complements and (optional) adjuncts. For example, syntactically acceptable responses to “what must you do to ski?” could be anything from “learn how” or “be mad” to “wear big sticks on your feet and move quickly down icy slopes”. Phoebe’s response is then not syntactically acceptable here despite having a recoverable meaning.

Ph33
S... (2.0) o'kay
(1.2)what 'must you ,do to make `water` boil
Ph... (2.3) mm mm m (.') e:x (.') in a `kekkle

In Ph34 below the intonation contour of Phoebe’s response has a final fall on “cats” indicating that the clause is complete. Syntactically, though, this is not the case, although the target here is not clear. There is a possibility that Phoebe intended that the noun “cat” should be nominative despite the clear production of the genitive morpheme and the lack of an attempt at self-repair. A second possibility is that the article may be superfluous and the target involved a plural noun, despite the picture to which the utterance refers being of a single cat. Finally, it is possible that a degree of affrication on the final segment of “cat” could result in the audible realisation of “cats”.
Ph34
S(0.6) o´kay(.) now you look at this 'one(.) and tell me what imp'or
[tant part's missing]
Ph[mhm right]
(mumbles - inaudible))
there's a 'cats

5.6.2. 'Scrambling'
Phoebe's utterances in the conversational transcripts from the administration of the WISC-
R intelligence test are longer than in the purely conversational transcripts, and she is less
inclined to allow lengthy pauses to occur within her turns. Some of these longer utterances
have a 'scrambled' appearance, meaning relatively intact phrases are combined in confusing
ways. For example:

Ph35
S(2.9)n'o
(.) ‡ know how many 'days(.) 'make a 'week† =
Ph = that's saying 'here(.) ts-(.) i s(.) a
'week(.) innit s* well

Ph36
S (0.6) what's 'missing, 'there
(1.2) in 'that' picture
(.) 'look at the 'picture, Phoebe
Ph (1.9) arr (.ji -it's (.), funny those (.), they're, standing 'up(.) n see if they 're
'standing up (.). cn .hhh (.). can`' wee wee ((4 sylls (.). 2sylls))(.). all right

Ph37
S o.kay (2.7) 'hard_questions, aren't they (.).right (7.2) 'put that 'back a ,minute
(7.4)((3 sylls)) (4.1)
Ph 'hope you're 'going some 'coca cola to' night =

In the three above extracts, Phoebe's targets are unclear. These types of utterance are
reminiscent of the kind of language which occurs within thought-disordered talk (Barr,
Bilder, Goldberg, Kaplan, & Mukherjee, 1989; Bender & Fareta, 1972; Cantor, Evans,
Pearce, & Bezzot-Pearce, 1982). A scrambled string which includes a snatch of self-
regulatory delayed echolalia is given separately below, but if the extracts above include
phrases with a similar source then this was not evident at the time, since, with the possible
exception of Ph37, none of the individual phrases occur as echolalia elsewhere in the
transcripts.

Ph 38
S I 'don't know if we're, 'going to the 'sweet 'pla[ce sis, 'afternoon]
Ph [ I need to be have my self if I want to go (1.1) all right (_) you be have yourself i you want to go (_) dunno if we're going yet (3.3)I got my (( 3 sylls)) all right =

Since, with the exception of utterances which are echolalic or repetitive in some way (for example, Ph37 above), Phoebe's scrambled utterances represent her longest utterances within the transcripts, they may be indicative of an impairment in clause and discourse cohesion. It is tentatively suggested here that the scrambled appearance may result from an attempt to convey a sequence of related ideas in a manner beyond Phoebe's linguistic competence. Indeed, it is noted that, with the repetitive exceptions mentioned above, Phoebe consistently makes use of very simple sentence structures involving single clauses only.

The occurrence of scrambling is then, suggestive of impaired competence at the clause and discourse levels of Phoebe's language. Syntactic errors may also fit into this framework of restricted competence at higher linguistic levels. As mentioned above, Phoebe's errors are not systematic in that they are not associated with attempts at particular problematic constructions. For example, in contrast to Ph31 and Ph32 above, the progressive morpheme and determiner are used correctly by Phoebe in Ph39 below:

Ph39
Ph (. ) just being a 'baby cow (. ) all right fast

Given that Phoebe's longer utterances are all either of the scrambled type identified above or are repetitive, and that while the first transcript has no examples of the scrambling feature, the WISC-R transcript includes several, and further, that the first transcript has noticeably more pauses of greater length than the WISC-R transcript, there may be some kind of trade-off operating in Phoebe's talk. When Phoebe's talk features fewer extended pauses, there is a greater tendency for errors and scrambling to occur. The existence of fewer pauses suggests that Phoebe is taking on more of the conversational work than previously, which in turn suggests an increase in cognitive load. This, coupled with the effort required to respond to the questions of the WISC-R, may result in an increased number of errors as well as the feature of scrambling. In short, it is suggested that Phoebe's competence at both clause and discourse level is fragile and, under pressure, this weakness may manifest in the occurrence of both syntactic errors and scrambled utterances. While scrambling represents an attempt to combine linguistic units beyond Phoebe's competence, errors in syntax result not from attempts at problematic constructions at a local level, but as a result of the increased cognitive effort required by the type of discourse in which Phoebe finds herself involved.

5.7. Summary
Phoebe is, then, a language user of considerably restricted competence. We have seen evidence of a high level of repetition within her talk, both in the occurrence of echolalia as well as that of repetitive structures occurring in company with restricted lexis. The formulaic
use of consistent phonetic productions of particular lexical items also occurs in Phoebe’s talk. Further to this preference for non-productive language, particular problems with complex constructions and discourse maintenance and cohesion have been identified. Conversationally competent activities such as topic changing and initiation are carried out infrequently and with the invariable assistance of repetitive structures. Typically, Phoebe exercises avoidance of anything but the most simple of structures, often avoiding speaking altogether. Phoebe’s language manifests as very different to that of Tina despite comparable WISC-R scores.
6. Gary

6.1. General Background
Gary is a young man with autism resident at Forest House in South Yorkshire. Conversations were audio and video recorded between Gary and the researcher between May and September, 1995. The WISC-R Intelligence Test was also carried out but was not video recorded, since it was felt that this might be distracting for Gary and hence a fair assessment of his cognitive ability would not be obtained. Gary was 24 at the time of the recordings.

6.1.2. Social and behavioural
Gary is a sociable young man who enjoys the company of others. Thus, within an autistic condition, he falls into Wing and Gould’s third category of social subtypes within autism of active but odd (1979). It should be noted that whilst deviant social development and behaviour as a defining feature of autism (APA, 1994) have been correlated to mental age, the degree of social impairment typically measured in autistic individuals is not attributable to mental age alone (Volkmar & Klin, 1993: 45). These points are of special relevance to Gary’s case since his measured intelligence quotient is below the baseline for obtaining a scaled intelligence quotient score (see below), and yet the ‘active but odd’ definition is more often associated with the highest mental age of the three subtypes.

Gary has a generally friendly and outgoing appearance and exhibits a willingness to cooperate with others. He is interested, and can be pro-active in social interaction. However, Gary’s confusion as to the ‘rules’ of social life is evidenced within the transcripts as it is throughout conversation with him:

G1
S (0.6) ‘my doctor is a, woman (. ) a la:dy
G ( ) ‘she my’ friend

Gary’s carers report that he has consistent problems in ordering his social world into friends, acquaintances, carers and those who have a more long-term relationship with him, and his behaviour as well as his conversation exemplifies this confusion. Despite this, Gary seems fascinated by social relationships and regularly reverts to it as a topic of talk.

In a perhaps related manner, Gary also seems interested in social events, particularly those which have some element of ceremony or ritualised activity. For example, in Transcription One (25.5.95) he brings up the subject of Remembrance Services and seems particularly fixated by the observation of a minute’s silence. In a similar way and with relation to one of Gary’s other interests, Gary regularly mentions the activities of preparing for the arrival of and introducing a comedian in Transcription Two (23.8.95). Gary also has what may be termed obsessive interests in people (although see comments in Chapter 5: Phoebe relating
to obsessions in autism). At the time of the recordings, he made frequent reference to Duncan Novell, a local comedian. Carers report that recently he had a similar interest in the wrestler Big Daddy.

Gary is a great mimic of others. He can imitate the voices of co-residents with a high degree of accuracy and can convincingly adopt a variety of regional accents. This ability is exercised at intervals throughout his conversation and is perhaps interesting when viewed alongside Gary’s more general tendency towards linguistic and conversational repetitiveness.

At times Gary’s behaviour has given his carers cause for concern. Whilst not violent, his approaches towards others have sometimes been inappropriate and have necessitated his separation from his peers. Gary apparently suffers a great deal of anxiety during such episodes, which at least in part appears to be caused by an awareness of his difference to non-autistic people and the concomitant limitations to his social experience.

6.2. WISC-R Analysis

A similar methodology to that described above (in Chapters 4: Tina and 5: Phoebe) was adopted for the administration of the WISC-R. The test was administered in a closed room in the day centre at Forest House during the early afternoon. The researcher and the research participant were the only people present throughout the administration of the test, although a carer employed by Forest House was present immediately before the session began. An audio-recording was made of the complete session. As with Phoebe, the test was not video recorded in order that the environment be as minimally distracting for Gary as possible. Gary was happy to take part in the test though he seemed to find the later parts of it somewhat taxing and at this stage became quite distractable. In common with both Phoebe and Tina, Gary failed to score sufficiently high to obtain scaled scores for either the performance or verbal subtests.

Interestingly, both Phoebe and Gary obtained similar raw scores on the test; Phoebe scoring 27 and Gary scoring 24 overall. However, their profiles were not particularly similar, as can be seen when the two sets of scores are compared. A breakdown of Gary’s raw test scores is given below
No score was achieved on the subtests of similarities, arithmetic, picture completion, picture arrangement, block design or coding. It can also be seen that Gary performed slightly better on the verbal than performance subscales, although, as was the case for Phoebe, any discussion of these scores should be conducted only with the greatest of caution since the scores obtained are raw rather than scaled. However, it is possible to sketch a 'cognitive outline' of Gary by listing the features associated with the subtests on which he scored whilst removing those features associated with the subtests on which he failed to score. The resulting set of cognitive abilities is given below:

holistic processing
verbal conceptualization
demonstration of practical information
evaluation and use of past experiences.

It must be remembered that these skills are relative to Gary’s general range of abilities and should not be compared with the abilities of non-autistic people in these areas.

Taking just intelligence quotient score into account, Gary fits into DeMyer et al’s category of “low autism” (Schopler & Mesibov, 1992: 31) which is defined as “having little communicative speech beyond infrequent communicative words” and “globally impaired” intellectual and perceptual-motor performances. This definition fits in with the common association of low functioning autism with the presence of few or even complete absence of verbal skills. Since Gary is clearly more verbally able than this description would suggest, we should perhaps view his WISC-R profile as suggestive of globally impaired intellectual and perceptual-motor performance together with better than expected verbal abilities.

6.3. Speech

6.3.1. Voice quality
Gary has peculiarly distinctive speech characteristics, some of which have been given a very cursory, generalized description above. In terms of voice quality, Gary makes fairly frequent use of whisper and breathy voice. Within the transcriptions, the notation ‘voice quality’ is
also used without further definition to indicate that the voice quality has been altered from that of surrounding utterances and is peculiar to that utterance. In these cases, an alteration of voice quality can be taken to mean an alteration of more than one of Gary’s speech features, for example, pitch, vocal range and vowel quality may all be changed within an utterance. These utterances, as well as the scope of their modification, will be looked at in more detail below.

6.3.2. Whisper and breathy voice

As mentioned above and dealt with at greater length below, Gary has favoured utterances which recur throughout his conversation. “tickly feet” or “tickle [X’s] feet” is perhaps the most frequent exemplar of this feature of Gary’s speech within the transcripts used here. The argument for considering this utterance to be formulaic is made below. Often it is produced in a whisper as shown below.

**G2**

S  (0.8) you 'tell me 'what 'silence 'means
G  (.) t-t- tickly feet’s  whisper
(1.1) silence ((3 sylls)) in the 'war

**G3**

1  S (.) ooh ’yes (1.1) you're gonna be really strong
2  G (3.1) FIT (.) ↑FIT↑  voice quality
3  S (.) yes =
4  G = tickly feet’s:  whisper
5  S (.) tickly, feet ((1.4) (hhhhhh) .hhhhhh
6  who 's ays 'tickly 'feets
7  (1.6) who 'says tickly 'feets
8  (2.2) who 'says 'that (.) 'Gary
9  G (.) what (.) tickly: fitssss: =  voice quality
10 S (.) yeah
11 G 'tickly: fitssss:  voice quality
12 (1.7) tickle m alkmz ↓ fri↑  voice quality
13 (.) tickle m alkmz ↓ fri↑  voice quality
14 (.) tickle ↓ feet↑ (.) 'tickle 'Malcolm's 'feet  voice quality
15 S ↑[you] 'too (.) tickle 'Malcolm's 'feet
The "tickly feets" phrase may also occur with peculiar voice quality as it does at G3 above. "tickly feets" at G3 line 9 occurs with a globally higher pitch than Gary normally uses, that is, the phrase occurs within pitch parameters higher than those typically in Gary’s range. Vowels are also closer than usual and the final consonant of the phrase [s] is extended. At G3 lines 11 to 14, the phrase occurs as a variation of the original as "tickle Malcolm’s feet". The pitch is however globally raised as with the earlier utterance and the vowels are again closer than usual with a further degree of centralisation and reduction on the first vowel of "Malcolm". This time an abrupt descent in pitch occurs on the final syllable "feets" which effectively takes the phrase into the more usual parameters of Gary’s range. Accompanying this is a reduction in volume on the final syllable. Lines 12 and 13 are pronounced with exact auditory similarity.

"tickly feets" never occurs unmarked within the transcripts. Even at line 9 of G3 where Gary’s use of the phrase is incorporated into a clarification request, the phrase is separated from the surrounding discourse by unusual voice quality. The origination of this phrase as a feature in Gary’s repertoire is unclear (Gary’s caregivers could provide no explanation for it). However, it certainly seems possible that this is an example of delayed echolalia and that the voice quality may also be echolalic, although the degree to which modification may have occurred can obviously not be reckoned. When the phrase is used with whisper however, the degree of markedness from surrounding discourse is even greater. While in G3 lines 11-14 above, the topic of talk is directly concerned with the "tickly feets/ tickle X’s feet" phrase, at G3 line 4 as well as G2, G4 and G5 the phrase is not linked by topic to the surrounding discourse at all. That the phrase is whispered on all of these occasions of use
would then seem to be indicative of its status as an utterance unconnected to the surrounding discourse. That is, whisper marks the phrase as an aside to the topic of talk. Further, the phrase at G3 line 4, G4 and G5 occurs at a topic boundary: at G3 and G4 this is marked by a long pause preceding the phrase during which the researcher may have chosen to speak, and in doing so would have continued the topic. At G5, the phrase occurs between question sequences where the researcher's contributions indicate that talk is secondary to other activities at this point. Finally, at G2, the phrase occurs as part of a response to a question that has clearly caused Gary difficulty in immediately preceding turns. It may be suggested then, that the "tickly feets" phrase occurring with whisper tends to be indicative of a problematic stage in the discourse: either at a point between topics where the new topic has not yet been initiated, or at a point where there is uncertainty about the next contribution, as in the questioning sequence.

Whisper also occurs with other phrases:

**G6**

S (3.11) errr (.) yeah (.). did it 'thunder here _yesterday

G (.) it, did, didn't it(.) ((makes thunder noise))

S ooh ,dear(1.6) what did you, think of, that

G *thunder* whisper

**G7**

G (3.8) ((2 syllables)) (2.1) I 'want to - I 'want to ,ma:rch

S (1.2)you 'want to ,what

G *ma::rch* whisper

**G8**

S what's appening (1.4)

† 'what†

G (1.0) °what°

S what's appening to night

G °come dian° whisper

**G9**

S (0.6) 'ow did you ,do it (.)'what did you- (.)'what did you 'do: (0.7) fi::rst

G (1.8)'spounge

S (2.9) n, then 'what did you 'do

G hhhhhhh °it's 'ot in this° pla::ce° whisper

**G10**

G (0.7) all the chairs 'move out the 'way for 'him
S  mhm
(.). who for
G  f'the co' median
S  aah: hr:ght
G  f'the come 'dian
(.). would th- would they al lower it (.). would they al lower it

G11
S  (0.7). no (.). we can- we an't (.). really got ti ime 'now
(0.8) cos we're doing this 'now, aren't we
G  (0.6)after

G12
S  (.). have you been on any 'walks
G  (3.4)n- no::
S  (0.9) ↑haven't, you↑
G  (2.4) hhhhh (5.9) co,median

G13
S  (.). how many (.). how many 'legs does a 'dog 'have
G  'two'
S  (0.7) o kay
G  (0.7) { 'suh:suh:::

G13 and G9 are comparable to the G2-G5 examples above, in that whisper marks the phrases as asides to the surrounding talk. The phrase in G9 occurs in the slot where a question response is expected while G13 occurs within a WISC-R questioning sequence. G6, G7 and G10 are all examples of repetitive utterances based on self-models from immediately prior turns. Perhaps most interestingly however, G8, G10, G11 and G12 all relate to the comedian topic. In this case, whisper can be seen as having a cohesive effect, since the utterances in question are not immediately sequential. As mentioned above, the comedian topic is one of Gary's current favourites, and as such, the utterances above are all used by him to maintain or introduce this topic in the face of evident unwillingness from his co-participant. These utterances may then be seen as non-contiguous contributions in the context of the surrounding talk.

Breathy voice is also used by Gary on occasions, though not as frequently as whisper:

G14
G  (1.4) I had do_training 'straight 'after and it's really 'hard to do training'
(1.0) .hhhh ((4 syllables)) 'miles an hour

breathy
(0.7) in 'what' way (.) are a 'candle and a, lamp a,like

(2.7) twenty 'four

(4.5) put the lights on (.) [please]'.

Once again, voice quality here seems to be indicative of topic change, since both of the above utterances are located at topic boundaries. However, with so few examples, conclusions about the structural significance of breathy voice can only be tentative.

6.3.3. Speech errors

Gary has a predilection for lengthening segments, particularly in utterance final position and in oft-used (formulaic) items. The latter also demonstrate vowel raising (for example, in G3). Further examples of final position and formulaic-item segment lengthening can be seen in G6, G12, and G13 above. In addition, Gary's pronunciation is not always accurate as G16 below illustrates.

**G16a**

G (3.6)((5 syllables)) {saɪənt_s}

**G16b**

G what's the {ta} re, corder gonna 'do

S it's just gonna 'sit 'there (1.5)

**G16c**

(2.0) hhh mm (.) can you 'name the, month (.) that 'comes after' march

G (1.5)'{tststəmbə}'

**G16d**

G (2.3) it's a, shi,rt (.) and a (.) `tardigan`

**G16e**

G (0.7) jus-(.) m-(.) 'answering, questions bout .hhhh (.) {baʊtθ} (1.4)

{,weldo, spot}

Gary's errors include segment omission (G16a, G16b), vowel neutralisation (G16b) and segment substitution (G16c, G16d and G16e). The substituted segments in G16c show harmonisation in that the targets /s/ and /pt/ have been realised identically. The substitution that occurs in G16d is reminiscent of the developmental process of fronting, or may be a case of harmonisation of the target /k/ to /t/ due to the syllable final alveolar, while that at G16e (/e/ for /æ/) suggests vowel neutralisation. Gary's speech errors show, then, the
operation of similar processes to those of other study participants (cf. Phoebe and Penelope).

6.3.4. Unusual voice quality

G3 above exemplified the use of unusual voice quality to mark off an utterance from surrounding discourse. A further example of distinctive voice quality occurs in G5 above. Here the utterance is best described as having a sing-song intonation and is heavily dependent on the prior other-utterance, both lexically and prosodically. The researcher’s turn also has a slightly ‘sing-song’ tone which is ‘amplified’ in Gary’s turn. Both G3 and G5, then, seem to incorporate a degree of echolalia (possibly delayed in G3) with special attention paid to prosody. There is certainly prosodic exaggeration in G5 but it is not possible to be conclusive with regard to G3, due to the uncertain status of the utterance. G17 below is a further example of unusual voice quality accompanying a repetitive utterance.

G17

| G (1.3) I know                |
| S (1.9) [who]               |
| G [John ] Major             |
| S (. ) na: :::             |
| G (. ) John Major =        |
| S = John Major             |
| G ( .) ↓ John Maj: or ]    |

Here the pitch is globally lowered beneath Gary’s usual range and there is vowel lengthening on the final two syllables. The final vowel is also more back and open than in the preceding three model utterances. The model for G17, unlike G3 and G5, is self rather than other. In G18 below, the model is, however, other.

G18

| S (. ) `that’s `beautiful   |
| G that's beautiful Sush `ie = |

The above utterance is echolalic according to the more strict definitions of the term (outlined above) although the addition of “Sushie” and the intonation contour would make it mitigated rather than pure, even if the voice quality were not distinctive. Once again, the vowels are made closer in Gary’s utterance and a rhythm is imparted by lengthening the first, fourth and final syllables.

Finally, G19 below is an example of two turns spoken by Gary ‘in character’. Here the pitch is again lowered and the syllables are blended into one another through the loss of peripheral consonants. The effect is indeed reminiscent of a nightclub compere speaking through a microphone:
Modification of voice quality can then be seen as indicative of utterances which are inconsistent with the surrounding talk. This inconsistency can take the form of a non-contiguous-to-topic contribution, an instance of repetitiveness, or a movement 'into character', as is shown immediately above. A further occasion where voice quality may be modified, as with whisper, is at a problematic stage in the discourse. Here the modified contribution is less itself an example of inconsistency, but rather reflective of perceived inconsistency in the talk. In this sense, Gary's modification of voice quality, whether it be through the use of whisper, breathy voice or unusual voice quality, can be seen to mark simultaneous or immediately prior instances of movement away from talk that is more routine.

6.3.5. Reduced Amplitude
The use of reduced amplitude may be associated with uncertainty and repetitiveness in Gary's talk. G20 - G24 below are all instances where Gary is required to respond to a question. G22 and G23 require factual answers to which Gary clearly responds incorrectly. G20 and G21, rather than instances of incorrect factual provision, are perhaps better represented as confabulations, since these are inaccurate accounts of Gary's own personal experiences. G24 represents a return to an earlier topic in which the participants tried to establish Gary's age when it became clear that Gary was uncertain of this information. In all of these cases, Gary's turn occurs as the second part of a question-response routine. The assumption that the reduced volume which accompanies his answer is indicative of uncertainty seems reasonable given that the responses he provides are all incorrect in some way. It would also seem that on this basis and in a Gricean framework, willingness to cooperate in the conversation and fulfill an obligation to provide the second-part response is prioritised by Gary over any disinclination to give incorrect information. We may relate this to Gary's relatively well-defined interest in sociability.

G20
S what's appening (1.4)
whisper
G (1.0) what
S what's appening to night
G comedian
G who is
G co median
G21
S 'who did you go with
G (1.1) malcolm'
S (0.8) malcolm

G22
S (.) how many (.) how many legs does a dog have
G 'two'

G23
(2.0) hhhh mmm (.) can you name the month (.) that comes after march
G (1.5) {tsetsemba}

G24
S (1.2) I think you might be twenty four
are you twenty four 'Gary
G 'yes I am'

Repetitiveness may also be a feature associated with reduced amplitude. G25 -G27 below are all instances where Gary models his reduced amplitude turn on a prior utterance. The model in G25 and G26 is other, whilst in G27 it is self. G25 and 26 are both relatively echolalic, G26 especially so since, here, there is no lexical or prosodic modification of the model at all. Instances of “pure” echolalia such as this are quite rare within Gary’s repertoire (as is discussed further below), but that this particular utterance is both echolalic and low amplitude makes it comparable to similar utterances in Phoebe’s repertoire. G27 is somewhat different, in that the model for the repetitive utterance here is self. Further, this extract may also be equated with the uncertainty issue discussed above, since Gary’s response is clearly incorrect. Indeed at this point in the conversation, nearing the end of this section of the WISC-R, Gary’s responses have become somewhat rigid and there are more frequent attempts to initiate abrupt, unnegotiated topic changes.

G25
S (1.0) they might ‘do
G (.) ‘they might do ‘woun’t they’

G26
S (1.9) did ‘very well on that ‘test I’ must say
G (2.3) ‘I’ must say’
A final type of reduced volume utterance is shown below in G28- G30. Here, there appears to be an association with the lexeme “what” and reduced amplitude, however, line 3 in G28 demonstrates that it is certainly not always the case that “what” is uttered with low amplitude. “what” is a somewhat perplexing item in that it recurs frequently throughout Gary’s conversation. Possibly this item can be linked to uncertainty as with G20-G24 above, or possibly here “what” is used by Gary with the minimally communicative but interactive function of turn-taking.

G28

G (1.3) I want to leave
S (3.2) have you heard somebody say that
G (1.2) what
S (.) have you heard somebody say that
G ‘what’

G29

S (1.3) ooh I don’t know (.) my doctor’s a woman
G (1.3) ‘what’
S (0.6) my doctor is a woman (.) a lady

G30

G (1.2) o:sh
S (.) ‘Doctor’ Wa:de
G (1.0) ‘what’
S ‘Doctor’ Wa::de

6.3.6. Consistent phonetic productions: “tickly feets”, “Sushie”, “I want to leave”

6.3.6.i. “tickly feets”

We have already seen how this phrase in Gary’s conversation always occurs with some kind of modification to voice quality. G3 above also exemplifies how this phrase can occur with a high degree of phonetic and prosodic similarity to a preceding self-model utterance. In fact, the phrase has a certain degree of phonetic similarity whenever it is used, this manifesting as a close sequence of vowels and a degree of affrication on the penultimate
consonant with an extension of the final sibilant on "feets" and velarisation of the lateral consonant: [\textipa{tiMiː fjtwsːːː}]. The processes which are affected on it are then similar to those which are described in Gary's speech errors above. The auditorily phonetic similarity on each occasion of use does not extend to the item's prosodic production however.

6.3.6.ii. "Sushie"
The tendency to lengthen final segments recurs here; the favoured pronunciation for this item being to retract the initial consonant and lengthen the final vowel: [\textipa{juʃiːːːː}]. Once again, the vowels are made closer and the consonants harmonised. However there is one occasion where the utterance occurs with a different realisation:

G31
G (.7) { "s\textipa{uʃiːːː}" } almost whisper

Here the initial segment is not retracted, although the vowels are raised as usual. A possible explanation for this realisation may lie in the location of the utterance very close to the opening of the session. This realisation also conforms to the accepted pronunciation of the name. Gary's later realisations may then represent his 'customisation' of the word to conform to his preferred pronunciation strategies. That is, the "tickly feets" and "Sushie" examples seem to indicate a general tendency to harmonise segments whenever possible within certain well used items. In both utterances all the vowels are raised and some conflation of consonant segment features occurs; for example, the affrication of [t] preceding [s] in "feets", and to a lesser degree, the velarisation of [I] in "tickly", as well as the realisation of [s] in "Sushie" as [ʃ]. The pronunciation strategy here could be then described as formulaicised, in that particular operations, for example, raising vowels and harmonising consonants, are carried out on different tokens.

Both "Sushie" and "tickly feets" recur throughout the conversations as asides to the current topic of talk (see above), and as such, these items do not have a primarily communicative significance. The similarity of pronunciation on each occasion of use as well as their formulaicised pronunciation is then perhaps relative to their common functional identity as topic asides.

6.3.6.iii. "I want to leave"
This item is somewhat different to the two above since it is probably best categorised as a frame (Hickey, 1993) and hence is dealt with at greater length below. Although one of the variants of the utterance tends to occur with the same final vowel lengthening as was noted above, the utterance is mainly interesting for its prosodic rather than phonetic form. The utterances are only located in Transcription One (Appendix 4.1.) and exist with the following tone contours:
It will be noted that the syntactic and lexical variants of the phrase seem to have associated recurrent intonation contours. While “tickly feets” and “Sushie” are functionally best described as topic asides, the “I want to leave” frame appears to be more like a communicative utterance, although the likelihood of it having an echolalic source must be acknowledged, since the declared reason for wanting to leave is to find another job (Transcription One: line 71): an unlikely possibility given Gary’s circumstances.

The association of echolalic utterances with phonetic similarity has been made by Local and Wootton (1995), and is relevant to “Sushie” and “tickly feets”. However, the “I want to leave” utterance has a degree of lexical and syntactic fluidity which makes it appear to be less echolalic. The prosodic identity that exists between separate tokens is however indicative of an utterance that is ‘frozen’ to some extent, while its content is indicative of an echolalic genesis.

Hence the examples we have looked at of consistent phonetic productions in Gary’s repertoire seem to indicate two processes at work in Gary’s speech:

(a) that Gary has items with a functional similarity (that is, the function of topic aside) which recur in his talk and which have a high degree of phonetic similarity. This similarity is evident even between the different items with the same conversational function, in the form of formulaicised operations or processes that are enacted upon the segmental structure of the different items. Such processes may be the result of over-use of the items, but in any case, items with the same function of topic-aside may be identified by noting the phonetic processes that have occurred;

(b) other items exist in Gary’s repertoire which, whilst possibly having an echolalic source, now take the form of ‘frames’. That these utterances should be categorised as frames rather
than fully productive speech, is indicated by the association of a particular syntactic and lexical variant with a specific intonation contour. These utterances, whilst containing an echolalic element, have a more interactive function than the topic asides mentioned in (a).

Echolalic phonetic similarity is thus by no means a simple feature in Gary’s talk. Some light can be shed upon it by noting the interaction between features of speech and conversational function, but there are undoubtedly issues which need to be taken account of concerning the cross-over between echolalia and repetitiveness as well as, as has been seen, a type of repetitiveness in which identical phonetic processes are enacted upon items which are different, but have a similar conversational function. Some of these issues are taken up in the section below.

6.4. Echolalia and Repetitiveness

Unlike Phoebe, Gary does not make use of immediate echolalia. With the exception of G26 (shown again below) there are no echolalic utterances of this type recorded in the transcripts.

G26

S (1.9) did ‘very well on ‘ that ‘ test I’ must say
G (2.3) ‘I’ must say ‘

It is, however, noted that there is a large amount of repetitiveness in Gary’s talk as well as, as mentioned above, some utterances which it would seem reasonable to assume have an echolalic genesis. If the definition of linguistic repetitiveness can be taken away from the more usual content-based one, then it will be clear that many of the extracts above exemplify repetitiveness of various types that exist in Gary’s repertoire. G2-G5 show the use of whisper recurring in association with the utterance “tickly feets” at similar discourse structural points. The use of whisper in association with dispreferred contributions to talk is shown in extracts up to G13. The utterances at G16 demonstrate the same phonetic processes operating on different utterances which once again, have a comparable conversationally structural significance. Finally, reduced amplitude is shown to have a similar function whenever it is used to mark utterances throughout the talk in G20-G30. When features become associated with functions to an extent that the association becomes predictable, I would suggest that the feature has in a sense earned communicative significance. Since all of these extracts indicate that repetition of features or processes at the phonetic and prosodic levels in Gary’s talk are associated with particular functions, this low-level repetition should be seen as a linguistically and communicatively important device for Gary.

6.4.1. Formulas and formulaic frames

Since prosodic and phonetic process repetition seem to have a significant status within Gary’s talk, it would seem likely that lexical and syntactic repetitiveness may also be
important. As mentioned above, immediate echolalia is rarely used by Gary. Far more common are formulas or formulaic frames: terms used by Hickey (1993) to describe the movement of an utterance into full productive usage by a normal child acquiring her first language. Hickey developed the notion of formulas in language following on from Bolinger (1976) and Wong Fillmore (1976, cited in Hickey, 1993: 28). A formula is an unanalysed chunk of language “whose elements are not productive” (Hickey, 1976: 27), while the term formulaic frame is “a formula which has been partly analysed, so that there is some substitutability in a grammatical slot within the formulaic construction” (ibid: 28). While the notions of formulas and formulaic frames are used within Hickey’s work to assist in the description of the language acquisition process, Bolinger uses the terms to assist in the description of adults’ complete linguistic systems. Bolinger’s contention is that formulas and frames facilitate fluency in adult speech by minimising the amount of time spent in formulating productive utterances.

Hickey identifies formulas by means of a preference rule system, such that criteria for formulas can be necessary, graded (where a continuum of formulaic-productive language is presumed to exist and where the more evidence of a condition that exists, the more formulaic the language is seen to be), or typical (that is, there may be exceptions to these conditions, although in the majority of cases they will obtain). Hickey’s system is given below (ibid: 32):

1. the utterance is at least 2 morphemes long (necessary, graded)
2. the utterance coheres phonologically (necessary)
3. the individual elements of an utterance are not used concurrently in the same form separately or in other environments (typical, graded)
4. the utterance is grammatically advanced compared to the rest of the child’s language (typical, graded)
5. the utterance is a community wide formula or one which occurs frequently in the parents’ speech (typical, graded)
6. the utterance is an idiosyncratic chunk (typical, graded)
7. the utterance is used repeatedly in the same form (typical, graded)
8. the utterance is situationally dependent (typical, graded)
9. the utterance may be used inappropriately, either syntactically or semantically (typical, graded)

Two candidates for inclusion in the formulaic frame category in Gary’s language are “I want to leave” and “move all the x”. Gary’s use of these constructions as formulaic frames is illustrated below.

6.4.1.1. “I want to leave”

G33a
G (1.6) I want to leave me. I want to leave

G33b (immediately sequential to (a))
G (1.1) I don’t like it. I don’t. I want to leave somewhere

G33c (three turns from (b))
G (1.0) I want to leave now
G33d (three turns from (c))
G (3.5) I want to 'leave, now

G33e (eight turns from (d))
G (1.3) I want to leave

G33f (six turns from (e))
G (1.3) I want to 'leave he-I want - I want a leaving 'present

G33g (14 turns intervene: another topic taken up)
G (2.8) I want to leave

G33h (immediately sequential to (g))
G (2.1) I want to leave cos I want to leave- 'want a leaving 'present

G33i (eight turns from (h))
G (1.6) I want to leave

G33j (five turns from (i))
G (5.7) I want to leave (. somewhere nice

The identification of “I want to leave” as a formulaic frame derives from noting the structure of the utterance as having a stable section and a slot into which items can be inserted. “I want a leaving present” utterances are included, since the pronunciation of “to” and “a” are indistinguishable in the conversations, both forms having the unstressed [a] pronunciation. These utterances were categorised in terms of their intonational identity in G32 above, where it was noted that there were three basic variants of the construction, each with its own intonation contour, suggesting unanalysed formulaic language. The unanalysed nature of this construction is further implied by the existence of G33j and, to a lesser extent, G33b, where it is presumed that the phonological similarity between “leave” and “live” gives rise to the resulting utterances. G33b and G33j, whilst not strictly unacceptable, are certainly pragmatically odd.

6.4.1.ii. “move all the x”

G34a
G "yes"
(0.9) can I m' move all the, chairs out the 'way for im

G34b
G (1.4) can I (.) a rrange (1.0) me and . you (1.7) can I s- (.) at Forest . House (.) w- would they move all the, chairs (.) d- get, organised for im

G34c
G (0.7) all the, chairs 'move out the 'way for 'him

G34c is interesting in that, here, “all the chairs” is preposed, yet the tone movements are as for the other two examples. Untranscribed examples of this frame also exist where the “chairs” slot is filled by “doors” and “buses”.
Formulas in Gary’s language include “arrange it” and “tickly feet”. “Tickle X’s feet” can also be categorised as a related formulaic frame. The “tickly feet” examples are given at G2-G5 above, while “arrange it” examples are given below.

6.4.1.iii. “arrange it”

G35a
G (.) cos I want to r-aarrange it

G35b
G (0.6) arollable arrange it to ‘come, here.

G35c
G arar-would they arollable arrange it for me

All of the above examples fit quite neatly into Hickey’s criteria for formula and frame identification, such that it is clear that Gary has an extensive use of non-productive, unanalysed language. In the case of the “I warn to leave” frame at G33, there also appears to be a local influence at work, since the construction does not appear elsewhere in the transcripts, and all of the examples occur within a maximum of 8 turns from each other, with the majority being much closer or even immediately sequential to one another. To continue with an earlier point regarding this particular construction, a delayed echolalic influence may well be in operation with these utterances. What may be evidenced here, then, is a possible means whereby new constructions enter Gary’s repertoire. An initially echolalic utterance continues life as a formulaic frame, the range of substitutions becoming gradually greater. What can not be known is whether such items can ever attain full productive usage. Certainly within the formulas and frames we have looked at thus far there seems to be a noticeably high degree of contextual limitation on their usage: “arrange it” and “move all the Xs” are always used with reference to Gary’s future time projections of social events, while “tickly feet” is so formulaicised that even its pronunciation is pre-set. Despite situational dependence being a Hickey criterion, the interpretation of this within non-autistic language is considerably more dynamic than it is within Gary’s (see, for example, Hooper, 1995).

The extent of this lack of productivity can be further illustrated by looking at a construction which exists towards the more productive end of the formulaic continuum: “can I/we”.

Examination of this construction is limited to Transcription Two (23.8.95: Appendix 4.3.) for the sake of conciseness:

6.4.1.iv. “can I/we”

G36a
G (4.6) can I introduce him

G36b
(0.9) can I move all the chairs out the way for im
That “can” only occurs in interrogative structures and with first person subjects is immediately apparent. An argument can be made that Gary’s communicative needs within such conversational contexts do not require him to use the modal in other types of clause. As such, it may be possible that Gary does have competent control of “can” but finds no occasion to use it in the circumstances in which the transcriptions were made. However, the fact that there are zero occasions of its use in any other construction than the first person interrogative makes “can” seem a likely candidate for a degree of formulaicity, albeit much less so than the items in G33-35. A further point to note here is that Gary’s use of “can” is suggestive of the pattern of children’s first acquisition of modals (Garton & Pratt, 1998).

An argument for the existence of a continuum of productivity in Gary’s language can then be made. Further, there is a suggestion from an examination of Gary’s formulaic utterances that different formulaic items are productive to different extents. A possible corollary of this is that individual utterances may move along a continuum of productivity such that delayed echolalia may move into more formulaic usage. Whether such utterances eventually become fully productive seems unlikely, given the large amount of formulaicity which seems to exist within Gary’s language. The existence of such a continuum of productivity is, of course, difficult to validate without longitudinal data. Whatever the case, Gary’s use of formulaic language certainly enables him to produce more fluent language than would otherwise be possible. Whether formulaicity in language enables him to preserve cognitive resources which may then be diverted to other tasks, or whether it derives from a damaged acquisition process and hence is a necessary component of his functioning linguistic competence is impossible to know. Perhaps the most fruitful perspective to take at this point is to look on formulaicity as a linguistic resource to which all language users, autistic and non-autistic, have access and to which Gary is inclined to turn more frequently than most. Given the expectations we might have had of Gary’s language on the basis of his WISC-R predictions however, formulaicity has perhaps a more enabling function for him than might otherwise be the case. In comparison with Phoebe for instance (whose WISC-R score it will be remembered, was comparable to that of Gary), Gary’s conversational competence and expressive abilities are particularly surprising.
6.5. Syntax

6.5.1. Syntactic errors
Aside from repetitive or formulaic utterances, Gary's conversational utterances have a typically telegraphic quality. G37 below gives examples of Gary's telegraphese.

G37a
S (.), ye::ah (0.8) it 'sometimes thunders when it's hot though, doesn't it (1.7)' yeah
G no no` thundering to/day

G37b
G (. ) 'thunder ,lightning=

G37c
G (2.7), got (1.2) got to, sta::nd cos (.) 'people 'die in the wa::rs

G37d
S what's 'appening to'night
G "comedian" whisper

G37e
G (2.9) I was (0.5) 'Colin (.) to day

G37f
S (2.0) 'what did you 'do, first
G (0.7) 'clean the buses
S (1.0) 'what did you 'get (.) be:fore you 'started cleaning em
G (0.7) get- (.) a 'bucket of wa::ter

G37g
G (. ) course I've drinking 'lo::ads

G37h
G (1.4) can I (.) arra::nge (1.0) me and you (1.7) can I s- (.) at Forest House (.) w- would they move all the cha::irs (.) d- get organised for im

G37i
G (0.6) a rra::nge it to 'come he::re

G37j
G (1.6) 'what 'me::: doing

G37k
G [tell ] Adrian 'come in here

G37l
G (1.2) that (.) that 'corders, me

G37m
G (2.2) .hhhh HHHHHH (.) it like a 'stitches'
Telegraphic speech necessarily implies constituent omission. The range of omissions in Gary's talk is fairly wide and not particularly consistent. For example, the copula is omitted in G37n but is used in G37r below:

G37r

(2.4) 'tisn’t my birthday today, is it that’s twenty-three today' to himself

Often, Gary omits items that occur early in the clause, as in G37a and G37c. As with these two examples however, it is generally not the case that complete constituents are left out: in G37a, assuming the target to be something similar to G37aa below, the omitted items are existential subject, "there", and the verb phrase auxiliaries. As with children's telegraphic language, the lexical items are present while the function words are not.

G37aa

Target: no there has been no thundering today

In G37c, similarly, the subject and auxiliary have been omitted leaving the later sections of the clause relatively intact.

The pattern of incomplete verb phrases recurs throughout Gary's conversation. G37g is a further example of this. In fact, Gary's verb phrases often have errors as G37c, G37f, G37g, G37l and G37l all exemplify. Omission of morphological tense markers (G37c, G37f) and aspect auxiliaries (G37g) is common throughout the transcripts. G37l is unusual in that, here, although the verb is marked correctly for tense and person, the syllables of the lexeme appear to have been transposed. It would seem fairly clear from the pattern of errors and omissions, then, that Gary has difficulty with verb phrases. In fact, Gary rarely expresses tense or aspect at all, most of his past time references being understood only by inference from the sequential environment of the talk, for example G37l where past tense is conveyed by the researcher, while Gary makes use of the simple present.

Further errors include incorrect case marking (G37j), omission of phrasal conjunction (G37b), omission of preposition (G37e) and errors of clause combining (G37l and G37k). These final two errors seem to derive from a difficulty in correctly marking infinitival dependent clauses (note that the target in G37l is "arrange it for him to come here"). Clause combination often seems to cause problems for Gary. The verb in the tag in G37p does not agree with that in the main clause, and G37h is fairly representative of Gary's
attempts at multi-clause utterances; that is, marked by dysfluencies and frequent pauses. A lot of retracking occurs in this utterance, implying that a major difficulty exists with the ordering of elements. Order problems also sometimes occur within single clauses as in G37q where the object takes subject position.

Gary’s syntactic errors are so frequent throughout the transcripts that it is clear he is using language with a severely restricted competence. Further, the errors occur at all syntactic levels: morphological, phrasal, clausal and inter-clausal, such that Gary appears heavily dependent on lexis and formulaicity in order to intentionally communicate ideas. Often, it is not possible to judge an utterance as syntactically erroneous only because it consists of a single word. Despite the comparisons that have been made above with Gary’s restricted language and the telegraphic utterances of children, Gary’s language and error patterns are not particularly child-like, since he attempts complex utterances (for example, G37h), makes use of fairly tricky modals (G37p) and has an unchild-like tendency to truncate utterances by missing the first few words. Furthermore, the pattern of errors is developmentally uneven, in that utterances like G37m occur where the copula is omitted, yet we also find utterances like G37s below:

G37s
G (0.8) .hhhhh (1.0) no I ‘aven’t been to ‘seaside for long time

where a complex verb phrase correctly marked for polarity, tense, person and number occurs. Indeed, this utterance is also internally indicative of such uneveness in that the complex verb phrase immediately preceeds a noun phrase lacking a determiner.

It would be surprising to find that Gary at the age of 24 was indeed functioning with a linguistic system comparable to that of a child in any case. The errors he makes with complex (and sometimes simple) constructions are perhaps exactly what we should expect from someone who has acquired language to a limited extent and who has then had to make use of it on a daily basis. One should note, however, the heightened importance formulaicity and repetitiveness are likely to have within a system such as this, in which communicative requirements outstrip linguistic compence to a high degree.

6.6. Conversation

6.6.1. Topic

As will be clear by now, Gary is a willing communicator and does not avoid talk as Phoebe does. As such, conversation with Gary is not characterised by long other-turns and frequent, lengthy pauses. Although such turns do occur, they are much reduced in comparison to the extended other-turns that take place within the Phoebe transcripts. G38 is a good example of this type of turn in conversation with Gary.
G38
S  hhhhh.hh
  (1.8) 'what were you 'doing with 'Simon this 'morning
  (2.0) 'what did you , do::
G  wash the 'buses

In comparison with talk with Phoebe, the number of first-part pairs which occur with no take-up in this utterance is limited to one. The pause is also fairly short relative to those which can occur with Phoebe. Relative to non-autistic conversation however, such turn constructions are still rather odd. Thus, while Gary is prepared to supply second-part responses to questions, he may do so in a restricted way. G38 also marks an attempt by the researcher to initiate a new topic. Thus Gary's turn in G38 line 4, as well as being a response to an interrogative, is also an acceptance of a new topic. G39 gives the complete segment of conversation wherein the topic initiated by the researcher and accepted by Gary in G38 is maintained by both participants and eventually terminated. G39 follows immediately from G38.

G39
1  S  (.) o:::h, yeah
2  (3.3) what 'else have you been 'doing
3  (. ) †have you been on ,holiday †
4  G  (1.6) n::o(.) I .haven't
5  S  (2.4) haven't you .been any where
6  G  (1.0) 'drinking 'pi:::nts
7  S  (.) †drinking _pi:::nts †
8  G  (1.1) fou:r
9  S  †'wher::re†
10  G  (0.9) in the ,p(hhh)u(hh)b
11  S  (0.8) you' haven't been 'drinking 'pints have .you
12  G  (. ) course I've ,drinking '.lo:::ads
13  (1.1)h hh hh
14  S  (1.1)wha- what 'pub we- did you .go to
15  G  I don't 'kno:::w
16  S  'who did you .go with
17  G  (1.1)' Simon'
18  S  (0.8)' Simon
19  G  (2.0)' know what'
20  S  (. )what
21  G  (1.4) can I ( .) ârra:ng:e (1.0) me and ,you (1.7) can I s- (. ) at Forest _House (. ) w-
22  would they move all the _chai:rs ( .) d- get _organised for im
23  S  (1.0) they 'might do
24  G  (. )they 'might do `woun't they ′
Thus, it takes 17 turns for Gary to initiate a return to the topic which the researcher had originally moved away from in G38, though it only becomes apparent that the comedian topic has been re-introduced by Gary 8 turns after it actually has, if “know what” (line 19) is taken as the starting point of the re-introduction. As mentioned above, low volume marks a point of potentially problematic conversational transition immediately before the point at which the topic is abandoned by Gary, which continues through the new topic initiation until line 19. It is notable that, throughout the topic initiated by the researcher, the question-response format typical of these types of sequence is followed rigidly, with the researcher asking the questions and Gary providing second part responses without exception. The researcher’s repetition and the subsequent two second pause at line 18 immediately preceeds Gary’s low volume initiation of topic-return. As the re-introduced topic is approached and taken up through lines 19 - 32, Gary takes over the questioning role and the researcher takes on the role of second part responder, although this time, roles are not characterised so rigidly (an exception occurs with S asking a question, albeit a clarification request, at line 28).

This pattern of topic maintenance and termination is typical of conversation with Gary. Abrupt movement away from topic is also seen, particularly when Gary has been subjected to long sequences of questioning:

G40a
S (1.4).hhh what must you , do::: (.) to 'make' water boil (.) 'Gary
G (2.4)¢ tin't my 'birthday to,: day is it that's t-twenty 'three to day * to himself

G40b
(.) hhhh and 'how 'many "days make a "week
G (5.1)¢ 'oh' (0.8) was ,Alec said (.) wa-was-it was ,Alec 'looking for me

Gary again takes on the role of questioner in G40b to initiate a move away from a current topic. Gary also uses questions to initiate a topic after an extended pause:
The use of questions to introduce and maintain topics is strategically enabling due to their two part structure. G42 below, however, is interesting, in that it demonstrates how Gary is able to initiate a topic without the use of question and in a more step-wise fashion (Button & Casey, 1985).

G42

1 (.) have you had e'nough of _training
2 (.) it's hot to'day any'way isn't it
3 G it's gonna 'thunder to' night
4 S (.) d'you 'think _so (2.5) d'you _think so
5 G ,what
6 S (.) d'you 'think it's gonna 'thunder to' night
7 G (0.9) 'no:
8 S (.) 'no:
9 G (1.5) it won't 'thunder to' night cos it's 'hot, weather, innit
10 S (.) yea: (0.8) it 'sometimes 'thunders when it's 'hot though _doesn't it
11 (1.7)' yeah
12 G no no 'thundering to'day
13 S (.) 'no _thundering to'day
14 G (.) 'why has it _gone _now
15 S (0.5)_what
16 G (.) _thunder
17 S (3.11) err (.) _yeah
18 (.) did it _thunder _here, yesterday
19 G (.) it _did _didn't it (.) ((makes thunder noise))
20 S ooh _dear(1.6) what did you _think of that
21 G (.) _thunder _lightning =
22 S (.) thun _ndezr
23 S =yeah
24 G (.) what [ d-]
25 S _t [] cared of it
26 (1.1)
27 why::
28 G ((makes thunder noise and gestures))
oo:h dear (1.4) was it really 'loud
(1.1) ti:s 'loud it ti:s
(0.8) and did it 'make you jump
(0.7) say 'shut up 'thunder
(.) † did you † (2.5) and † did it
(2.4)[It- ] I didn't"hear it
[n-]
(0.7) you didn't hear it
(1.0) bang
(.) you`didn't hear it `bang
(2.0) hhh hhhhhhhhh
(0.6) `what you been ,doing to day then `Gary=

Here, the topic has emerged generally from the talk. Gary's contribution at line 3 easily relates to the researcher's prior turn on the theme of weather. Note that the researcher's next turn at line 4, which marks topic uptake, is nearly missed as such by Gary who requires repair at line 5.

The researcher's turns are often repetitive in this extract, possibly due to difficulties in mutual comprehension. Gary contradicts himself, for example at line 7, where he no longer believes that it will thunder later, and again at line 37 where he says he didn't hear the thunder after all. Such contradictions are immediately followed by repetitions by the researcher. Interestingly, at line 9 where the contradiction-repetition sequence occurs, Gary's next turn sees him providing an explanation, thus maintaining the topic. This does not happen in the sequence beginning at line 37. Gary's next turn at line 40 instead provides further material for the researcher to repeat at line 41, though this time there is no subsequent explanatory take up by Gary at all. The two second pause at line 42 marks the rather abrupt end of the topic, which obliges the abrupt introduction of a new topic at line 43.

As well as repetition, the topic in this extract is also maintained by question and answer routines. The sequence discussed above beginning at line 7 is the closest the participants get to moving away from this pattern, with Gary's explanation at line 9 and the researcher's counter at line 10. However, both participants choose to present their opinions in the form of tagged statements so that the question - response routine is maintained.

It has been shown, then, how topic can emerge naturally from talk or be introduced in a gradual manner by Gary (G39). Topic can also be introduced abruptly as can be seen from examples above and G43a below:
The leaving theme is one that is frequently returned to throughout this transcription and is always introduced abruptly:

G43b
S (0.6) †, yeah †
(2.3) that was _strange wasn't it
G (1.6) I want to leave

The possibility of "I want to ...." being a frame (see section above) arises, when, 10 turns after the occurrence of G43b, G43c takes place:

G42c
S (1.5) why:
(3.9) what makes noise
G (3.8) (2 syllables) (2.1) I want to - I want to march

The similarity in prosody between the two utterances is suggestive of a formulaic structure. Structural similarity at a conversational level also exists in that both utterances are introduced abruptly with no relationship to the ongoing topic. While these abruptly introduced topics may be considered favourite themes of Gary's, they are not so in the same way as the comedian topic is. The comedian topic recurs throughout conversations with Gary while "leaving" and "marching" belong to this particular transcription only. Further, while the comedian is associated with formalic language (for example "can I introduce", "arranging it" and "moving all the chairs"), the range of types of formula is far greater than is the case with "leaving" and "marching", where, as is discussed above, the limits of productive usage seem confined to around three lexically and syntactically closely related variants. In short, Gary seems to have little to say about "leaving" and "marching" other than he wants to do them. Further, the comedian topic is almost covertly introduced in G39, with Gary taking eight turns to fully initiate the topic: "leaving" and "marching" are introduced within a single turn.

Conversation with Gary is then characterised by question-response routines and favoured topics, though the definition of 'favourite' has to be somewhat fluid. Gary will initiate talk in response to extended pauses, and will also initiate topic change. Generally, this is accomplished abruptly and arises in inappropriate places and without negotiation. There may also be a formulaic character to such initiations. However, when the introduced topic is a cross-conversational favourite (for example, the comedian), initiation may be extended and
complex. Question and response routines are so prevalent within conversations with Gary that it is impossible to find a topic that is not majorly maintained by them. Finally, topics, however they are initiated, are generally terminated without negotiation. An important factor here is undoubtedly cognitive limitation.

6.7. Summary

Gary is an autistic language user with particular competencies that, with some success, conceal fundamental limitations of his linguistic system. The section on syntactic errors clearly delineates the restrictions that operate on his productive language. I would suggest that Gary’s use of repetition and formulas at all linguistic levels enables him to make best use of this system and, obvious cognitive limitations aside, to appear as a relatively able conversational participant. The extent to which repetitiveness and formulaicity support Gary’s limited linguistic system is so far-reaching that it is difficult to find examples of his language that are not in some way dependent upon them. Having acknowledged this, it is perhaps surprising that Gary makes such little use of echolalia. Such an observation leads to the notion of competency within Gary’s language. While we are used to productivity being at the core of non-autistic competence, the scope and variation that characterises Gary’s repetitiveness is surely indicative of a degree of competence. While Gary is unable to move on completely from the linguistic input to which he is exposed, he is at least able to manipulate it and tailor it to his communicative requirements to some degree. At the very least, Gary’s capacity to initiate and maintain talk suggests communicative intent to a level approached by neither Tina nor Fiona, whose WISC-R scores it will be remembered, were comparable to those of Gary.
7. Mary

7.1. General Background
Mary is an autistic woman who is resident at the same autistic community in South Yorkshire as Tina, Gary and Phoebe: Forest House. At the time that the research was conducted, Mary was twenty-six years old and had been resident at Forest House for eight years.

Conversations between her and the researcher were audio and video recorded. These sessions were intended to be as informal as possible with topics arising naturally from the talk. Occasionally, other participants were present besides Mary and the researcher, though they were never focal to the interaction. The setting for the taped interactions varied from rooms in the residential unit’s day-centre, which is used by the residents for structured activities, to the living room and kitchen of the satellite house where Mary sleeps and has most of her meals.

In order to obtain background information about Mary, both her parents and her principal caregiver at Forest House were interviewed and the WAIS-R (Wechsler, 1981) was administered.

7.1.1. History
Mary was diagnosed as having autism at the age of 6 years. As a young child, she was placed in both playschool and mainstream school, despite a strong sense on her mother's part that Mary was suffering from deep-seated psychological problems. Indeed, Mary’s mother reports that she had been worried about her daughter from around the time of her third year. Mary’s problems during these early years were manifested in late global development including delayed spoken language development and delayed walking. Mary is remembered as an infant who cried a great deal and was considered overly anxious. Fitting in with a classically autistic profile, Mary did not play, preferring to perseveratively “waggle” objects such as tissues. She showed no ordering or spinning behaviours. When overcome with anxiety, Mary preferred to sit on her potty rather than approach her mother for comfort. Social aloofness was further manifested by a lack of interest in her peers or elder sibling. Mary is remembered as having imaginary friends as a child, though these were simply present rather than taking on the role of passive interlocutor.

Mary can read with comprehension and was taught by her mother to write before she began attending school. This was achieved using a system involving association between specific letters and colours.
Mary is considered by her carers to be a talkative individual. Much of this talk involves lengthy monologues on particular favoured topics. At times, Mary takes up such topics obsessively. Topics have included the dates of birthdays of friends and relatives, the British royal family and politics. Often such obsessive interests decline gradually over time. Mary keeps a diary which she often uses as a means of expressing her troubles and anxieties. She likes music and sometimes sings though in a monotonous fashion. Her spoken language also exhibits a restricted use of tone and pitch movement.

7.2. WAIS-R Analysis
The WAIS-R (Wechsler Adult Intelligence Scale-Revised) (Wechsler, 1981) was administered to Mary by the researcher in a private room in the day-centre at Forest House. WAIS-R intelligence quotient measurement showed Mary as having a full scale IQ of 66: verbal sub-score 70; performance sub-score 65. A diagnosis of mental retardation is given to those with a full scale IQ of less than 70. It will be noted that there is only slight disparity between verbal and performance sub-scale scores. Mary’s performance on the verbal tests was fairly even, though subtest analysis indicated relatively good short term memory skills for number sequences: a common finding in Wechsler profiles of people with autism (Venter, Lord, & Schopler, 1992).

The performance sub-scale measurements showed a similarly even pattern, though it should be noted that a higher verbal than performance IQ is not generally considered to be a typical Wechsler feature for autism (Mottron, Burack, Stauder, & Robaey, 1999; Siegel & Minshew, 1996; Venter, et al., 1992). In relation to the issue of ‘typical’ profiles, however, we should note Gillberg’s comments on diagnoses of pure or “classic” Kanner’s autism as opposed to diagnoses of “autistic-like conditions” (Gillberg, 1992: 816-817). Autism is not a condition characterized by homogeneity, thus one should be wary of describing Mary’s Wechsler profile as atypical of autism. Further, Siegel and Minshew’s findings (1996) urge caution in identifying a particular profile pattern with autism, especially as a diagnostic tool. With these provisos acknowledged, the profile most often associated with autism in the literature is a higher performance than verbal IQ, with lowest score on comprehension and highest on block design (Siegel & Minshew, 1996): 390.

Mary’s Wechsler profile is shown below:
Venter et al’s follow-up study of high-functioning autistic children (HFA) (1992) enables us to compare Mary’s Wechsler profile with other studies which have examined profiles of autistic children, adolescents and adults. Venter’s inclusion of previous research gives a total of five studies of this type with which to compare Mary’s profile:

Venter et al’s Composite Verbal Scores (five studies): ranked 1 (lowest) - 5 (highest)

<table>
<thead>
<tr>
<th>Mary’s Verbal Scores: ranked 1 (lowest) - 4 (highest)</th>
<th>Venter et al’s Composite Verbal Scores (five studies): ranked 1 (lowest) - 5 (highest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arithmetic (1)</td>
<td>Comprehension (1) 100% of studies</td>
</tr>
<tr>
<td>Comprehension (2)</td>
<td>Vocabulary (2) 80% of studies</td>
</tr>
<tr>
<td>Vocabulary (3)</td>
<td>Similarities (2) 20% of studies</td>
</tr>
<tr>
<td>Information (3)</td>
<td>Arithmetic (3) 60% of studies</td>
</tr>
<tr>
<td>Similarities (3)</td>
<td>Vocabulary (3) 20% of studies</td>
</tr>
<tr>
<td>Digit Span (4)</td>
<td>Similarities (3) 20% of studies</td>
</tr>
<tr>
<td>Digit Span (5)</td>
<td>Similarities (4) 40% of studies</td>
</tr>
<tr>
<td>Similarities (5)</td>
<td>Digit Span (4) 40% of studies</td>
</tr>
<tr>
<td></td>
<td>Arithmetic (4) 20% of studies</td>
</tr>
<tr>
<td></td>
<td>Digit Span (5) 60% of studies</td>
</tr>
<tr>
<td></td>
<td>Similarities (5) 40% of studies</td>
</tr>
</tbody>
</table>

Siegel and Minshew (1996), taking sixteen studies into account, had comparable findings (note, that since Venter et al’s study presents findings in more detail, their figures are given here. However, four of the studies incorporated in Venter et al’s scores above are also incorporated in the Siegel and Minshew data, hence the two studies should not be regarded cumulatively). In total, 14 studies had recorded Wechsler scores. Of these, on the verbal subscale, ten had digit span, one had arithmetic and three had similarities as the highest scores, while thirteen studies showed comprehension as the lowest and one, similarities. Mary’s highest verbal score (digit span) accords with these, while her lowest score
(arithmetic) is not mentioned in other studies. Comprehension is second lowest for Mary, however, and this fits better with Siegel and Minshew and Venter et al. Mary’s arithmetic score is somewhat out of line with the other studies mentioned. This may simply be an idiosyncratic feature of her profile or may be as a result of lack of educational exposure.

Whilst there is no official definition of the term high-functioning autistic, it is generally taken that those who meet the DSM criteria for autism while achieving a full scale IQ of above 70 fall into this category (Ghaziuddin, Leininger, & Tsai, 1995: 313). Although Mary’s IQ is slightly lower than this, she is certainly the most cognitively able participant of the Forest House residents who took part in the study, and hence the comparison may be deemed justifiable though tentative. Further, ‘lower functioning’ autistic participants present us with the problem already encountered in this study with the participants Gary, Phoebe and Tina: obtaining a Wechsler score high enough to scale systematically. Two of the Siegel and Minshew studies have mean full scale IQ’s lower than 70 (Allen et al, 1991; Narita and Koga, 1987, cited in Siegel & Minshew, 1996: 390-391). Unfortunately, both of these studies used the WISC-R and had a mean chronological age of participant of around ten years, and in both cases, performance IQ was higher than verbal IQ. These studies are therefore hardly comparable with Mary’s data. Siegel and Minshew suggest that autistic persons with full scale IQs lower than 70 are generally more likely to show significantly higher performance than verbal score than is the case with persons with full scale scores > 70 (1996: 401), who, it is suggested, tend to have more even profiles. If this is indeed the case, then Mary’s profile, despite the provisos above, does suggest a case of atypical autistic ability.

A marked difference exists between Mary’s performance subscale scores and those referred to in the Venter et al study, as is shown below.

<table>
<thead>
<tr>
<th>Mary’s Performance Scores:</th>
<th>Venter et al’s Composite Performance Scores (five studies):</th>
</tr>
</thead>
<tbody>
<tr>
<td>ranked 1 (lowest) - 3 (highest)</td>
<td>ranked 1 (lowest) - 4 (highest)</td>
</tr>
<tr>
<td>Object Assembly (1)</td>
<td>Picture Arrangement (1) 100% of studies</td>
</tr>
<tr>
<td>Block Design (2)</td>
<td>Picture Completion (2) 100% of studies</td>
</tr>
<tr>
<td>Picture Arrangement (2)</td>
<td></td>
</tr>
<tr>
<td>Digit Symbol (2)</td>
<td></td>
</tr>
<tr>
<td>Picture Completion (3)</td>
<td>Object Assembly (3) 100% of studies</td>
</tr>
<tr>
<td></td>
<td>Block Design (4) 100% of studies</td>
</tr>
</tbody>
</table>

Mary’s worst performance score is on the subtest which ranks as second for the HFA group (object assembly), while her best score is for the test ranked second from the bottom
for the HFA group (picture completion). Since the performance scores for the HFA group are ranked identically for 100% of the studies, Mary’s deviation here would seem to have a significant implication. Comparing Mary’s score with the Siegel and Minshew data, we find that all fourteen of the studies with recorded data rate block design as the highest performance subtest score while seven have lowest scores for picture arrangement, six for coding and two for digit symbol (one study has digit symbol and coding as equal lowest). Mary’s scores therefore suggest a quite different cognitive profile. Scoring highly for picture completion suggests a relatively good ability “to grasp the meaning of details within a complete picture” as well as having a comparatively good visual memory, (WAIS-R Analysis Worksheet, 1981). Such a skill suggests an ability to integrate local information into higher level processing (that is, central coherence); an ability which has long been reckoned as deficient in autistic persons (Frith, 1989; Mottron, et al., 1999). Conversely, the subtest of object assembly necessitates an awareness of separate parts of objects.

Mary’s WAIS-R subtest scores then are suggestive of a cognitive make-up quite unusual within an autistic diagnosis. Her best and worst performance subtest scores suggest abilities not often associated with autism as does her elevated verbal subscale score within a full scale IQ of less than 70 (although we should note here that a difference between verbal and performance subscales of less than ten points is not considered significant for the WAIS-R). Mary may then be regarded, in so far as heterogeneity within the disorder permits (see comments above), as having a Wechsler profile which is somewhat atypical for autism. In particular, her verbal ability is greater than her outline cognitive profile would suggest.

7.3. Speech
Mary’s speech can be characterised by a restricted vocal range, a nasal voice quality and a tendency for both cluttering and dysfluency. Prosodic abnormalities are also noted as occurring. Since acoustic measures are not available for Mary’s data at present, intonation abnormalities will be discussed only briefly.

7.3.1. Intonation
Mary’s intonation contours vary, in that while at times they are comparable to those of non-autistic speakers, at other times, tone units have no discernible pitch movement as in M1 below:

M1a
M (0.7) when you going ‘home again
M1b
M (2.4) would you ‘show me
M1c
M [no would you show me how to get that off

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The general impression of Mary’s speech is rather automaton-like, so that, pre-analytically, one may imagine that each syllable is given equal weight and that nuclear tones are completely absent. As with Tina, this feature may be related to the phenomenon of stress equalisation in apraxic speech (Kent & Rosenbeck, 1983). Utterances like those in M1 are however fairly rare. The impression of equally-weighted robotic speech is more likely to arise from Mary’s treatment of non-nucleic syllables. While the transcription does not capture this level of detail, it is clear from the original data that there is very little tone movement besides that which may occur at the nucleus, so that individual syllables of the pre-head, head and coda appear to have equal prominence. Since Mary has a restricted vocal range besides this, the overall impression is that tones hardly vary. Typically, vowel lengthening is used to mark a nucleus, as well as pitch movement and amplitude. However, this is not always the case. In fact, vowel-lengthening is the only feature which reliably identifies a nucleus.

7.3.2. Dysfluency
Mary stutters at times. M2 below exemplifies this:

M2
M (.‘no ‘children (.‘) they had ‘three
 miscarriages [(.]two in ‘nineteen n-‘nineteen (. ‘)]
S [aa:‘h that’s what you were telling me ]
M ‘ninety ‘two (0.7) they had ‘two in nine- (.‘) miscarriages in ‘nineteen ‘ninety ‘two and
 ‘one ‘miscarriage in (.‘) ‘nineteen ‘ninety ‘three (0.9) mum says I got some s-‘sad
 (0.8) when she ‘came up- (.‘) to ‘fetch me- (.‘) my twenty ‘fifth birthday in ‘nineteen-
 (.) eigh- (.‘) ‘nineteen ‘ninety ‘three (.‘) she ‘told me that (.‘) Mary I got some ‘sad
 news to tell you (.‘) I’m a ‘fraid that ‘Tina has had a ‘miscarriage

These dysfluencies generally involve segment, syllable, word or phrase repetition (Crystal & Varley, 1993). On occasion, blocking may also occur though there is no visible indication, through facial expressions or grimacing for example, that Mary’s extended pauses are due to dysfluency. Since Mary’s conversation is replete with extended pauses, blocking is suggested as only a possible cause for some pauses; extended pauses are discussed further below. Excessive prolongation of segments, the introduction of extra words, unfinished words and circomlocutions do not occur.

7.4. Conversation
Conversational features of interest discussed below are topic movement, topic maintenance and repetition, repairs, interference from earlier structures and common collocations (repetitiveness), overlaps (interruptions by one participant during another’s turn), latching (where no gap or switching pause occurs between participants’ turns at talk), and pauses.
7.4.1. Topic and topic movement

As mentioned above, Mary has favoured topics which tend to recur across conversations. Within conversational sessions, however, topics which occur naturally in the talk become favoured, such that they recur frequently throughout the course of the conversation. This is achieved by means of a circular topic movement. We can see this type of topic shift exemplified in M3 below.

Any discussion of topic movement within conversation is bound to be problematic, since our usual perception is that topics flow easily into one another with no definitive boundaries between them. Although it is of course possible for bounded topics to succeed one another discretely, so that one topic is closed before another is initiated, this type of movement is exceptional, and hence we tend to mark such an event by means of an overt utterance, signalling a conversational management activity is taking place; for example, "by the way..." or "to change the subject a moment...". In an unmarked context, the mechanisms by which we achieve topic shift, or conversely, topic maintenance, are so complex that providing a principled account of their dynamics is a huge undertaking. As Heritage says: "everything is, in principle, both potentially related - and unrelated - to everything else" (Roger & Bull, 1989: 28). Nevertheless, Button and Casey (1985) have suggested that transition between topics can sometimes be traced in a 'stepwise' fashion. We may begin with one topic which is moved out of gradually by the introduction of an ancillary topic. The ancillary topic must be accepted by the participants if it is in turn to become topicalized. A further ancillary topic may then be proposed and topicalized, and so the process continues until the original topic seems very distant from the final one.

In the conversational extract with Mary in M3, stepwise movement apparently underlies topical progress. Mary and the researcher are discussing Mary's participation in the mini-olympics during the opening phase of the extract (lines 1 - 4). At lines 3 - 4, Mary moves onto an ancillary topic: badminton. The relation between the mini-olympics and badminton is clearly a likely one. In lines 5 and 7, the researcher attempts to topicalize the badminton issue, receiving minimal responses in lines 6 and 8. Mary then moves back to a restatement of her ancillary movement turn component (lines 3 - 4), before making an abrupt topic shift at line 9, with only a brief pause between the two. Note that there is a connecting factor between the two topics of badminton and the advocacy meeting: Elly. However, the jump at line 9 certainly seems to be beyond the distance of an ancillary topic. The lack of connection between the two topics is partly reflected in the syntax of the turn component beginning in line 9. A full clause occurs before Elly is mentioned at all. Instead, the first clause marking the topic movement away from the mini-olympics contains the non-antecedented pronoun "they". "Elly" only occurs in the second clause construction as indirect object, a functionally less foregrounded position than subject or direct object, and thus of only peripheral importance within the construction. Further, as indirect object, "Elly", is the third-mentioned noun phrase in the construction. Thus "Elly" is afforded prominence neither
syntactically nor through order of mention. This makes the topic movement problematic for
the interlocutor, since the two topics can only be related through "Elly".

Following the topic shift made by Mary in lines 9 to 13, the researcher attempts to move
onto an ancillary topic through mention of the ages of Mary and Elly at lines 14, 16, and 18.
It should be noted that, while Mary's larger topic shift was made without negotiation
between participants, the researcher seeks cooperation for the movement onto ancillary topic
through the structuring of turns as questions. The researcher's attempts to move onto an
ancillary topic are, however, not successful. The long pause in place of topicalization of the
ancillary at line 21 signifies this, whereupon the researcher moves back to the topic initiated
by Mary in line 9. Mary apparently accepts this return and, after some difficulties
(evidenced by brief question and response sequences in lines 14-21), the subject of birthday
parties is topicalized in line 23.

It can be seen, then, that the process of moving from topic to topic, rather than progressing
stepwise in a uni-linear direction, is accomplished in a circular fashion. The researcher
makes stepwise movements onto ancillary topics and seeks to negotiate these by means of
questions. Mary moves either abruptly to topics, which can be categorised through the
examination of their syntax as too distant to be acceptable as ancillaries without negotiation,
or prefers to return to previous topics. In most cases these are topics which have been
initiated by herself in an earlier turn.

M3
1 S: what happens at those then (. ) what will happen at them
2 M: we- well (. ) you 'choose the er (3.6) you 'choose the er (. 8) the event (. ) that you
3 want to go in (. 8) the eve- it depe- depending on what you're good enough (. ) but I
4 want t -to 'learn how .hhh (. ) to get better at badminton so I can 'play with, Elly
5 S: (0.8) aah (. ) does Elly 'play badminton i [2 syllables]
6 M [yes she ] does
7 (1.2) is she good at it
8 M (. ) hhh yes but I've got to get a lot a got to (. ) 'get a lot better (. ) a lot better .hhh
9 and 'last night they 'went to the er 'speak up advocacy group hhh and er (3.2) we
10 'signed (. ) a birthday 'card (. ) f- for Elly (. ) from the , speak up hhh 'advocacy
11 'speak up group hhh and {a}(. ) a-and {a}(. ) Elly was (2.9) cutting her cake-
12 'cutting her (. ) 'birthday cake .hhh (. ) and we sang (. ) and we 'all 'sang 'happy
13 birthday to 'Elly
14 S (. ) I 'noth 'that's f 'lovely (. ) how .old was she
15 M she was 'twenty nine (0.9) she'll be 'thirty next year
16 S she 'will (0.6) is she ,older than you
17 M yes she is
18 S (0.6) how [old are ] you=
[two year-] (. ) = .hhh two years old (. ) she 's two years 'older than me (. )

I 'm twenty 'six (. ) I 'll be twenty , seven in er (. ) 'september =

so (. ) you had a birthday party . then

M (1.2) .hhh we sa- (. ) we 'sang (. ) 'Elly 'took her birthday 'cake to the sp- (. )

'advocacy speak up , group for 'everybody to 'have

S (1.2) ma- who 'made her birthday 'cake for [her]

7.4.2. Topic maintenance and repetition

The extract shown in M4 below enables us to see how a topic is maintained once it has become accepted.

M4

1 M [er ](. ) 'Julie went down to the (1.0)

2 'cake 'shop to order it for her (. ) and 'Patsy (. ) brought it up to the er ( . ) the

3 'day centre for her

4 S (1.6) that 's lovely that was , kind of them , wasn 't it =

5 M = 'yes

6 S and was it a surprise

7 M it was a surprise 'yes (. ) hhh

8 (1.2) it was a- (. ) it was a 'very nice 'birthday 'cake

9 S (0.6) what was it , like

10 M (1.2) I had a look at it (. ) and it was , pink and it was very 'nice (. ) and 'Gladys (1.1)

11 wh gl- (. ) gl- (. ) 'Gladys came 'down . hhh to the 'day centre she says to me 'what 's

12 'that (0.7) she says to 'Elly wh- 'what 's that is that -is that a (1.0) is that a cake or

13 ( . ) is that a pi- ( . ) is that- ( . ) cake or piece o- or -or -is it a rabbit

14 S (1.0) (hhhhhh) . hh 'why was it- 'why did she 'say , that

15 M just a 'joke

16 S (. ) why- ( . ) what was- ( . ) [why-]

17 M [when] I was 'walking up with 'Katy , Portman

18 S (2.0) aah right 'why did she 'make a joke like that

19 'why [was that]

20 M [ she was just] saying it

21 S (1.7) 'what did the 'cake look like

22 M .hh it looked very 'nice

23 S (1.1) wh- 'what 'shape was it

24 M (1.1) it 's like a heart 'shape (. ) but she still got some , left for to 'night

25 S aah (1.3)

26 what [colour ]

27 M [en we -] en we 'had that (. ) its 'pink (. ) en we had that er (. ) 'chocolate gateau
for- (1.0) that we- (.) we 'bought with Clare- (1.0). hhh (.) l - (.) last 'ni:ght (.) with Katy, Portman that we 'bought with 'Cla re 'Bentley the day . hhhh from the Lo-Cost (. ) the er the 'ni:ght be fore . hhh the 'Eily's _birthday (1.3) that we 'had after 'tea last (. ) we 'had it after 'tea last 'ni:ght

S (0.9) 'chocolate gateau

M 'yes

S was it 'nice

M4 follows immediately on from M3. In the first place, it is clear that the topic has been accepted by Mary’s turn initiated in line 1, which is composed of two fairly lengthy turn components. Turns comprising a low number of brief turn components by Mary occurring successively (for example, M4 lines 15, 17, 20, 22) are suggestive of trouble with topic maintenance. The researcher’s contribution to the maintenance of the accepted topic is almost exclusively in the form of questions (for example, lines 14, 18, 21 and 23). A further point to note is that Mary is dependent on repetition in maintaining topic, for example, the use of the phrase “very nice” in lines 8, 10 and 22. This type of cross-turn repetition of phrases is fairly common in autistic conversation and similar phenomena exist within the transcripts of every study participant examined thus far. Within Mary’s turn at M4 line 1-3 there is, however, evidence of repetition of another type. Tables MT: iv and MT: v below illustrate repetition which occurs at the syntactic level: notably, between the two turn components there is an association between clause function at level 2 and thematic relation at level 3.

| MT: iv- Association between clause function at level 2 and thematic relation at level 3: example 1 |
|---|---|---|---|---|---|
| Julie | went | down | to the cake shop | to order | it | for her |
| MAIN CLAUSE | DEPENDENT CLAUSE |
| 1. | | | | | | |
| 2. Clause Function | SUBJECT | VERB | ADV | ADV | VERB | D.OBJ | ADV |
| 3. Thematic Relation | AGENT | DYN | LOC | LOC | DYN | PATIENT | GOAL |
Syntactic repetitiveness also occurs in lines 28 - 31 of M4 where we see repeated use of "that" relative clause constructions.

Further evidence of repetition at the syntactic level can be found in the series of monologues which occur towards the end of Transcription Three (31.8.95: WAIS-R), where Mary is recounting the incidents that took place while she was on holiday. M5 below gives the section from which illustrative utterances are taken.

M5

1 M I went (.) last week (1.1) er (1.0) er (0.7) Tuesday (.) we went to er (1.8). hhh we went to 'Mistycrag an a- (.) an- (.) an- we ad- an we ad a cup of coke (0.9). hhh (.) an- (.) an I bought (.) some postcards an I wrote them to (0.6) mum and dad (.) Finwood Avenue:: (1.1) Andrea Jones (1.0) Grandma Holly (1.0) and Tina- an- (.) an- Michael and I .posted them (.) but I run out - (.) I run short of e::r (.) stamps (.) so Darleen had to give me some stamps (.) an I po-. hh (.) gi - (.) ‘gimme a stamp and I posted it

2 S that’s, brilliant =

3 M = and then e::r (1.7) we went - (0.8) we sa- we sat outside the‘ pub at ‘Mistycrag (0.7) an I had a glass a ‘lemonade (.) [ but e::r ] (1.8) .hh

4 S ‘Jane says

5 [ that’s, brilliant]

6 M to: to ‘Max Lowther (.) hhh you’ve had your ‘tablets haven’t you, ‘Max (.) an I said I- (.) I’ve ad my ‘tablets and she just ig, no:red me and Darleen, said to me (.) ‘Max ‘yes you ‘ave ad your ‘tablets ‘Mary (0.7) so I: (1.6) she, said to me: (.) ‘Mary (.3) shut up (.) so I: er (1.7) .hhh (.) so I said to er (.) no I won’t’ shut up so she took me straight back to the _coach_. hhh and then e::r (5.0) a- (.) an I pushed er (1.1) an I pushed Jane into - onto the roa::d (.) an I pushed two other ‘ladys onto the ‘road as ‘well (.) hhh an I go er- (.) Jane, said to me (2.6) ‘Mary (.3) shut up (.)
For the purposes of this type of analysis, it is necessary to ‘clean up’ the transcribed speech so that hesitations, dysfluencies and false starts are disregarded. Reported speech is also left out of the analysis. This leaves 22 clauses, which are shown below in the sequence in which they occur along with their respective functional breakdowns.

**M5i**

1. I went last week & SVA
2. tuesday we went to Mistycrag & ASVA
3. and we had a cup of coke & and SVO
4. and I bought some postcards & and SVO
5. and I wrote them to mum and dad ....Michael & and SVOA
6. and I posted them & and SVO
7. but I run short of stamps & but SVO
8. so Darleen had to give me some stamps & so SVOmodVerexOd
9. and I posted it & and SVO
10. we sat outside the pub at Mistycrag & SVA
11. and I had a glass of lemonade & and SVO
12. but Jane says to Max Lowther “_” & but SVAO (saying)
13. and I said “_” & and SVO (saying)
14. and she just ignored me & and SAVO
15. and Darleen said to me “_” & and SVAO (saying)
16. she said to me “_” & SVAO (saying)
17. so I said to her “_” & so SVAO (saying)
18. so she took me straight back to the coach & so SVOA
19. and then I pushed Jane onto the road & and then SVOA
20. and I pushed two other ladies onto the road as well & and SVOAA
21. Jane said to me “_” & SVAO (saying)
22. so on a Wednesday we went down to the beach & so ASVA

Of the 22 clauses, only two do not begin with subjects: 2 and 22. These two have a similarity comparable to those analysed at MT: iv and MT: v above:

**MT: vi - Clause functions and thematic relations of sentences M5i: 2 and 22**

<table>
<thead>
<tr>
<th>sentence M5i: 2</th>
<th>Tuesday</th>
<th>We</th>
<th>Went</th>
<th>To Mistycrag</th>
</tr>
</thead>
<tbody>
<tr>
<td>sentence M5i: 22</td>
<td>on a wednesday</td>
<td>we</td>
<td>went</td>
<td>down to the beach</td>
</tr>
</tbody>
</table>

1. Clause Function | ADV. |
2. Thematic Relation | TEMPORAL |
   | AGENT (pronoun) |
   | DYN. |
   | LOCATIVE |
Just as with MT: iv and MT: v, clauses 2 and 22 show identity between clause function and thematic relation. Indeed, the similarity between 2 and 22 is such that the analysis for each is identical at both levels. These two sentences contain the only examples of clauses which do not begin with subjects, and, in all cases, the clause function of subject corresponds with the thematic relation of agent. Further to this, of the twenty sentences with clause initial subject, seven have (conjunction +) SVO structure. Conjunctions with the SVO clauses, as for all other clause types in M5i, are taken from a restricted range which includes “and”, “but” and “so” with one occurrence of “and then”. Clauses which deal with “saying”, with just one exception (13), also have identical structure: SVO. Lexically, reported speech is always referred to using the verb “say”, despite the sometimes vitriolic nature of its content.

It is clear from the brief analysis above that Mary, whilst relatively adept at intentional communication of her message, uses repetition as a resource, both lexically and syntactically. Further, the clauses in M5i suggest that Mary has a preference for canonical structures. Approximately a third of her utterances have SVO structure; all but two begin with a subject, and only one (14) allows an adverbial to interrupt the subject + verb sequence. The clauses which deal with “saying” are reminiscent of Phoebe’s utterances wherein a limited repertoire of syntactic structures occur in company with restricted lexis when the favoured theme of sweets is mentioned. “saying” is always dealt with syntactically, and to some extent lexically, in the same way for Mary. While Mary is undoubtedly more linguistically able than Phoebe, it appears that, in common with Phoebe, the issue of repetition is one which cannot be easily separated from that of restricted range of available items, whether these be at the level of syntax or of lexis. Frequent use of canonical structures is likewise implicit of a restricted repertoire.

Topic is then maintained by the two participants, Mary and the researcher, in very different ways. The researcher uses questions while Mary makes use of repetition. The decline of the topic in M4 begins with the researcher’s turn in line 32 which is brief and structured as a statement, giving rise to a series of brief low component turns before another topic is found. Line 32 is a repetition of the new information given as direct object in the first component of Mary’s previous turn. As such, it is interesting that the researcher elects to use a feature more closely associated with Mary’s style to indicate that the topic is exhausted. A convergence of styles in this case precludes continuation of the topic.

7.4.3. Prior-turn dependence
Despite the tendency to use repetition as a linguistic resource in this way, Mary does not typically rely on prior other-turns to model her own. Using Transcription Two as a data set, Mary was found to use a prior other-turn as a model in only 6 out of 89 turns (giving a percentage of 6.7%). Other modelling was reckoned to occur if the turn had two lexical
words or a complete phrase identical to an immediately prior-turn. The percentage of minimal responses, that is, turns consisting of a single word, was 21.3% (19 out of 89 turns), while the percentage of utterances which showed no prior turn dependance was 71.9% (64 out of 89 turns). Prior-turn-dependent turns were typically much shorter in length than non-prior-turn-dependent turns. Using Brown’s method for calculating mean length of utterance to calculate turn length (1973), prior-turn dependent utterances were 8.16 morphemes in length, compared to 19.4 morphemes for non prior-turn dependent (the latter calculation is based on the first 10 productive utterances from Transcription Two: 25.5.95). Other-modelling for Mary is, then, a seldom-used resource. Further to this, when it does occur, mean length of turn indicates that it is not used to overcome syntactic deficiency, since non-prior-turn dependent turns are considerably longer.

7.4.4. Overlaps and repairs
Within conversation between non-language-disordered participants, overlaps and latching are frequent occurrences. Overlaps are defined as speech occurring simultaneously between participants. Latches can be defined as the simultaneous start and finish of talk of two or more speakers, such that no interval exists between turns. Examples of these features in the extracts above can be found at M3: lines 5 and 6; lines 18 and 19; lines 20 and 21; M4: lines 4 and 5; lines 16 and 17; lines 19 and 20; lines 26 and 27; M5: lines 8 and 9; lines 10 and 12. Although both Mary and the researcher latch and overlap in the extracts above, both tend to be features of which Mary more typically makes use. Indeed, there is only one example of the researcher overlapping in these extracts: M5 lines 10 and 12. M6 below gives further examples of overlaps occurring, both with the researcher and Mary acting as the overlapping turn-taker. Extracts M6a and M6b show two typical occurrences of Mary’s overlaps.

Mary typically overlaps the researcher in environments where it is clear that she is in fact completing an earlier turn. The length of the pause in M4, line 4 and the fact that Mary had apparently dealt with the researcher’s question leads the researcher to assume that the conversation has topically progressed. Mary’s overlaps then, seem to occur as either delayed turn completions, or as a type of delayed self-initiated repair, as in M6b, where the original response is evidently construed by Mary as being informatively deficient. It is tempting to consider these delayed turn completions in a cognitive context as evidence of excessively slow processing time. However, the overlap in M6c indicates that Mary has processed the researcher’s utterance before its completion, thus making a cognitive account less likely in extracts M6a and M6b. Within the context of the conversation it is notable that Mary is only superficially departing from the normal turn-taking conventions during the overlaps in M6a and M6b. Since her earlier turns are not perceived by Mary to be complete, an overlap is ‘not really’ an overlap. Her intention is not to take over the researcher’s speaking turn to make a new contribution, but to revise an earlier contribution. Thus, Mary’s use of overlap indicates that she looks backwards in the conversation as well as forwards.
The researcher's overlaps by comparison occur in somewhat different environments. In Sample M6d the researcher is apparently confirming that she has made an utterance re-interpretation following the additional information provided by Mary in line 2. The researcher's overlap here has more in common with supportive back-channel responses, since she does not seek to continue with it in line 4.

Both speakers, then, have a tendency to overlap simply to carry out conversational maintenance. With the researcher, the infrequency of overlap is perfectly in accordance with her role as facilitator of the conversation (also evidenced earlier in her support of topic maintenance by the use of questions). Mary's overlaps suggest that she too is engaging in maintenance of the conversational mechanisms, although her perspective is different, in that it is her own previous utterances which trigger the overlaps. The environments in which Mary's overlaps occur also indicate that she is not employing a bounded notion of turn-taking. The researcher's turns occurring between Mary's original utterances and their delayed completion appear to be effectively ignored by Mary. An overlap occurring in this context should not then be interpreted as a straightforward flouting by Mary of a current speaker's right to turn-completion. Since Mary has herself not completed her original turn, repair of her own utterance is rather prioritised by Mary over her interlocutor's right to turn complete.

M6a
1 M (1.1) it's like a heart shape (.) but she still got some left for to ni:ght
2 S *aa::h (1.3)
3 what [colour ]
4 M [en we-] en we had that (.) its 'pink' (.) en we had 'that er' (.) 'chocolate, gateau

M6b
1 S (.) 'mhm (2.0) why- why d'you _feel' like you 'don't 'want to go, swimming
2 sometime
3 M (.) I just, do sometime
4 S (.)'don't you want to get'wet (2.9) ds- does it 'not ['feel]
5 M [bec ] ause I 'want to 'do the
6 'same things as what 'Max, Lowther and 'Pete' Sanderson 'do(.) [ 

M6c
1 S (.) a::sh (.) is 'that (.) 'one of those pools that's 'got (.)'slides [and ] 'things
2 M [ yes ](.)
3 'slides and 'things (0.9)
but 'Ellen and 'Hazel didn't

(0.7) 'no she just 'saw 'Ellen and she- (. ) [told- (1.0) ] told 'Ellen
[ oh she' told 'Ellen]

(0.8) "yeah (1.3) that's brilliant

7.4.5. Latching

Latches have a similar distribution to overlaps within the conversational context. M7d - e show instances of these occurring at the juncture between the researcher's and Mary's turns, with the researcher's turn being latched by the early onset of Mary's turn. Latches occurring between Mary's turns with the researcher as latcher are found far less frequently in the transcripts, although they do occur (for example M3 lines 20 - 21). Such occurrences, as with the researcher overlaps, tend to be have a supportive function: M7a below is a typical example of this type of latch. Indeed, throughout the transcription from which this extract is taken (Transcription Two), the researcher's latches, with the single exception of M3 lines 20 - 21, always begin with a "yes"-form utterance, indicating supportive function. Transcription Three (31.8.95: WAIS-R) has far more examples of researcher latching than either of the other two transcriptions. M7a and M7c give examples. Again, the latches appear to have supportive function. The context of the test environment may explain the more frequent occurrence of this type of utterance in the WAIS-R transcription. The researcher has a structured format with which to proceed and latches may be employed in order to move the interaction along.

M7a

[ it ] was just being 'funny =

= 'yeah (2.4) what

does 'everybody' else do at the 'swimming' pool(. ) do they 'all [ ]

M7b

[b]ut erm ( . ) an- ( . ) an the' nose bit is 'missing =

= very good (0.7) ye: :h ^

M7c

(4.1) a gui`ta:r(1.2) a- a violation, there =

= 'hmmmmm

(2.0) with something missing (3.1) with the, thing that, goes over it

(3.1) that's missing =

= ri::ght

M7d and M7e show Mary latching her turn onto an incomplete turn of S. S's immediate relinquishment of her turn is again indicative of her role as facilitator of the conversation
rather than interlocutor of equivalent status to Mary. S’s turns are not always ignored however. M7d shows Mary providing a response to S’s question before moving on to complete her turn with information related to the present topic, that is, the mini-olympics. In both examples of latching, it is apparent from the content of the turn that Mary has a wish to make a contribution on or related to the present topic. In both cases, the information that she gives can be perceived as a moving forward of the topic. Although in M7e there is a repeat of information which she has already disclosed, this is included at the very end of the turn, with the new information relatively foregrounded by early mention.

Although latches and overlaps are, then, in some sense similar in distribution, there is an important distinction between them. While overlaps can be indicative of reflection on the talk that has taken place and can be seen sometimes to be signals of a turn initiated for the purpose of repair, latches seem to indicate a movement forward of the talk in terms of topic.

The researcher’s overlaps and latches are functionally quite different to Mary’s. Within S’s repertoire however, they are functionally alike, in that they tend to be supportive. The somewhat specialised environment of the WAIS-R administration gives rise to a slightly different distribution of latches, although their function remains, as elsewhere, broadly supportive.

M7d

1 M (2.5) and I’m thinking of training for badminton as well (...) and table tennis
2 S (1.5) which- (...) which- (...) of those do you like -=
3 M = I’m getting a progressing at
4 ,badminton an (...) s- so I can ’play with ’Elly E-.Garrick (...) .hhh in the er(1.0) m-
5 mini ly- ’mini ’lympics
6 S

M7e

1 M I ‘liked (.) dressage doing the dress - I ’did the ,dressage last time .hhh (.) and I
2 came ’third with the ’bronze medal (.) and Darren ’Harris [ (. ) ] ’came er (1.0) ca-
3 ca- ’came first with
4 S [wow]
5 M a ,gold cup ,gold cup .hhh (.) cos Darren’s ‘dad (.) Darren ’Harris’s ‘dad ‘came to
6 (.) .hh watch Darre- ’Darren ’Harris (1.0) ,ride in the ’dressage (1.0) and er (.) m-
7 (.) my ’mum and ’dad ‘came to watch ,me (.) r’-ride in the ’dressage .hh (.) and
8 they thought I was very ,good
9 S I bet that was- =
10 M = I got an ’awkward horse called’ Charles (.) who wouldn’t ’trot so I
11 had t-to have a .hhh have a ’stick to make it ’trot [(0.8)] and I came third
7.4.6. Pauses

As mentioned above, conversation with Mary contains many lengthy pauses. Since these are so numerous, only those exceeding one second in length are considered here.

There is a general inclination within the literature to regard pauses as markers of "some kind of increase, delay, or disruption in the cognition underlying the otherwise fluent generation of speech" (Thurber & Tager-Flusberg, 1993: 310). Pauses are normally divided on the grounds of grammaticality or non-grammaticality. A pause is grammatical if it falls between phrases and non-grammatical if it should fall within a phrase. Non-grammatical pauses are presumed to indicate increased cognitive demand on a speaker while grammatical pauses are construed as reflecting effort spent in making syntactic choices (Thurber & Tager-Flusberg, 1993).

Pauses known as 'switching pauses' may also occur between speakers' turns. Thurber and Tager-Flusberg (1993) note that typically within conversations involving autistic participants, these pauses are asynchronous, giving an impression of disjointed, arhythmic talk. This finding is replicated in the extracts of conversations with Mary, where there are often extended pauses between speakers (for example, M4: lines 10, 14, 18, 21, 23).

In Mary’s data, there are non-grammatical pauses, which according to Thurber and Tager-Flusberg’s (1993) interpretation could be construed as being indicative of high cognitive demand. The location of such pauses is, however, significant, given that Mary frequently pauses before content words (M3: line 2; 11; M4: line 1; 12; M8: lines 1; 2; 3). Perhaps a more likely interpretation of these non-grammatical pauses is that they signify difficulty in retrieval of specific lexemes. It appears from the data that lengthy pauses may sometimes indicate that Mary’s difficulty in lexeme retrieval is related to interference from collocative phrases, whether these be common collocations or specifically related to the local context. The pause in M8, line 2 eventually ends with the utterance of the lexeme "apple", rather than "fruit"; the more common collocation in British English being "apple crumble" rather than "fruit crumble". Likewise, in M4, line 12, the pause is succeeded by production of the word "cake" which ostensibly Mary had been struggling to locate. However, her continuing dysfluency results in the hesistant production of the phrase "piece of", which contextually has no meaning. "piece of cake" is, however, a common collocation. Again, it is feasible that Mary’s lengthy pausing may indicate a struggle to inhibit production of these types of phrase, rather than a specific lexeme-finding difficulty.
Further evidence that Mary's conversation is prone to this type of interference in a local context is shown in M8: line 3-4. Here the repetition of "downstairs" is preceded by another lengthy pause. This time however, Mary's attempt to inhibit the perseveration of the lexeme is not successful and we are left with a semantically confusing construction.

It should be noted here, that at times Mary's non-grammatical pausing is almost certainly a result of cognitive load. M9 shows conversational data from the administration of the WAIS-R. The questions in the WAIS-R information subtest are arranged in order of difficulty, so that the easier questions are asked at the start of the test and gradually increase in difficulty. From lines 10 to 19 we see that the length of time required for Mary to respond to S's questions becomes greater with each question asked. This pattern does not continue, however. As the test progresses, it is clear that, unless the questions are connected in some way to one of Mary's particular interests, she either guesses or gives a "don't know" response. The turn in line 19 is particularly interesting since 6.9 seconds is an especially excessive pause length. Prime ministers are a special interest of Mary's and the time spent pausing may be indicative of increased cognitive activity.
are there one hundred and eighty
(3.5) are there one 'hundred and eight
can you 'name a prime
(2.4) just put this book over 'he:re (1.4),ri:ght (1.6) who wrote 'Hamlet
ni' nister of 'Great Britain during the 'second 'world 'war
(6.9) was it 'John ,Astley
(3.6) 'good ,answer (2.4) right (1.3) who wrote 'Hamlet
I don't know
(1.4) 'ri:ght (2.1) a:nd (.) 'what's the 'capital of' Italy
(2.4) 'Rome
very good (3.4) s" excellent s (1.6) d'you know 'who was Louis 'Louis 'Arnstrong
(0.9) he was a 'singer
(2.1) 'very good (1.2) s" excellent s (2.2) e:x (.) d'you know 'who was 'Amy
Johnson
(1.2) no
(4.2) where does the `sun 'rise
(1.0) 'in the' morning

7.4.7. Summary
The experience of conversing with an autistic interlocutor is often described by non-autistic
participants as unsatisfactory. There is a sense that talk is carried out at cross purposes and
communication does not 'really' take place. The data above go some way to suggesting
why this might be, in that it is clear that autistic and non-autistic participants appear to have
quite different notions about conversational structure.

In order to make sense of the data, we should firstly look at the theme of circularity in
Mary’s talk. There is an implicit importance given to the precedence of linear construction
in the talk of people who do not have autism, which is reflected in the concentration of
Conversation Analysis practitioners on sequential organisation (Atkinson & Heritage, 1984;
Langford, 1994; Psathas, 1995; Sacks, Schegloff, & Jefferson, 1974; Schiffrin, 1994;
Wilson, 1991). Conversational interaction is seen as a progressive phenomenon. Mary’s
conversation, however, seems to focus not only on what is to come but what has already
taken place. Her preferential return to earlier topics within a conversation, as well as her
preference for favoured topics cross-conversationally, are a clear indicator that she relies
heavily on what has come before in structuring her present talk. Her use of overlaps for the
purpose of repair or completion demonstrates a conversational style not characterized by
uni-directional linearity. In these cases, Mary is evidently ignoring the primary salience of
current turns. This is not to say that conversation with Mary is exclusively backward-
looking, since clearly, talk also moves forward. It is merely noted that, for Mary, a return to
earlier phases is a more likely option than for a participant who does not have autism.
Linked to the theme of circularity is that of repetitiveness. At times, Mary has difficulty in disinhibiting collocative components. She also shows a tendency to repeat syntactic constructions and lexical items. Such tendencies are of course a feature of normal spoken language and are central to discussions and proposals of various models of sentence production mechanisms (Bock, 1986; Garrett, 1982; Harley, 1995). The tendency to repeat syntactic structures in non-autistic speech is less well-researched than the phenomenon of lexeme or phoneme perseveration. These features are more evident in Mary’s speech than in that of her non-autistic interlocutor, and, to a certain extent, are exploited by Mary in the maintenance of topic. How far such perseverative tendencies are underpinned by cognitive factors is difficult to judge. However, the existence of a connection between good short term verbal memory (as evidenced by WAIS-R profiles for autism) and verbal repetitiveness of these types would seem to be an area deserving of further research.

Finally, the facilitating style adopted by S as the researcher is noted. S makes extensive use of questions, thereby involving Mary in the talk. S’s talk also shows a restricted use of latches and overlaps, the latter being used mainly as supportive features. Mary’s turns, however, are only very rarely constructed as interrogatives, while latches and overlaps occur with relative frequency. At times S’s talk does take on features more akin to Mary’s talk, for instance M4 line 32. Here, the repetition and non-interrogative structure co-occur with the lapse of a topic. The importance of difference in styles of interlocutors is thus highlighted, since, without the facilitation of S, the talk is seen to end. This leads to the paradoxical conclusion that, while difficulty in talk is seen to proceed from differences in expectation and ideas about the purpose of talk, difference also enables the talk to proceed.

7.5. Syntactic Difficulty
Occasionally Mary seems to exhibit planning problems within her spoken language. M10 below exemplifies this:

M10
M = I’m getting a ‘progressing at badminton an (.) s- so I can ‘play with ’Elly E-,Garrick (.) .hhh in the e:r(1.0) m- mini ly- ‘mini ‘lympics

Here, Mary appears to have blended competing structures (Fay, 1982). Unlike non-autistic speakers however, she allows the two structures to stand together. Non-autistic blends tend to contain components of competing structures rather than allow the co-existence of complete units. Also notable about this utterance is the lack of repair, repair attempt or pause in acknowledgement of a production error. Further evidence of planning difficulties can be presumed by M8 above where attempted inhibition of collocation production gives rise to extended pausing.

Planning is evidently also a problem in M11 below.
Here, Mary's attempt to produce a complex utterance results in a turn, the components of which are difficult to disentangle. Mary's target is likely to be close to M11i below:

**M11i**

Target: I used to go with Michael to Shelby for horse riding but (now) I go with Kevin every Friday

This approximation of Mary's target indicates that, while its production has given her considerable difficulty, it is in fact not a particularly complex construction. Two-clause utterances are managed by Mary elsewhere (for example, M4 lines 1 - 3 and M3 lines 3 - 4). However, closer examination of Mary's complex utterances suggests that she does in fact have trouble with these types of construction. While M4 lines 1 - 3 is managed fairly fluently (that is, there are no pauses beyond one second and no retracking), M4 lines 27 - 31 contains more frequent extended pausing and extensive retracking similar to that in M11, such that recovery of the target becomes, once again, extremely difficult. That the source of Mary's difficulty is syntactic rather than lexical in M4: 27 - 31 is indicated by the distribution of the pauses, which do not suggest word-finding difficulty.

The above suggests that Mary has problems at the discourse level. Indeed, Mary's clause combining strategy appears to be limited to the use of rather basic devices. The simpler conjunctions typically associated with early acquisition "and" (M3 line 9; 11; M4 lines 2; 10), "but" (M3 line 3; M5 line 5), "so" (M3 line 4; M5 line 15-16) are used to combine clauses in preference to more sophisticated items. While Mary will attempt to use more advanced devices such as non finite dependent clauses (M3 line 3; M3 line 4) and nominal post-modification (M4 line 28), these tend to result in the sort of dysfluency as occurs in M11. A possible exception is infinitive dependent clauses (for example, M3 line 4) which, along with catenative constructions (M3 line 3), seem to be within Mary's competence. Despite this, it is perhaps significant that when Mary embarks on a narrative-type discourse (as in M5), she tends to confine herself to the use of the most simple cohesive devices. Indeed, M5i shows that this simplicity exists at both the clause and the discourse level.

**7.6. Summary**

Mary then presents us with a competence fairly familiar within the autistic literature for those with comparatively high verbal ability. This ability enables her to converse fairly fluently with interlocutors, although the role of repetition in her conversation has not been
documented elsewhere to any great degree. Her difficulty with complex constructions and concomitant use of simple cohesive devices can also be linked to repetitiveness, albeit syntactic. At the level of speech, prosodic repetition does not occur although Mary clearly has disordered intonation. Finally, Mary is dysfluent. Although the literature has not yielded any work on dysfluency in autism, that Mary’s dysfluency should be characterised by repetition of syllables and segments rather than the prolongation of segments or introduction of extra elements is perhaps more than mere coincidence.
8. Tom

8.1. General Background
Tom is a man with diagnosed Asperger’s syndrome, who is resident at an autistic community in West Yorkshire. At the time the recordings were made he was 33 years old.

Conversations between Tom and the researcher were audio and video recorded. The sessions were intended to be informal with topics arising spontaneously from the talk. The sessions took place in the resource centre of Tom’s community which was located some miles distant from the residential units. They included only the researcher and Tom as participants.

Tom’s parents were unavailable to give background information about Tom. The WAIS-R (Wechsler, 1981) was administered to provide cognitive context to Tom’s talk.

8.2. Asperger’s Syndrome
Asperger’s syndrome is a relatively recent addition to the diagnostic tools, appearing in DSM IV (APA, 1994) and ICD-10 (WHO, 1993), but not in publications prior to these; this despite Hans Asperger’s 1944 definition of the condition. Asperger’s Syndrome had, however, been referred to as a subtype of autism by authors for some years previous to this: for example, Van Krevelen (1971), Wing (1981), Szatmari, Bartolucci, & Bremner (1989), Ozonoff, Rogers and Pennington (1991), Gillberg (1985), Delong and Dwyer (1988). Much of this work considers the distinction between ‘classical’ autism and Asperger’s syndrome. The ICD-10 definition is shown below.

ICD-10 Criteria (1993) for Asperger Syndrome
A. A lack of any clinically significant general delay in language or cognitive development. Diagnosis requires that single words should have developed by 2 years of age or earlier and that communicative phrases be used by 3 years of age or earlier. Motor clumsiness is usual, although not a necessary diagnostic feature. Isolated special skills, often related to abnormal preoccupations, are common, but are not required for diagnosis.

B. Qualitative impairments in reciprocal social interaction (as in autism).

C. Restricted, repetitive, and stereotyped patterns of behaviour, interests and activities (criteria as for autism; however, it would be less usual for these to include either motor mannerisms or preoccupations with part-objects or nonfunctional elements of play materials).

D. The disorder is not attributable to the other varieties of pervasive developmental disorder; schizotypal disorder; simple schizophrenia; reactive and disinhibited attachment disorder of childhood; obsessional personality disorder; and obsessive-compulsive disorder. (WHO, 1993)
The nature of the distinction between Asperger’s syndrome and autism has been a contentious issue. Whether Asperger’s syndrome represents the higher end of the ability range within the autistic continuum (as is suggested by Gillberg, 1989), or whether it is a qualitatively distinct condition (as is suggested by findings such as those made by Ozonoff, et al., 1991) has been the main point of debate between researchers. Such an issue is not of merely academic importance, but may have a crucial bearing on likely prognosis and treatment. Likewise, aetiology is of interest to investigators, although since autism and Asperger’s syndrome are pervasive developmental disorders, their aetiology is unlikely to be simple in either nature or discovery. Further, it should be noted that distinct aetiologies in themselves do not necessarily suggest distinct classification, since behavioural criteria may have an equally valid claim in disorder classification (Szatmari, Archer, Fisman, Streiner, & Wilson, 1995).

Since publication of the DSM IV and World Health definitions, work has centred on trying to resolve the quality-quantity question by identifying reliable clinical differences between high functioning autistic people and those with Asperger’s syndrome beyond the diagnostic criteria. Ghaziuddin and Gerstein (1996) summarise areas that have been researched. These range from theory of mind abilities and verbal memory capacity (Ozonoff, et al., 1991) to tendencies towards psychiatric morbidity (DeLong & Dwyer, 1988; Gillberg, 1985; Wing, 1981) and motoric clumsiness (Ghaziuddin, Butler, Tsai, & Ghaziuddin, 1994). Ghaziuddin and Gerstein themselves research pedantic speaking style in diagnosed Asperger’s patients. While some of these individual studies find significant correlations between a diagnosis of Asperger’s syndrome and a given trait, the contention is by no means resolved. Without question, a close relationship exists between autism and Asperger’s syndrome. Recent studies, that is those published subsequent to the DSM and World Health definitions, are certainly less inclined to report that “no substantive, qualitative differences were found between ... AS and HFA groups”(Szatmari, et al., 1989: 717) than are earlier investigations. Indeed, the author cited here, reports in a later publication that “Subtypes of children with PDD [pervasive developmental disorder] can be identified that differ on variables relatively independent of defining characteristics” (Szatmari, et al., 1995: 1662). Such a trend almost certainly stems from the greater clarification provided by diagnostic classification, although residual concerns remain regarding inadvertently circular comparisons between clinical groups (Szatmari, et al., 1995: 1669).

Since the main concern here is language, it is pertinent to note that while the definition of autism includes the symptom of delayed and deviant language, that of Asperger’s syndrome indicates spared linguistic ability. This however does not preclude the existence of ‘Asperger’s-type’ features of language. Ghaziuddin and Gerstein (1996, following Wing, 1981) refer to a ‘pedantic speaking style’ in Asperger’s syndrome. The term is defined lexically, structurally and conversationally. Szatmari et al (1995) tested productive and receptive structural abilities of Asperger’s children and found that these were comparable to
normals and significantly better than those of autistic children. Szatmari, Bartolucci and Bremner (1989), in a study using parent and teacher recall, found that Asperger’s children were not significantly different to autistic children in terms of repetitive speech or speech initiative, although significantly fewer Asperger’s children exhibited echolalia and pronoun reversal than did autistic children.

8.3. WAIS-R Analysis
The WAIS-R intelligence quotient measurement showed Tom as having a full scale IQ of 76: verbal sub-score of 90; performance sub-score of 62. The breakdown of Tom’s Wechsler scores is shown below.

<table>
<thead>
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<th>Scaled Score</th>
<th>Performance Subscale</th>
<th>Scaled Score</th>
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<td>Picture Completion</td>
<td>5 (1)</td>
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<tr>
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<td>10 (2)</td>
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<td>4 (2)</td>
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<td>Block Design</td>
<td>3 (3)</td>
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<td>8 (3)</td>
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</tbody>
</table>

Tom’s overall I.Q. places him in the borderline range of cognitive ability. Since, in general, clinicians suggest that Asperger’s Syndrome sufferers should have scores within the normal range, Tom’s score just about corresponds with the expected level of ability (Manjiviona & Prior, 1999). Further, the large discrepancy between verbal and performance scores such as is seen in Tom’s profile has been associated with Asperger’s profiles (Lockyer & Rutter, 1969). The large difference of 28 points between verbal and performance scales is significant (Lockyer & Rutter, 1969; Wechsler, 1974). There is little research reporting on intelligence profiles of the Asperger’s group, however Manjiviona and Prior (ibid) suggest that one may expect to find relatively elevated similarities and comprehension subscale scores in comparison to autistic profiles, due to an increased social and verbal ability in the Aspeger’s group. Information, similarities and comprehension do indeed represent the highest peaks in Tom’s profile. A concomitant trough on the block design subtest is also postulated by Manjiviona and Prior. This subtest provides Tom’s second lowest overall scaled score. Hence Tom’s profile corresponds fairly neatly with the expectations of the Manjiviona and Prior study. However, Manjiviona and Prior’s own
findings did not. Their study results were only able to confirm that the Asperger’s group had an overall higher I.Q. than the autistic group.

Tom’s full scale score is closest to that of Mary amongst the study participants. Mary, however, has a far flatter profile than Tom. In particular, the discrepancy between verbal and performance subscales is not significant for Mary. Indeed, Mary’s performance subscale is slightly higher than Tom’s. Both have information, vocabulary and comprehension as high scores, but for Mary this is superceded by her digit span score. Overall, Tom has higher peaks and lower troughs than Mary. Tom’s highest score is on the information subtest, suggesting good long-term memory for facts and alertness to the environment, as well as relatively superior crystallised intelligence (Wechsler, 1974). Tom’s lowest subscale score is on object assembly. The suggested abilities tested here relate to awareness of spatial relations, visuo-motor co-ordination and persistence (Wechsler, 1974). This last factor is consistent with the impression of weariness exhibited by Tom and noted by the researcher during the performance subscale of the test. Thus, it is possible that Tom’s performance subscale score may be artificially depressed. Tom showed no concomitant lack of interest in the verbal subscale tests.

8.4. Speech

8.4.1. Intonation
Tom has fairly flattened intonation contours in much of his speech, though this is by no means always the case. As with Mary, tone can be quite odd: some utterances have very little movement outside the nucleus, others contain stressed syllables but no syllable with primary tone movement, still others contain no tone variation at all. Tml below shows utterances with no tone movement, while Tm2 shows utterances that have stress but no perceptible nuclear syllable.

Tmla
T (.) 'can’t remember'

Tm1b
T 'spose it is'

Tm1c
T (0.8) 'probably'

Tm1d
T (0.8) 'doubt it now' whisper

Tm1e
T (.) 'think so' whisper

Tm2a
T (0.9) 'every 'weekend
As with other study participants, there is an interaction between low volume or voice quality, specifically whisper, and 'reduced' contour. The utterances which carry these reduced intonation contours are always in other-initiated sequences, though it is not always the case that Tom's utterances in other-initiated sequences have reduced tone. In particular, Tom's negative utterances that are overt signifiers of a disinclination to talk (see Tm 3 below), tend to have reduced contours. The utterances below are all taken from the start of Transcription Two (Appendix 6.2.: 1.7.96), when Tom's attention was focused on copying a pattern onto a board with coloured pegs.

During this part of the transcription, Tom's mean length of utterance, calculated in morphemes according to Brown's conventions (Brown, 1973), was 3.59 (44 utterances; 158 morphemes). Many of these utterances were of the type shown above.

Reduced intonation contours then, that is, utterances with either no pitch movement or no nuclear syllable, often occur in company with low volume or whisper. Such utterances never occur in self-initiated turns and seem to be, as with other study participants, indications of a disinclination to talk.

### 8.4.2. Voice quality and volume

Tom uses whisper and reduced volume in a similar way to other study participants. As mentioned above, sometimes this occurs alongside reduced intonational contours. As with other participants, reduced volume and whisper seem to indicate a disinclination to converse (Tm4b), or, on some occasions, a rejection of proposed topic (Tm4a):
Tm4a
S  (.) oth is it jus- (.) just Germany (.) I didn’t ‘notice’ that (0.7) so did they have
    ‘East German’ players as well
T  (.) no :: I don’t [know]’
       whisper

Tm4b
S  (1.3) so does mine (1.4) we ought to change them (.) shouldn’t we (3.6) d’you
    know how to change yours
T  (.) *no:: *
S  (1.4) spect you just have to ‘wind it on
T  (1.0) ‘yeah’
S  (3.8) it’s a bit annoying isn’t it =
T  =’yeah’

As with reduced contour, there is an association between these features and the negative
overt signifiers “(I) can’t/don’t remember” and “(I) don’t know”. Thus, even in
sequences on Tom-initiated topics, the association between negative signifiers and reduced
volume/whisper can be seen:

Tm4c
S  [why ] (.) ‘why did they want it
T  (0.7) I think they wanted it to: erm (0.8) ‘I don’t know’ (1.1) they just hoping for a
    bit of empire ‘building somewhere (.) some[where that]t =
       fast

Note however, in Tm4c above, although the topic is Tom-initiated, the turn is not. Tom’s
self-initiated turns tend to have quite different features to other-initiated turns, regardless of
the source of topic.

Reduced volume sometimes occurs towards the end of utterances:
Tm5a
S  (3.2) ‘yeah::h (.) it’s ‘crazy (6.3) strange (2.6) d’you know anything about the
    ‘english civil war
T  (1.1) little bit (.) Oliver ‘Cromwell came out best on’his (.)[si ]de

Tm5b
T  = ‘cut off ‘Charles
    the first’s ‘head ‘eventually’
Tm5c
S (. they hanged a 'lots of 'people didn't [they]
T [ 'so ] did the other 'people (. ) you can't
'put him 'down' to that particular"

Tm5d
S what' happened to it
T (. it's 'launched into space (. )' it was a' satellite'

This sudden dropping off of volume at the end of utterances, suggests the loudness
declination associated with linguistic function in non-autistic utterances (Laver, 1995: 505),
albeit somewhat exaggerated. The drop in amplitude in the Tm5 utterances is rather abrupt,
unlike that of non-autistic speakers, where there is generally a gradual declination. Tom's
loudness range is in fact rather broader than one would expect for a non-autistic male of his
age and build (Laver, 1976). Tm6 below shows utterances with sudden increases in
loudness.

Tm6a
S = ,yea:h (1.1) I 'mean it's quite 'nice to 'know (. ) I
"mean (1.0) say if you 'knew- =
T = JUST KNOWING 'KNOWLEDGE as an 'end in
it, self isn't a 'purpose in it, self is it'

Tm6b
T (0.9) 'I didn't 'weave'
S (0.7), didn't you
T (0.9) 'no' (0.9), nobody 'did (2.5) but 'say (. ) is just (. ) 'LEARNING something for
the 'sheer hell of ,learning like (. ) one 'sense would be all, right d- even though it's
'interesting but

As with the utterances with sudden volume drops, these increases in volume have a
comparable function to similar non-autistic utterances. Tom uses volume to compete for the
floor in Tm6a and to signify the beginning of a self-repair sequence in Tm6b. Again, it is
the abruptness of the amplitude shift which makes the utterances seem unlike non-autistic
speech.

Volume in Tom's speech is in one sense then, the converse of pitch movement. While
Tom's vocal range is rather narrow, his loudness range is relatively broad. Since there is a
suprasegmental interaction between pitch and loudness in speech, it is perhaps not
surprising that peculiarities within one dimension should necessarily co-occur with
peculiarities within the other. Intonational irregularities in autistic speech are well
documented, although the interaction between the prosodic features of autistic speech is
evidently not well understood. Since acoustic measures are not available for this data, the issue cannot be sensibly undertaken here. However, these brief observations suggest a promising area for further research.

8.4.3. Rate of Speech
At times throughout the transcriptions, Tom speaks very quickly. At the same time, and as with the other study participants, he is inclined to pause for extended periods during speaking turns. Thus, is an impression given of arhythmic tempo. In fact, this impression is likely to stem from a disjunction between Tom's speaking rate and articulation rate. Speaking rate is the rate at which speech is produced within a turn including pauses, while articulation rate refers to the speed at which only vocalised material is produced and is hence generally calculated using a turn component (Laver, 1995: 539). There is no preference in English for speaking rate and articulation rate to accord. However, Tm7 below exemplifies how the opposition between the two may be regarded as problematic in Tom's speech.

Tm7

T (0.9) 'no' (0.9), nobody 'did (2.5) but 'say (.) is just (.) 'LEARNING something for the 'sheer hell of learning like (.) one 'sense would be all, right d- even 'though it's 'interesting but (1.2) in ge'ography have to tell about 'which 'countries have ,rainforests I mean the 'whole (.) mè nagerie of 'countries that had 'them (0.8) .hh though the 'trouble is (0.9) at the 'same 'time as I'm doing it the 'very 'second the 'very 'instant it's 'happening it's all 'going

overall turn length = 18.8 seconds
length of line 3 = 2.02 seconds
overall syllables = 94
syllables in line 3 = 20

Tom's articulation rate for line 3 is 9.9 syllables per second, while speaking rate for the whole turn is exactly 5 syllables per second. This articulation rate is far beyond expectations for normal rates (Laver, ibid, mentions a top articulation rate as 8.2 syllables per second), while the speaking rate is equivalent to the average rate of a speaker speaking at a medium tempo. These periods of fast speech occur periodically; typically when Tom is engaged in turns arising from a self-initiated topic, but may occur in almost any conversational environment.

8.5. Conversation

8.5.1. Topic shift, topic maintenance and questions
Conversation with Tom proceeds quite differently according to context. Tm8 is an extract from the beginning of the first transcription (Appendix 6.1.: 24.6.96).

Tm8
so 'what did you` do with your `dad this `weekend did you (.j go anywhere
(1.0) I 'don't think we,did(.) part from the, pub for a meal
(.j can't remember`
↑ ''can't you re'member''
sirloin, steak 'I`think'
'oh, right (.),that sounds 'nice
'spose it is'
(0.6) 'what's your, dad like Tom
(1.1) 'he has the 'same thing (1 syllable) something.else'
(1.9) is he nice (. ) your 'dad
(0.6) 'spose he is'
(1.0) do you see him` every 'weekend
(0.9) 'every 'weekend
(2.5) have you ↑ 'got any 'brothers and' sisters 'Tom ↑
(1.1) one 'called, 'Nigel (1.0) and one 'called' 'Hannah (. ) but they 'live 'far away
now
(0.8) oh, right (0.8) how 'old are they .then
(0.9) think Nigel's about thirty 'four (1.3) and I'm (1.8) thirty,three
(3.1) and 'what about 'Hannah
(1.9) 'older than that '(2 syllables)''
(1.0) so - (. ) she must be: (1.2) thirty 'nine
(0.8) 'probably'
(1.0)'yeah (. ) thirty 'nine
in that 'year(.)'sputnik 'went up
(1.2) did`it =
↑ 'yeah'
(1.6) who- (. ) whose (. ) who did the`spunik be`long to

This type of sequence is fairly common. The researcher asks 12 questions in 29 lines of
talk. Turns which do not contain questions (for example, lines 7, 23 and 25) contain
acknowledgements of Tom's contributions (for example "oh right" at line 23), or
evaluations (as at line 7: "that sounds nice"). All but one of Tom's turns have the function
of response to an S turn. These responses are often minimalistic in some sense. At lines 20
and 22 they have a truncated quality (subject omission at lines 4, 8 and 20; borderline
acceptable pseudo-cleft construction at line 22). Some responses have a formulaic or
repetitive character. "can't remember" is mentioned above as being a frequent response to
questions with which Tom has no particular interest in engaging. The "suppose" type
response (lines 8 and 12) can also be equated with formulaic responses as it recurs
throughout the transcriptions in similar contexts. Tom’s responses are not always minimal. At line 2, there are two components to his turn, and at line 6 he takes up an earlier question to which his first response was minimal and formulaic. At line 16 there are three components to Tom’s turn. Line 18 is a two component turn, the second of which is not a strictly relevant response. This component may in fact represent an attempt at topic shift, but is not taken up by the researcher, who uses the next turn to bring Tom back on current topic with, typically, a question. Tom’s one turn not constructed as a response (line 26) is a more obvious attempt at step-wise topic shift. The ancillary topic arises from a legitimate connection between dates. Line 26 then breaks the pattern of question-response-acknowledgement/evaluation. The topic does in fact get taken up this time. However, the researcher accepts the topic (line 27) by means of another question, thereby re-establishing the question-response routine within the minimum possible number of turns. Perhaps not surprisingly, the new topic, continuing the original pattern, lasts for only a few turns.

Sequences such as this, with researcher taking the role of questioner/acknowledger/evaluator and study participant as responder, are common throughout the transcriptions of all the study participants. As with Mary, the turns have few components, many extended pauses, and topics tend to decay rather than progress naturally onto new ones, so that new topics have to be introduced overtly and abruptly. A more successful sequence is shown below at Tm9.

Tm9

T (0.6) and we just that moment (.) thank ‘goodness we had the (.) Americans (.)
made up for it (1.5) that, Pershing, missile which is ‘name now (0.7) is ‘named after a first world war general (.) he was the commander, chief in the first world war (.)(they make now)
[fast]
S [↑ o.h right ↑ ]
T (0.8), Pershing (.) * they’re called*
S (0.6) ↑, oh [ , did they]!
T [ ‘one ,te ] rrible ‘thing we did ,after the ‘first world war which weren’t ‘anything to ‘do with the ‘Germans or our allies or anything like that- or the Turks or anything like that (0.6) was the Amrisa, Massacre after the first world war (.) that was in India (0.9) ‘lots of’ Indians who ‘actually ‘fought with the, British (.) during the first world, war(0.8) ‘General Daimond ‘shot a lot ol Indians ‘dead = [fast]
= ↑, why::↑
S (0.8) cos there’s (0.7) civil un rest in Amris,azl:(1.4) it was an un lucky , day for them
cos it was the thirteenth of, April
[fast]
T (0.8) o:h ‘nightma:re↑ =
= and they were ‘a:ll (1.0) ‘gathered in this, square (0.8) and
he’d ‘told em not to be ‘gathered there [(0.8) and] he ‘took some ‘armoured, ca:r:s
[‘mmhm m]
S (0.8) and some ‘troops who were ‘actually, Indians (0.8) and ‘Nepal Ghurkas
Oyeah = and lined em up (.) and he didn’t give em any ‘warning to disperse cos it
were (.) the r-. (.) un - (.) ‘lawfully (.) as ‘sembled” anyhow (.) so he just ‘ordered
them to fire with ma’chine guns (1.1) and if he’d been able to take his ‘armoured ‘car
in he would’ve taken the ‘armoured ‘cars in (.) but it was too ‘narrow for them to ‘get
in so he ‘didn’t ‘take them in

(.) what would’ve happened if he’d got ‘those in =

± ‘lots ‘more’d’ve been ‘dead’ (0.8)

he ‘killed 379 ‘people out ‘right

(0.7) ↑ that’s out ‘rageous↑

(.) and ‘killed ‘one thousand and ‘wounded ‘1208’ others

(0.6) ↑ that’s out- (.) out ‘rageous↑ (0.6) [how many-]

[he was ] ‘asked to re-sign from the

‘army (1.0) and ‘all he said after that (1.2) his reply (.) to the Jalamwalaba: (.)
‘massacre was it did a ‘jolly lot of ‘good (2.2) and (.) to f: hu ‘militate them he got
them on their ‘hands and ‘knees they were ‘crawling on this ‘pavement where this
‘woman (.) had been beaten, up (.) and didn’t (.) this ‘European (0.7) they had to
get on ‘hands and ‘knees and ‘crawl ‘along’ (.) ‘all ‘four:rs this (.) ‘crowd of
‘Indians’ (.) and ‘they ‘whipped ‘those who re fused’ tied to a ‘whipping ‘post’ they
was meant to re-sign from the ‘army (1.2) and he ‘died in retirement in ‘ninetyseven

(2.0) was there an ‘uprising after he ‘did that =

(0.9) cos everyone was ‘too:

(0.6) and ‘another ‘terrible ‘thing’ that happened (.) the ‘man who in vented ‘gas
during the ‘first war got the ‘Nobel Prize for ‘chemistry (.) which is ‘frightened he
might get ‘hung (.) or ‘something like that (1.4) or ‘executed (0.7) but in stead he got
the Nobel ‘Prize he got ‘honoured (.) for his work in scientific circles fast

(0.8) ‘what d- (.) ‘what did he in vent

(0.7) ‘he dis ‘covered the ‘poisonous ‘gas =

= o:h ‘ri::ght

(0.7) and he ‘got (.) the ‘Nobel ‘Prize for ‘chemistry

(0.9) ‘good (2.0) oh that’s ‘horrible (0.7) [who ‘was ] it (.) ‘d you know ‘who =

[the ‘reason-]

Fritz Herber

(0.7) ‘right

(1.4) ↓ ‘ironically e nough he was one of the ‘first ‘targets of the ‘Nazi ‘regime

(0.7) ‘rea::illy

( .) ‘yeah
In all, four topics are dealt with in this sequence. The Second World War is discussed in the opening lines. The researcher introduced this as a topic at line 295 of Transcription One (Appendix 6.1.: 24.6.96), while America’s involvement in the conflict is introduced by Tom 10 lines into the sequence (Transcription One: line 305). Tm9 starts 19 lines after this. The pattern of question-response is evident during the lines prior to Tm9, although not quite as rigidly as it is in Tm8. In all, the researcher constructs 5 out of 9 turns as questions while Tom takes almost twice the amount of floor time as the researcher. The researcher’s non-question turns are all minimal response units. Tom’s first turn of Tm9 includes a topic shift from the issue of America’s involvement in the war to Pershing Missiles and the commander after whom they are named. The shift is certainly acceptable in terms of relationship between topics and, as such, represents a legitimate ‘moving-on’ of the talk. Up to this point, then, all topic movement has been initiated by Tom. Topic shifts during this and the prior sequence are not only Tom-initiated, but tend to occur during the space of a single turn, that is without negotiation. Topic shifts also occur at line 8 and at line 45 of Tm9. Again, these are Tom-initiated and occur without negotiation during the space of a single turn.

It is noticeable that the researcher contributes little to the topic content during this sequence. Tom acts as the dispenser of information, while S’s turns are almost entirely responsive. Just under half of the researcher’s turns are again, questions, although during this sequence they are facilitative rather than attempts to steer the discourse. Indeed, 5 of these questions are latched or overlapped by Tom, and a further 2 are rhetorical. The extent to which the researcher’s questions are dependent on the discourse can be evidenced by their anaphoric
of her questions anaphorically link to the prior discourse, while only 3 do not. In these 3 questions (lines 13, 65 and 74), the links to the prior talk are made through repetition of lexis (line 74), continuation of prior other-turn by addition of adverbial (line 65), and the use of a single wh-word (line 13), which necessarily coheres to the preceding turn. Hence Tm9 is very much Tom-led and, as such, clearly contrasts with Tm8.

Interestingly, topic shift in both sequences (Tm8 and 9) is managed by Tom rather than the researcher. S’s questions in Tm8 are without doubt topic introduction attempts, none of which are successful. Her Tm9 questions have a different function as stated above. Whereas the Tm8 questions represent attempts by S to negotiate new topics, Tom manages topic shift in Tm9 without questions or negotiation. Instead he moves the talk along by means of declarative utterances (Tm9: lines 2, 8, 45). At lines 8 and 45 Tom makes it clear that he is introducing a new topic through the use of an evaluation of the upcoming material. These evaluations cohere through lexis, and to a certain extent, syntax.

Tm9a

T [ 'one: terrible thing we did after the 'first' world 'war which weren't 'anything to do with the 'Germans or our allies or anything like tha-' or the 'Turks or anything like, that'(0.6) was the Am ri'sa, Massacre after the first world war (. . .) that was in' India (0.9) 'lots of

Tm9b

(0.6) and another 'terrible' thing that happened (. . .) the 'man who in'vented gas during the 'first war 'got the 'Nobel Prize for, chemistry (. . .) which is 'frightened he might get 'hung (. . .) or

The syntactic similarity between the two can be seen if one allows that Tm9b has an omitted past tense copula at the point of the first micropause, in which case, both utterances have a basic SVC construction with complex subjects and complements.

Tm9a and 9b represent legitimate floor-holding initiations in that by evaluating upcoming talk, Tom signifies he is about to extend his turns. Tm9b in particular, with its cohesion to Tm9a, gives the co-participant a clear indication of the type of conversational event that is about to ensue.

Topic-shift, then, is, perhaps surprisingly within the context of autistic discourse, largely managed by Tom. His initiations become topicalised and arise legitimately from the preceding discourse. Tom also signifies extended floor-holding through cohesion and prior evaluation of ensuing talk. Co-operation is not sought by him however, such that topic-uptake is not a negotiated activity. Similarly, topic maintenance is mainly Tom's province. The researcher's questions in Tm9 appear to have the function of maintaining topic; topic may be facilitated through the use of wh-questions (line 13, 32, 49, 53), rhetorical questions
clarification requests (line 60, 65), as well as open/yes-no questions (line 42, 69, 73). However, examination of the talk surrounding these turns reveals that the topic is not dependent on them for up-keep. For example, the wh-question at line 13 is dealt with by a Tom in a single turn component, after which he continues with the topic as if no interruption had occurred. The attempt at a wh-question at line 32 is overlapped by Tom and not acknowledged by him at all. Similarly, the researcher’s next question at line 42 is latched by Tom and, despite being a potential conduit for topic development, is again dealt with minimally (line 43), with Tom making an unnegotiated topic-shift in his next turn (line 45).

Thus, the researcher’s questions do not facilitate topic maintenance in Tm9. Although they enable the researcher to take part in the discourse, and are possibly indicative as to her perceived notion of her role as discourse facilitator, in reality they add little to either topic movement or maintenance: while Tom controls the former of these, topic maintenance, at least in this section of the transcript, the researcher’s facilitation attempts seem to be largely superfluous. The impression is given of a monologue with interruptions rather than a dialogue between co-participants. Such an impression is given further weight by examination of the types of turn taken by each participant. We have noted the researcher’s frequent use of questions. She also makes use of supportive utterances, both back-channel (Tm9 lines 5, 19), and as turns in their own right (Tm 9 lines 16, 21, 30).

The researcher’s questions occasionally lead into topic uptake. Tm 10 below shows such a sequence. It will be noted however, that the topic is short-lived. In this case, its maintenance is entirely S’s responsibility and is achieved entirely through the use of questions.

**Tm10**

S (.) ‘covering them with chemicals (.) so you - (.) you’re supposed to be very ‘careful where you ‘buy your bananas from ‘now (1.0) and only get them from ‘countries where they’re not (.) ‘hurting ‘people (8.8) do you know ‘anything about the Vietnam war

T (1.2) it’s ‘finished ‘thank ‘goodness (.) it took a ‘long ‘time to (0.8) come to an ‘end (.) it did ‘only ‘continue what doing ‘what the ‘French had ‘finished off (.) with the Americans and they made a (.) ‘worse ‘job than the ‘French did =

S = ‘mmhm’ (0.8) †

‘mmmhm’ (0.8) †

T (1.0) ‘yes’

S (0.6) ‘how come

T (1.2) ‘well they wanted independendence (.) ‘these ‘country (.), ‘from ‘France

S (.) ‘mhm’ (19.9) ‘loads of ‘wars ‘aren’t there (.) do you know about the ‘Bosnian one (.) ‘war [now ]

T ‘[not really] (.) no’ =
It is notable that Tom’s talk includes no supportive features at all. Back-channel utterances are entirely absent, while overlaps occur only as anticipations of turn completion (Tm9 line 8, 66), or as floor-taking gambits (Tm9 line 33, 61). As such, Tom’s talk bears none of the features associated with facilitative discourse. He does however, occasionally use questions. Questions which have direct relevance to ongoing talk may be regarded as facilitative of that talk. Excluding tags, Tm11 below represents the full set of questions asked by Tom from the first two transcriptions.

**Tm11a**

S (2.4) where did you ‘live before, Tom

T (1.3) place called Turnpike Lane (0.9) ‘Leeds ’19’, area’

S ‘right

T (0.6) off ‘Morley’ Road (.) ‘heard of the area’

**Tm11b**

S (1.6) did you get ‘rid of that coffee (.) were it horrible =

T = yeah

S (2.2) go on

T (‘) what else’

**Tm11c**

S (0.8) ‘that like the, best ‘room’ then

T (0.6) no::: (1.2) we have ‘gas ‘one time we used to have an ‘lectric oven (1.2) ‘what do you prefer ‘gas or ‘lectric

**Tm11d**

S (0.8) ‘what did he do

T (‘) ‘lecturer at ‘Grape’ Lane

S (‘) ‘oh’ right

T (‘) ‘heard of that, place

S (‘) hhu, mum

T (‘) ‘heard of ‘Grape’ Lane

S (‘) yeah (1.4) ‘what did he lecture in

**Tm11e**

S (‘) ‘no (4.4) do you ‘know—

T [I’m ‘doing ‘this one ‘aren’t I) ‘banging on picture he’s copying

S (0.6) ‘yeah (.) you ‘are (.) ‘yeah

**Tm11f**

T (0.6) Kevin ‘sometimes’ (0.6) I’ve been to his house ‘once or twice’

S (‘) ‘oh ‘yeah
T (.) do you know where "Abley" is
S (0.9) "no:
T (0.7) Ipley 'area (.), know where it is'

Tm11b can be regarded as a clarification request and thus is a discourse maintenance device. Similarly, Tm11e is a straightforward process question, in that it relates directly to the activity which is carried on alongside the discourse: that is, it has exophoric relevance. The remaining five questions asked by Tom may be regarded as integral to the discourse in that they are relevant and meaningful in the context of the current topic. In fact, all relate to similar topics: Tom's life outside the Residential Centre. There is structural and lexical similarity between 11a and 11d in that both include the same verb in the same tense and both have the same auxiliary and pronoun omitted. Likewise, the question at line 5 of Tm11f has auxiliary and pronoun omitted. A further point to note is that all but one (Tm11c) of the discourse-relevant questions above are concerned with location. Having noted that some of Tom's questions have shared structural identity and that there is a tendency for them to include some locative reference, Tom's use of discourse relevant questions in relation to topic is explored further below.

8.5.2. Topic and discourse structure
The section from which Tm11d is taken is the start of Transcription Two (1.7.96: Appendix 6.2.). The discourse structure of the whole of this part of the transcript (until after the coffee break when Tom is no longer engaged in completing his puzzle) is of the type we have come to associate with unsuccessful interchanges between Tom and the researcher. All but one of the researcher's turns includes a question, while Tom's turns are brief and sometimes truncated (as with Tm11d above). There are long switching pauses; the final one marking the section end is 13.9 seconds. "can't remember" and "don't know" are both in evidence, as are low volume utterances. Thus it is clear that Tom is engaged only minimally in the discourse throughout the section.

By contrast, the section at the end of Transcription One (Appendix 6.1.: starting at line 649) from where Tm11c is taken, is structurally indicative of a far more successful sequence. Whilst many of the researcher's turns are structured as questions, turns from both participants are far more likely to be multi-component. Further, whereas turns are linked dyadically in the Tm11d section (that is, the researcher asks questions and Tom responds in two part sequences throughout the section), in the Tm11c section, linked sequences continue over a greater number of turns. For example, Tm12 below (taken from the longer section) shows the researcher's question at line 1 eliciting a two component response to which Tom continues to add over his next two turns. The researcher's questions at lines 3 and 5 are both emergent from and facilitative of the topic, rather than attempts at new or ancillary topic initiation. As well as Tom's question at Tm11e, Tom also uses a tag at line 18, further
indicating that the participants in this sequence are far more co-operative than is the case in the Tml Isd section.

Tm 12

1 S (1.9) 'what was it, called
2 T (0.7) 'Timba (1.0) 'black
3 S (.) was he:
4 T (.) 'black 'very 'hairy in deed
5 S (.) was h(hhhhhhh)::::::
6 T (.) used to 'brush his 'coat 'off in 'summer and there was' loads
7 of 'hairs [on the 'brush]
8 S [(hhhhhhhhh)]
9 hhhhhhh (0.8) did you 'like him
10 T (.) yeah (.) he used to 'chase 'cats
11 S (0.6), did he
12 T (.) 'bark at 'cats a 'lot
13 S (.) hhhhhhhhh hhh [hhh ]
14 T ['near ]ly goes up a 'tree after the 'cats (.)
15 at 'one 'time =
16 S ='hon[estly]
17 T [they] ar( .) they 'arch their backs ( .) l- like , that (0.6) n- and , spit
18 ( .) they 'do 'spit at , dogs , don't they =
19 S = 'yeh:
20 T ( .) goes ((spit)) (0.9) it's 'really dis gusting ( .) you [never seen them]
21 S [(hhhhhhhhh) ]
22 (HHHhhhhhhhh)
23 T but they 'arched their backs ( .) if they 'do that to 'make themselves give the
24 im'pression they're 'bigger than [they ] are
25 S [. mmhm]
26 T (0.9) it's got 'everything to do with , size ( .) if they 'look 'bigger than they , are
27 S (. ) mmhm (1.3) and 'show all your , teeth (0.9) like , that =
28 T = 'yeh:
29 S ( .) and [really 'scare]
31 S [(hhhhhhhhhhhhh)]
32 T (1.1) and , chased them

Since the two sections from which Tml Isc and Tml Isd are taken differ to such an extent, it may be presumed that Tom's discourse relevant questions do not arise simply as a function of the structure of talk. They may occur during co-operative sequences of discourse as well as in non-co-operative sequences characterised by two-part, question-minimal-response units. However, Tml Isc is distinct from Tom's other questions in that it is the only example
of a discourse relevant question which does not have locative content. Further, Tm11c is the only example of a question which does not require a yes/no response: it is more syntactically complex than the others, in that it is composed of a wh-question followed by an elliptical alternative question. Thus, it may be the case that, while questions are rare in Tom's discourse, they can occur in talk sequences of any type. However, when the talk structure is more co-operative, as is the case in Tm12, the questions which arise may have greater flexibility in terms of both syntax and lexical content.

8.5.3. Topic in relation to sentence and discourse level structural similarity
The issue of topic in relation to structure at discourse and sentence level in Tom's talk is interesting from another perspective. Tom's transcripts contain examples of the same topic discussed on different occasions, thereby allowing us to compare how both talk and syntax can be shaped by topic.

Tm13a (Transcription One: 24.6.96: Appendix 6.1.)

```plaintext
T (. ) 'nineteen seventeen (. ) they 'fought on the (. ) just as 'well (. ) cos after the
  'Russian Revo_lution we'd 'lost (. ) 'Russia on our 'side[e ] fas t
S [.mm]hm
T (0.6) and we just that moment (. ) thank 'goodness we had the (. ) A'mericans (.)
made up for it (1.5) that 'Pershing _missile which is 'name now (0.7) is 'named after
a first world war general (. ) he was the co'mmanding chief in the first world war
( . )[they make now]
S [ ↑oh, ri:ght ↑ ]
T (0.8) 'Pershing (. ) 'they're called'
S (0.6) ↑ oh [, did they]↑
```

Tm13b (Transcription Two: 1.7.96: Appendix 6.2.)

```plaintext
T (0.8) and so 'Russia 'France and 'Britain had 'fought against 'Germany and 'Turkey
(0.6) 'suddenly became the re_verse of one another (. ) the only 'difference is that
A'merica was on our 'side in the 'first world 'war for a bit
S (. ),ri:ght
T (0.8) didn' 'we'd 'never 'been a 'European 'war with A'merica on
our 'side be[fore ]
S [ 'ri:: g]ht
T (1.2) and erm (. ) that 'Pershing miss ile what's to 'talk about ,now =
S =mmh[m] [ is]
T named after the 'first world 'war Com_mander
S (. )↑ oh, ri:ght ↑
```
The origins of the name “Pershing missile” is the subject under discussion in Tm13. As can be seen, there is some degree of syntactic similarity between the two. Pershing missiles are introduced similarly by complex subjects:

Tm13ai
that, Pershing missile which is ‘name, now

Tm13bi
that ‘Pershing miss’ile what’s to ‘talk about, now

There is similarity of both lexis and structure: both include the head noun “Pershing missile”, premodified by the same demonstrative determiner “that”, and postmodified by a relative clause. Both relative clauses contain the same adverbial “now” in final position, and both include syntactic errors in the relative clause verb phrase.

The predicate is resumed after a pause in Tm13a and a latched back channel utterance in Tm13b:

Tm13a ii
is ‘named after a first world war general

Tm13bii
[ is] named after the ‘first world ‘war ‘commander

The similarity between verb phrases and complements above is such that only the determiner and head noun vary.

Finally, both sentences are followed up by an extra turn component which functions to give more information about the commander/general:

Tm13a iii
‘he was the commanding, chief in the first world war

Tm13biii
he was the Com’mander in ‘Chief of the US ‘army from ‘nineteen ‘seventeen

There is lexical and syntactic similarity between the two constructions: although the complement noun phrase in Tm13biii includes a postmodifying prepositional phrase, both utterances have SVCA structure, and both have a “command” derivative and “chief” as part of the head of the noun phrase or immediately next to it.

Thus, there is clearly lexical and syntactic similarity in Tom’s talk when the same topic is mentioned. The three turn constituents shown at Tm13i, Tm13ii and Tm13iii also share identity at a functional level in that the subject noun phrase is used to introduce the topic, the
predicate imparts the information, which is added to by the final sentence at Tml1iiii. Further, the three turn constituents are overtly separated in both transcriptions. Interestingly the constituents in Tml1b, the later transcription, are separated by back channel-type utterances ("mmhm" at line 9) or supportive comments ("oh right" at line 12), whereas in Tml1a, they are separated by pauses.

In both cases, the topic of the Pershing missile emerges after a similar sequence of topics. Tml1a is preceded by topics as follows:
S brings up the topic of the second world war (Transcription One: line 297)
T takes up the difference between the first and second wars (Transcription One: line 299 ->)
T continues with the difference in America’s involvement in both wars
T mentions loss of Russia on the side of the Allies
Pershing missile mentioned.

While Tml1b is preceded by topics as shown below:
S introduces topic of Germany
T mentions climate and size and other features of Germany
T mentions the two World Wars
T continues by mentioning the difference between the two wars, listing different countries’ involvement in each
T mentions America’s involvement
Pershing missile mentioned.

Preceding topic sequence, syntax and lexis therefore show a high degree of similarity within Tom’s talk on the same topic. Since a major focus of interest here is repetitiveness within autistic language, it seems that on the basis of the above there is good reason to expect that structural and lexical similarity may exist elsewhere in the transcripts. The use of similar syntax and lexis to discuss familiar topics has also been noted in non-autistic talk as a means of enhancing fluency (Pawley & Hodgetts Syder, 1983). The section below explores further the types of repetitiveness that have been noted.

8.6. Repetition
Repetition exists on many levels in Tom’s talk. We have seen above that Tom has a tendency to use similar utterances as responses to questions when he is unwilling to participate in the current talk. Tml1a, and Tml3 show typical uses of “(I) can’t/don’t remember” and “I don’t know”. That these utterances function as indicators of discourse avoidance rather than having a simple communicative function, is indicated in a number of ways. As mentioned above, they often occur with peculiar voice quality, reduced volume and reduced intonation contour. Sequences such as that shown in Tml14 below also indicate that there is something other than a direct relationship between form and meaning in these utterances.
Tm14

1 S (66.3) what else have you done today Tom
2 T (.) 'don't know' 
3 S (24.1) have you done anything else (.) to day
4 T (0.8) 'can't re member'
5 S (0.8) 'no'
6 T (0.7) 'don't remember' 
7 S (30.7) you can make other things with those (.) d'you ever make (.) something just (.) out of your head (.) on there
8 T (1.4) 'don't think so' 

The content of all of Tom's turns above seems only minimally related to intended meaning. In particular, Tm14 lines 6 and line 9 sit uneasily in the sequential context. On other occasions however, it may well be the case that Tom has genuinely forgotten something, as in Tm 15 below:

Tm 15

S (13.9) have you 'read any stuff since I saw [you] last have you 'read any' books (.)
T [éh]
S since I 'saw you last
T (0.7) n' I don't re member

There is also a fair degree of flexibility in Tom's discourse-avoiding utterances. As well as the forms mentioned in Tm14 and 15, Tom also uses truncated utterances (dealt with below in relation to syntax), one word minimal responses ("yes" and "no") and on occasions he clearly sequentially relates his discourse avoiders:

Tm 15a

S (23.5) d'you see 'anything on' telly this , weekend
T (1.0) 'I can't re member I said'

Thus, while Tom seems to favour particular utterances in order to indicate a disinclination to talk, he is not inflexible in this. Rather than being limited to a single invariable form, Tom has a range of available utterances to fulfill the same function. Neither do particular utterances always occur as identical forms (Tm3a and Tm14 line 4; Tm14 line 6 and Tm 15). However, almost always the forms in question are marked by the prosodic features mentioned above. Indeed, these prosodic features co-occur more frequently with the disinclination-to-converse-function than does a given form. Since this is the case, it is almost certainly useful to think of repetitiveness in these environments as having a prosodic dimension. Such a dimension has often been described in the field of autistic talk (for example, by Local & Wootton, 1995; Wootton, 1999) although its occurrence in relation to Asperger's syndrome has not to my knowledge been reported.
On this basis then, it may be presumed that repetitiveness in Tom’s talk is less rigid than that which we have seen in the conversation of the less able study participants. Nevertheless, it does exist and, as with the other participants, does so on a variety of levels. Tm16 below illustrates some of these.

**Tm16**

(2.1) .hh a ‘strange unfortunate’ *thing* what ’happened to Van’Gogh was .hhh he ‘painted millions of (.).

*paintings* (.). ’sold only one in his life (.). ’now that he’s ‘dead they’re ’bloody’ masterpieces [those things] *fast*

(0.8) I, know (.). [it’s ’crazy]

(0.8) I, know (.). [people ] (.). w- (.).

‘you know (.),’look upon them as: e:rm (1.0) at the ‘time they only ’saw’ one ‘now (1.4) ’now that e- (.).’ he’s ‘dead (1.0) and he’s been ‘dead for ’several centuries they ’think they’re con ’sidered very very valuable in deed (.). ’if you ‘slash a Van Gogh you had to pay billions of ‘pounds and [they’re ] *fast*’

[ ‘yeah’ ]

very valuable (.). you [know (.). ] pro’tect like mad

[ ,mmhm ]

(1.6)’they become ac’cepted later on (.).’it’s ‘no ‘good for being ac’cepted later] on ‘ though’

[ ‘yeah’ ]

(1.6)’they always ‘say that ‘appens to ‘artists, don’t they =’

[ ‘yeah’ ]

Lexical repetition is in evidence here on line 2 where “*painted*” and “*paintings*” occur within a couple of words of each other. Similar incidences occur throughout. Lines 2 and 4 in Tm17 show further examples (”*everybody just doesn’t want it*” and “*I ‘guess nobody wants it*”). The interesting feature with these types of lexical repetition, is that there is morphological variation within the repeated items. Items are also repeated without variation (for example, “*naturally*” is repeated unvaried in Tm17 on line 2). However, lexical repetition with morphological variation neatly illustrates the dichotomy between formulaicity and productivity in Tom’s talk, which we have seen to a certain extent above in relation to discourse-avoiding utterances.

**Tm17**

(.) you ,know (.). cos y’all this (.). wasted ‘lives ‘trying to ‘fight a gainst it and ‘naturally of its own accord ‘everybody just doesn’t want it ‘naturally ‘anyway it’s just sort of a (.).hhhh (.). a ‘matter of ‘voting it out of (0.6) [’office ] (.). I ‘guess ‘nobody ‘wants it

Lexical repetition, such as in the “*painted/paintings*” example above, is also interesting in another respect, in that there is a possibility that it arises out of a disinclination to use proforms. For example, we don’t often talk about someone having “*painted a painting*”.
More acceptable would be to talk about "doing a painting". Proforms enable us to avoid this type of constituent repetition. Tom is certainly able to use nominal proforms: at line 6 in Tm16 "one" is used instead of "painting". However, proforms could have been used at line 7 (to avoid repetition of the complement adjective "dead" by replacing the second token with "so"), and again at line 13 (in place of the second token of "accepted": the complete verb phrase and adverbial could be replaced with a proform such as "that", although Tom’s meaning is not particularly clear here).

On the basis of the above, it may be concluded that Tom’s suggested difficulty with proforms is not absolute, but confined to more complex proform constructions. Such an explanation would accord with the difficulty Tom has with complex syntax especially at sentence level as detailed below. An alternative explanation of Tm16 is that Tom simply may not be able to disinhibit repetition of lexical items. Undoubtedly this is the explanation behind some of Tom’s repetitions. "naturally" at line 2 in Tm17 is a likely candidate for an inability-to-disinhibit explanation. This second token seems superfluous to the construction in which it is located. In particular, here, "naturally" does not have special emphasis indicated by tone movement or proximal micropauses. Had these been present, then "naturally" could have been understood to have a discourse function apart from a merely content-related one. As it stands however, the item seems to have little if any relevance at the productive level.

Whilst the term ‘lexical’ has been used as a descriptor for certain types of repetition, the scope of this term should be understood to include repetition of items above the word level. For instance, "now that he’s dead" at lines 2 and 7 in Tm16 are clearly repetitive. Since there is variation of prosody and repair between the two tokens, they are unlikely to be echolalia-like in nature. However, both tokens are used as the crucial link between declarative statements in a causal argument; that is, they are both used in an identical discourse context. This can be clarified by extracting the relevant sequences, as is done in Tm16i below.

**Tm16i**

**Token 1 "now that he's dead"**

Van Gogh painted millions of paintings
he sold only one in his life
*now that he's dead*
they’re masterpieces

**Token 2 "now that he's dead"**

at the time they only saw one
*now that he's dead*
they’re considered very valuable

The token “now that he’s dead” is not intrinsically restricted to occurring between statements. It could easily be placed finally in a sequence. This type of repetitiveness seems strongly linked to that which occurs in relation to the topic-related sequences discussed above, although it must be remembered that, in the present example, the local context may well be exerting influence.
Local context does indeed seem to play a significant role in repetitive lexis of this type. Tm16 line 13 also has an example of two lexically identical tokens with varied prosody ("accepted later on"). Local influence can of course extend beyond a single turn. Tm17 occurs 4 lines subsequent to Tm17a and 13 lines before Tm17b (Transcription Two: line 183-209).

**Tm17**

1. You know cos y'all this wasted lives trying to fight against it and naturally of its own accord everybody just doesn't want it naturally anyway it's just sort of a hhhh a matter of voting it out of (0.6) "office" (.) I 'guess nobody wants it

**Tm17a**

[ it's] strange to think all the efforts the Americans put militarily into trying to get rid of Communism hhhh when they find it's just collapsed naturally of its own accord anyhow =

**Tm17b**

(1.0) you know it {s} doesn't make sense all the blood spilt over trying to strength (1.0) 'left wingism' which is naturally collapsed of its own accord

**S** [mmhm]

The "naturally of its own accord" sequence occurs in all three extracts with slight variations:

**Tm17i**

naturally of its own accord

it's just collapsed naturally of its own accord

which is naturally collapsed of its own accord

The core components of the utterance are "of its own accord" with "naturally" preceding. Note that the sequence is potentially interruptible with regard to "naturally", hence it cannot be considered to be a core component. "collapsed" also has a tendency to occur alongside the core utterance. Hence " of its own accord" begins to look like a frame (Hickey, 1993). It should further be noted that, while the phrase occurs in relation to the same topic, the wider syntactic context differs between all three mentions. Prosodically the utterances vary also. A further sequence is also noted as recurring with relation to the same topic. Tom's intervening turn between Tm17 and Tm17b is shown at Tm18 below:

**Tm18**

... hhh [so it doesn't make any 'sense']
A similar sequence occurs at line 1 in Tm17b. Once again, the repetition is not lexically or prosodically faithful. However, as with the Van Gogh examples, "it doesn't make any sense" occurs in a similar discourse context on both occasions of use (note S's turn is omitted from Tml18i for the purposes of clarification):

Tm18i

1. hhh [so it doesn't make any 'sense']
2. (. ) you know (. ) cos y'all this (. ) wasted lives
3. trying to 'fight against it
4. and 'naturally of its own accord
5. 'everybody just doesn't want it

Tm18ii

(.) it {s} doesn't make sense
(.) all the 'blood (. ) 'spilt
over 'trying to 'strength (1.0) 'left
'wings[m (. ) ]
which is 'naturally (. ) collapsed of its
own ac,cord

The repetitive sequence occurs as a discourse preamble, the function of which is to evaluate the upcoming turn components. Further syntactic similarities can be seen to exist between Tm18i and ii. The second component in both cases includes a noun phrase which has the same pre-determiner "all". Both sequences at Tm18i2 and Tm18ii2 also have a past tense verb form immediately next to the noun phrase head ("lives" and "blood"). The third component (Tm18i3 and Tm18ii3) makes use of similar catenative verb sequences with progressive inflection. The fourth components have been discussed above.

At a semantic level, the imagery that is used in both sequences is also comparable. In both, Communism is described as if it were a combatant, while there is also a clear similarity between the metaphorical senses of blood being spilt and lives wasted.

Once again then, we see that while Tim's repetitiveness is far from inflexible, it nevertheless characterises his talk to a significant degree. Both topic and local influence seem to exert an influence over his lexical and syntactic repetitiveness, as well as that at the discourse level. Some of this repetition can be explained by the avoidance of proforms (Tm19 below shows further examples of this) or the reliance on similar constructions to perform the same discourse function, as discussed above with relation to the signifiers of a disinclination to converse. The extent to which repetitive utterances are rigid or inflexible is much less than that seen with the research participants studied thus far, and has similarities to types of normal uses of repetition (Pawley & Hodgetts Syder, 1983). Whilst prosodic features reliably signify a disinclination to talk, this is not accompanied by similarly consistent lexical or syntactic repetition. Similarly, when syntax or lexis is repeated (as in the utterances below for example), prosodic features do not necessarily follow suit.

Tm19a

T (1.1) no they were 'penetrating in the 'area in the [hope ] they'd 'leave the 'area
The repetition of “Japan” in Tm 19b above suggests that at least in part, Tom’s repetitiveness stems from an inability to disinhibit repetition of items; that is, once an item has been produced it is likely to be repeated in the local environment. Such an explanation would then also pertain to sequences such as those exemplified in Tm16 and Tm17 above, where discourse, syntactic and lexical repetition also have a clear local basis. However, sequences such as those dealt with in Tm 13, in which the topic could be said to be the repetitive inspiration, suggest the operation of a different mechanism altogether.

The discussion of repetitiveness so far has not included other-modelled sequences. In fact, these are relatively rare in the transcripts. Tm20 below gives examples.

Tm20a
S (2.9) 'any ducks
T (0.9) 'no ducks'  

Tm20b
S (.) 'no(1.9) what they, like 'down 'there (.) they all 'right
T (.) 'all right'  

Tm20c
S (.) ri::ght (1.5) and what, happened to him
T (1.3) I don't know ,wh' at 'happened to him ' 

Tm20d
S (2.8) 'who did we 'sign the treaty with
T (2.3) e'ventually we 'signed a treaty with Ver'sailles in 'nineteen nineteen

Tm20e
S (0.8) 'ri::ght (6.6) what about ,England (.) are `we 'rich (.) or [ 'poor]
T  [we:'] re (1.8)

Tm20f
S (.) 'mmhm (2.5) d'you 'watch anything 'on at the mômeht that's 'funny
T (0.8) 'don't think there" is anything 'funny on at the 'moment"
Since the above represent the entirety of other modelled repetitive utterances in the first two transcriptions, it is clear that Tom is far more likely to use his own prior talk as a model than he is to use another's. In fact, the utterances above do not seem particularly deviant: the sequences in which they occur are not dissimilar to those in which we would expect non-autistic repetition to occur (Johnstone, 1994). All but two of the utterances involve some lexical or syntactic reworking of the model: only Tm20b and Tm20g are in any way reminiscent of echolalia, in that they involve whole or part repetition of an other prior-utterance. Prosodic features are not repeated in any of the utterances, although Tm20b and Tm20g could be considered to have flattened contours. It should be noted further, that prosodically speaking, and with the exception of Tm20d and Tm20e, all of the other-modelled utterances above are marked in some way. For example, Tm20a and Tm20b are uttered at an elevated rate, while Tm20h, Tm20g, Tm20f and Tm20c are all low volume.

Hence, while repetition certainly does exist in Tom's language, its dimensions are far more varied and its realisations far more complex than with any of the other participants considered thus far. Other-modelling has featured to some extent with all other participants. Its comparative rarity in Tom's talk suggests a relatively sophisticated language user. Further, we have seen that there seem to be two distinct mechanisms at work underpinning Tom's repetitiveness: one that results in at least a partial inability to disinhibit repetition within local contexts and one which appears to have a basis in topic and which accords with more normal uses of repetition.

8.7. Syntax
8.7.1. Syntactic errors: Noun phrases
Tom's syntax is ostensibly competent. Noun phrases occur with pre- and post-modification in subject, object and complement slots and as components of prepositional phrases. Tm21 illustrates this.

Tm21a
S: NP (post-modifying relative clause)
the person who built the original Ger- (.) 'Berlin Wall's been put in prison for treason
Noun phrases can, then, be complex. Errors may also occur. Typically, these are in relation to pronouns and may be errors of omission, person, number or transposition. Errors in determiners within noun phrases may also occur. Examples of typical noun phrase errors are listed in Tm22 below.

Tm22ai
wrong pronoun - number, person

... and he didn't give em any warning to disperse cos it were (. ) the re (. ) un - (. ) lawfully (. ) a ' assembled' anyhow

Target: they

Tm22aii

... and they 'whipped those who re fused' tied to a 'whipping post' they was meant to re 'sign from the army (1.2) and he 'died in retirement in 'ninetyseven

Target: he

Tm 22b
transposed pronouns

... the' willingness to people to 'back it to help it to 'do what it wants them to 'do=

Target: to do what they want it to do

Tm 22c
pronoun omission (*)

in geography (*) have to tell about ' which ' countries have rainforests

Target: you/one

Tm22d
unclear referent - overuse of pronoun
(1.0) un'less 'everybody helps it do its 'thing it won't suc'ce de any way it could be Bosnia: the Congo: or [ . ] anyway it 'has . . all these or in the 'middle_east( . ) what 'makes it

Tm22e
article wrongly placed in complement adjectival phrase
T = well that's a , silly . . to government to make itself deliberately un, popular=

Tm22f
plural determiner with singular head
T (1.2) well they wanted independence . . these 'country . . from France

Tm22g
determiner omission (*)
T .... just a 'bit 'bigger (1.1) than (*) 'back (. ) 'garden 'one

Tm22h
plurality error
T .... (. ) she did 'actually 'worse than a lot of ® man , prime minister wo[uld do ]

Some of these errors may reasonably stem from difficulties in the cohesion of extended discourse (for example, Tm22a, Tm22b, Tm22d, Tm22f, Tm22h). All of them involve incorrect or inaccurate anaphoric reference. Tm22aii, Tm22b and Tm22d may also have perseveration as a further explanation, while Tm22f and Tm22h are agreement errors and as such may be regarded as a particular subtype of cohesion errors.

Of the remaining errors, Tm22c and Tm22g are simple errors of omission. These omissions superficially resemble Tom's truncations (that is, omissions of early occurring clausal elements). However, while Tom undoubtedly does truncate certain utterances, Tm22c and Tm22g do not fit into the usually occurring pattern of this feature. Firstly, while both determiners (Tm22g) and subject pronouns (Tm22c) can and often do occur early in a sentence, in neither of the above is this the case: Tm22g's omission is the first element of a dependent clause while Tm22c's omitted constituent is preceded by an adverbial phrase. Secondly, both omissions occur midway through a turn, while truncation tends to be associated with first-mentioned turn constituents.

By putting Tm22c into context we can see that this telegraphese is not limited to early occurring items at either clause or sentence level:
Tm22cc

1 (0.9) no (0.9) nobody ‘did (2.5) but ’say (.) is just (.) ‘LEARNING something for
2
3 ‘interesting but (1.2) in geography have to tell about ‘which ’countries have
4
5 though the trouble is (0.9) at the same time as I’m doing it the ‘very ‘second the
6

In the first three lines there are omissions of three grammatical elements: preposition “in”
and dummy subject “it” on line 2, and the pronoun “you” on line 3. In addition, there is a
question of tense consistency in the sequence. Tom is relating an incident from his past, yet
uses the present tense on line 3 (“have”) reverting to the past on line 4 (“had”), before
resuming use of the present on lines 5 and 6 (“is”, “I’m doing”, “it’s”). Tom’s
omissions do not seem, then, to stem from problems with noun phrases, but rather to have a
more general significance. Since the turn is self-initiated and continues a topic on which
Tom seems keen to expatiate, the difficulty that we see in Tm22cc may well proceed from
the attempt to match precise communicative intent with spontaneous, productive output.
Temporal cohesion and relational items (“in”, “it”, “you”) appear to be particularly
fragile in this sequence. The former of these is discourse related and represents a possible
difficulty in discourse planning and coherence, while the latter suggests a feature associated
with developmental behaviour: that of omission of functional items. Such omissions do not
necessarily cause communicative difficulty since by their nature functional items have low
semantic load and may be interpretable in context. It has been suggested that such items are
omitted due to their lack of phonetic salience; that is, they are not stressed and have low
intensity (Fletcher & Ingham, 1995).

The remaining noun phrase error is Tm22e. While all of the above errors are comparable to
those made developmentally, this incorrect assignment of an article to an adjectival phrase is
not. Instead, the suggestion here is of a possible blend between competing structures, such
as can be seen in relation to Tm24di and Tm26c and Tm26e below.

Tom’s noun phrase errors are, then, not simply explicable in the context of noun phrases.
All of them (with the possible exception of those involving agreement within the noun
phrase) require reference to the surrounding discourse as a basis for explanation. It is
sometimes not possible to determine whether an error has arisen due to a lack of facility
with cohesive devices or from the tendency to perseverate. Further, there is a clear identity
between Tom’s noun phrase errors and those that typically occur in children’s language,
suggesting that Tom’s errors may be indicative of a limited ability to use his grammatical
knowledge (Fletcher & Ingham, 1995: 610). Such errors are not regarded as proceeding
from a qualitatively distinct linguistic competence, rather a restricted, but essentially similar
system, to that of non-impaired language users.

8.7.2. Syntactic errors: Verb phrases
Just as Tom is able to construct complex noun phrases so his verb phrases can be indicative
of a relatively sophisticated degree of competency. Tm23 exemplifies the range of this
ability.

Tm23a
catenative construction (1) and non-finite to-infinitive clause as direct object (2)

T they managed to persuade Donald Hampton to get some cigarettes for them

Tm23b
verb agreement between clauses; perfective aspect with modal verbs

T if we'd have been 'able to use it I wouldn't have minded using it (1.2)

Tom's use of such structures suggests a well-developed linguistic ability. However, errors
in verb phrases are far more common than is the case with noun phrases. A sample of
Tom's verb phrase errors is shown below.

Tm24a: Tense Errors
Tm24ai - contracted auxiliary - present time indicated rather than past

.(.) it's launched into space (.). it was a satellite

Target: It was launched into space

Tm24a(ii) - contracted copula - present time indicated rather than past

(0.8) cos there's (0.7) civil unrest in Amritsa:

Target: there was civil unrest in Amritsa

Tm24a(iii) - present time indicated rather than past - no agreement between clauses

(.). but it 'happened' (1.2) but just cos we (.). 'do a 'good thing in that respect

Target: we did a good thing

Tm24a(iv) - copula - present time indicated rather than past

.... which is. frightened he might get 'hung

Target: who was frightened

Tm24av - lexical verb - not marked for tense - present time indicated rather than
past

'really (0.7) 'just' like 'walk' all over the blumming place =

Target: walked all over
Tm24avi - lexical verb - verb phrase marked twice for tense (also catenative)

\[ T \quad ... [(.) and (.) helped get a bit of (0.7) territory back to Japan (.) China \]

Target: and helped get a bit of territory

Tm24avii - tense agreement between clauses

\[ T \quad ... if you 'slash' a Van Gogh you had to pay billions of pounds \]

Target: if you slash a Van Gogh you have to pay billions of pounds

Tm24b: Auxiliary Errors

Tm24bi - omission of auxiliary (*)

\[ T \quad (.) they (*) having quite a (0.6) an' empire \]

Target: they were having quite an empire

Tm24biii - omission of auxiliary

\[ T \quad (.) Spanish and Spain and Portugal (*) quarreling over South America \]

Target: Spain and Portugal were quarreling over South America

Tm24biii - omission of auxiliary and lexical verb (Head of VP) (*)

\[ T \quad ... Margaret's Thatcher (*) gonna (*) immediate enquiry into the 'number of 'jobless' blacks \]

Target: Margaret Thatcher's going to launch an immediate enquiry

Tm24c: Catenative Errors

Tm24ci - "and" substituted for "to"

\[ T \quad = so they 'tried (.) and 'send the 'people \]

Target: so they tried to send the people

Tm24d: Modal and Tense Errors

Tm24di

modal and adverb "before" do not correspond; problem with indicating future time; progressive aspect

\[ T \quad ... what had 'never' ever happened in the 'whole' history of the world and would I 'never' ever gonna happen be fore \]

Target: unclear

Tm24dii

modal; future time; progressive and perfective aspect

\[ T \quad ... what 'never' happened be for:re .hhh an 'never' happened in the past and wasn't even gonna be (.) 'foreseen to be 'able to be happen \]

Target: unclear
Many of the above errors are, as with noun phrases, similar to developmental ones. Tm24a suggest a problem with marking tense, such that the more simple present tense is indicated rather than the past. Tom's tendency to contract the auxiliary (Tm24ai and Tm24a(ii) in verb phrases where the intended reference is past rather than present may also be indicative of a problem marking tense. Alternatively, Tom's liking for truncation may have extended to the contraction of auxiliary “be” in both past and present. Auxiliaries are also problematic in Tm24b, and in Tm24avii there is no tense agreement between clauses. These errors are further suggestive of developmental errors.

Tm24avi and Tm24d illustrate problems with complex verb phrases. Tm24avi as double tense marking is a fairly straightforward error, again, suggestive of developmental errors. While the target of Tm24di is not clear, a suggestion may be that the realised utterance is a blend of two competing targets occurring alongside a lexical error where “before” is substituted for “again”. The competing verb phrases are:

was never going to happen
would never happen

Blending may explain errors elsewhere in Tom’s transcripts (see below). The target of Tm24dii is less clear. The problematic verb phrase is very complex: Tom seems to be aiming to construct a future progressive passive. In fact, the phrase is acceptable, though clumsy, if the final “be” is omitted. This error, along with Tm24avi, may then be explained in terms of perseverative operations on the verb phrase. The former represents an attempt to mark the passive twice; the latter an attempt to double mark past tense.

The passive causes Tom problems elsewhere:

Tm24e: Passive Error
T there was this ‘bridge between them and the Rhine ..... (.) which was trying to be’ held

Here the verb “trying” needs an animate agent which “this bridge...” clearly isn’t. The construction is far more acceptable without “trying”, or with active voice and use of a subject pronoun (“which was being held” or “which they were trying to hold”). Again, the possibility of a blend of two competing structures suggests itself.

Aspect Errors
Tm24b above illustrates a tendency to omit the auxiliary in progressive constructions. Tom sometimes has a problem with perfective aspect. Usually these constructions are correct (Tm25a) although, on occasion, confusion exists between past perfective and simple past tense forms (Tm25b and Tm25c).
(1.9) it was a 'great 'shock (0.8) when I heard the 'news that he’d ’lost his _yacht

Tm25b - past perfective substituted for -ed form

(.) ’I don’t know’ (3.3) .hhh (.) ’somebody had ’gone to see this 'William’ Morris
‘expedition (.) have you _heard of ’that
Target: “went” (simple past)

Tm25c - past perfective substituted for -ed form

[be ] cause they wouldn’t ’leave (.) a piece of ‘Asia called
Man,chu:ria they’d declared war on (.), Russia
Target: “declared” (simple past)

8.7.3. Syntactic errors: Clause-combining

As noted above, tenses do not always agree between clauses (Tm24avii). Tom also often
appears to use the wrong subordinator when linking clauses:

Tm26a

[they cjould unless you
would have thought they’d discovered’ Africa before South America (.)
Target: but

Tm26b

[ has to ] be a ‘con’certyd (0.9) has to be a con’certyd world’ effort (.)]un[less
it’s ° pointless =
Target: otherwise

Tm26c

(0.8) it’s like the un’ited’ nations is ‘finding it can only ’do as much as ‘whatever the
(.) members want it to ’do =
Target: ø

Tm26d

(0.6) and another ‘terrible ’thing’ that ’happened (.) the ‘man who in’vented, gas
during the ’first war ’got the ’Nobel Prize for, chemistry (. ) which is ’frightened he
might get ’hung (.)
Target: who

Tm26e

but they ’arched their, backs (. ) if they ’do that to ’make themselves give the
impression they’re ‘bigger than [they _are]
Target: ø
Tom’s use of subordinators and co-ordinators in a 6,000 word transcription (Transcription Two: 1.7.96) is shown below.

**TT: ii - Co-ordinators in Tom’s talk - Transcription One**

<table>
<thead>
<tr>
<th>co-ordinators (n=50)</th>
<th>and</th>
<th>but</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35 (70%)</td>
<td>15 (30%)</td>
</tr>
</tbody>
</table>

**TT: iii - Subordinators in Tom’s talk - Transcription One**

<table>
<thead>
<tr>
<th>subordinators (n=32)</th>
<th>because</th>
<th>unless</th>
<th>where</th>
<th>if</th>
<th>so</th>
</tr>
</thead>
<tbody>
<tr>
<td>correct uses</td>
<td>9 (28%)</td>
<td>4 (12.5%)</td>
<td>1 (3.125%)</td>
<td>4 (12.5%)</td>
<td>5 (15.625%)</td>
</tr>
<tr>
<td>incorrect uses</td>
<td>2 (6.25%)</td>
<td>2 (6.25%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

rather than, which, though, when, like used once each (all correct)

**TT: iv - Relative pronouns in relative clauses - Transcription One**

<table>
<thead>
<tr>
<th>Relative pronouns (n=15)</th>
<th>which</th>
<th>that</th>
<th>who</th>
<th>where</th>
<th>what</th>
</tr>
</thead>
<tbody>
<tr>
<td>correct uses</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>incorrect uses</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Tom has an evident preference for simple clause combining. “and”, “but” and “because” are used most frequently and always without error. While other strategies of clause combination are attempted by Tom, these often result in errors. Tm26a and Tm26b as examples indicate a straightforward misunderstanding of the meaning of the subordinator in question: Tom seems to have confused “unless” with “otherwise”. However, Tm26c and Tm26e are suggestive of blending. Likely targets for the two utterances are given below.

**Tm26ci**

*it can only do whatever the members want it to do*

**Tm26cii**

*it can only do as much as the members want it to do*

**Tm26ei**

*they do that to make themselves bigger than they are*

**Tm26eii**

*if they do that they give the impression they’re bigger than they are*

Clause combining may be avoided altogether. Tm26f is a typical example of an extended turn.
Here Tom sounds as if he is listing features of the house where his parents live rather than presenting a cohesive description.

8.7.4. Syntactic errors: Prepositions

Tom’s use of prepositions is also sometimes errorful.

Tm27a

T well that’s a silly (.) to government to make itself deliberately unpopular=

Target: for

Tm27b

T succeed is the- (.) the willingness to people to back it to help it to do what it wants them to do=

Target: of

Tm27c (omission (*))

T = .hh you’d ‘stand out (*) a ‘sore thumb an (.)

Target: like

Tm27d

T (.) but we don’t know ‘where to ‘put the ‘nuclear waste (.) no body wants it on their back (.), garden (.)

Target: in

In the same 6000 word transcription (inclusive of researcher’s talk) the breakdown of correctly used prepositions is as shown in TT: v below.
TT: v - Prepositions in Transcription One

<table>
<thead>
<tr>
<th>prepositions</th>
<th>in</th>
<th>of</th>
<th>to/with</th>
<th>at/for</th>
<th>on</th>
<th>against</th>
<th>from</th>
<th>before/by</th>
<th>between/over</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of total prepositions</td>
<td>32%</td>
<td>15%</td>
<td>9% each</td>
<td>6% each</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>2% each</td>
<td>1% each</td>
</tr>
</tbody>
</table>

"in" is then used on nearly a third of occasions of use of prepositions. Just under half of these uses (49%) are temporal, while 34% are locative. The remaining uses are idiomatic or metaphorical (for example, "in the marxist tradition" and "in the hope"). "in" is cross-linguistically early in acquisition possibly reflecting the relative simplicity of its cognitive content (Hickmann, 1995: 209), although its use as an indicator of anything other than locative relations is not discussed.

Tom's preposition errors can then be broken down into errors of omission (Tm27c) and errors of meaning (Tm27a, b and d). Tm27a and Tm27b may result from anticipatory planning errors: both involve high frequency targets and outputs, and are in what may be described as heavily biasing environments. This is particularly so for Tm27b. Tm27d may have arisen due to the phonological similarity between target and output "in" and "on".

8.7.5. Syntactic errors: Clause structure

While Tom's clauses may contain errors, these are not usually so pervasive as to impede comprehension. Utterances such as Tm28 are infrequent. It occurs in the context of the vocabulary section of the WAIS-R interview.

Tm28

S (0.6) don't 'know what that "means (0.8) a; kay (.). hhhhhh ho:::w about (.) ponder (.) what does 'ponder =

T = the 'thinking {amaondtn a} (.) a 'problem (1.3) 'ponder a 'problem at articles like 'ponder the 'problem of the (.) 'next' world (.) from the (.) 'sinking 'state of mind as to

Here, the metalinguistic task of providing a definition for the cognitive verb "ponder" has evidently taxed Tom's ability to a considerable degree, as is suggested by the frequent pauses. Such utterances are interesting, in that we are able to see how Tom constructs a turn, the content of which must be worked out 'on-line'. Despite the promising start with "thinking", Tom clearly has difficulty in expressing his intended meaning.
The concept of "thinking" is a semantically sensible place to begin. However, Tom's realisation of the concept as a noun phrase leads him into a dead end. Since "ponder" is a verb, to begin its definition with a noun phrase is bound to be a troublesome strategy. In fact, during this section of the WAIS-R interview, all of Tom's successful definitions of verbs begin with, generally non-finite, verb phrases (as with Tm29 below). Indeed this pattern extends beyond verbs. Successful definitions of nouns and adjectives also have an almost exclusive tendency to have nouns and adjectives as their first item. Tom's attempt at defining "ponder" is then problematic from the start. He next produces a collocatively related item: the object argument "problem". The remainder of Tom's attempt at definition centres around this collocation ("ponder a problem"), and involves the postmodification of "problem". The meaning of "at articles" is not clear; neither does "from the sinking state of mind" have any easily apparent relevance. Syntactically speaking, Tom's utterance has no cohesive clause structure. While phrases have acceptable internal structure, they are not linked in such a way as to form a higher level unit. Such a lack of interphrasal cohesion is not necessarily a source of difficulty in conversation. Here, however, there is a real problem in that without such cohesion, meaning is adversely affected.

A similar type of utterance is produced a few turns earlier when Tom is asked to define "terminate". Here, however, the word is successfully defined.

Tm29

1 T (. ) to 'finish from (2.0) in it's com plete.)liness (1.4) to terminate (.) to 'finish (. )
2 ex 'actly com pletely (. ) like a [. bus] term inus (. ) at a 'terminus it doesn't (. ) go
3 S ' [yes ]'
4 T anymo xe [(1.0)] from the (0.6) from the 'moving state or the usage 'state
5 S ' [no ]'
6 T (.) and terminate the (3.2) 'life as return to 'life

Once more, phrases are not combined into clauses, with the exception of the section preceding the one second pause and overlap in line 4. The difficulty begins on line 4 of the sequence, at the point at which Tom reverts to using noun phrases to add to his, what has already been judged to be acceptable, definition. Apart from leading Tom into expressive and communicative difficulty, these noun phrases give the utterance a pedantic feel. Both the disjointed intraclausal structure and the lexis combine to make Tm28 and Tm29 jargon-like in quality. The task undertaken by Tom at this point is, however, not one which is typically encountered in everyday talk. Below, (Chapter 10: Features of Autistic Language) agrammatic performance of normals during cognitively complex tasks is discussed. While Tom's performance here is certainly dysfluent and incohesive, it is comparable to non-autistic-type utterances in similar contexts.

More frequently in Tom's talk we find clauses which, while acceptably structured and easy to understand, are oddly organised. Truncation is one aspect of this peculiarity, and one which has been mentioned both above in this chapter and in relation to other study
participants. Tom’s truncated utterances tend, as with the other study participants, to involve omission of early occurring items. Tm30 below exemplifies this.

Tm30a

S (3.1) and ‘what about ‘Hannah
T (1.9) ‘older than that ‘(2 syllables)’

Tm30b

1 S (0.8) ‘what did he do
2 T (.) ‘lecturer at ‘Grape Lane
3 S (.) ‘oh_right
4 T (.) ‘heard of that_place

Tm30c

S it’s f=
T = ‘last ‘fifty’ years or so even more than ‘that (.) was the (0.7) the biggest ‘waste of (.) ‘blood and ‘life (0.7) ‘then (.) been in the whole of ‘history in’t there

It can be seen that omissions are not syntactically based. That is, in each example a different type of item or items has been left out. Tom omits subject and verb element (copula and auxiliary) from Tm30a and Tm30b, line 4. In Tm30b line 2, he omits subject, verb (copula) and the indefinite article from the complement noun phrase, while, in Tm30c, only the definite article has been left out. Meaning is not unduly affected by this, since the items that are cut from Tom’s truncated utterances are all functional and therefore have a low semantic load. A further contributing factor to the negligible effect on meaning is English end-weighting for content. Since the omitted items occur early in the clause they are less likely to bear informational load.

The omission of items is not however, restricted to those that come early in the clause. Tm31 illustrates a typical answer to the information section of the WAIS-R test.

Tm31

T (1.0) ‘merican ‘civil’ rights ‘leader who was a’ssassinated nineteen sixty_eight ‘memphis (1.7) by James ‘Earl Ray

The omission of items is here limited to functional/relational items as it is in Tm30; in this case, a preposition is left out. The meaning of Tom’s utterance is not affected, but there is a telegraphic quality to the utterance. This feature has been discussed above at length.

Tm30c exemplifies another feature of Tom’s clauses which seems peculiar to him amongst the study participants: non-canonical phrase-sequencing. This feature is illustrated further in Tm32 below.
Tm32a
T = 'born in nineteen fifty seven' Hannah

Tm32b
T (1.1) "Costa Rica" whisper
(1.0) a 'country which had' never taken 'part in the second world war' hhh (.) which ironically abolished its army three years afterwards 'Costa Rica

Tm32c
T (3.5) 'Portugal throughout history was Britain's 'friend (.) like France was its tr[a'ditional]
S '[mnmhm] '
T 'enemy =

Tm32d
T (2.2) 'Charles the 'first in his 'greed to get paintings made himself (.) the 'country 'bankrupt 'buying Van 'Gogh paintings =

Tm32e
T (.) erm (1.9) cos of the 'Russian Revolution we were 'glad that America 'entered cos we'd 'lost an 'ally:: (.) cos

Tm32f
T [be ] cause they wouldn't 'leave (.) a piece of 'Asia called Man 'churia they'd declared 'war on (.) Russia

The pattern for these utterances is varied. In Tm32a and Tm32b, Tom has put the subject in final position (the whispered "Costa Rica" in Tm32b is treated as a separate utterance due to the voice quality and pause which follows it). Note that both of these utterances include partial or complete omissions from the verb phrases. In Tm32c and Tm32d the utterance accords better with the surrounding talk, if the adverbials (respectively "throughout history" and "in his greed to get paintings") precede the subjects. Finally, in Tm32e, the first dependent 'because' clause is informationally better located after the main clause (target: "we were glad that America entered cos we'd lost an ally cos of the Russian Revolution"), as is the case in Tm32f (target: "they'd declared war on Russia because they wouldn't leave a piece of Asia called Manchuria". Here, there seems to be a particular problem in indicating causality and consequences in the right order. These judgements about acceptability are intended to be based on discourse requirements rather than stylistic ones.
Whilst, strictly speaking, these are not errors, but rather choices made by Tom, there is a range of acceptability in these canonical sequence alterations. Tm32a is quite odd due to the violation of fairly rigid English word order expectations (MacWhinney, 1989), while Tm32c is reasonably acceptable. In the context in which it occurs, Tm32f relegates the important new information (the clause that deals with Manchuria) to the spot usually reserved for old, thereby causing confusion to the listener.

Such choices may reflect the use of particular planning strategies, an issue dealt with further below. Whether this is the case or not, at the discourse level, it certainly is the case that Tom’s co-participant has to work harder to access his meaning. Put another way, Tom’s utterances suggest that he does not take his listener’s needs into account. Tom’s use of pronouns as illustrated in Tm32ee below illustrates this point further. This section includes Tm32e above, as well as succeeding utterances.

Tm32ee

\[ \text{T} \text{ (be) cause they wouldn’t leave a piece of Asia called Manchuria they’d declared war on Russia.}\]
\[ \text{S (right) because Russians were in it and Japan wanted it back.}\]
\[ \text{T (and-)}\]
\[ \text{T (1.1) no they were penetrating in the area in the [hope] they’d leave the area}\]
\[ \text{S [right]}\]
\[ \text{S (right)}\]
\[ \text{T (0.9) and erm they’d helped China earlier on in the earlier this century again against Japan.} \]
\[ \text{T (0.8) and helped got a bit of territory back to Japan.}\]

The interlocutor has a considerable amount of work to do in disentangling the confusion of pronouns and antecedents.

Hence, difficulty at inter- and intra-clausal levels can be regarded in two ways: as suggestive of a flaw in sentence planning to convey complex messages, and as evidence of a degree of lack of competence at the discourse level.

8.8. Summary

Tom presents us with a complex set of linguistic features. While he is by far the most sophisticated language user amongst the study participants, and the only one whose full scale I.Q. is not an unequivocal indication of cognitive impairment, he does exhibit features akin to those of the other study participants; for example, the use of particular prosodic features in specific discourse contexts. Other features are relatively sophisticated and may be associated with a relatively well-developed linguistic competence; for example, taking control of topic shift and maintenance. In the main however, Tom’s language shows features similar to those of the less able participants, with less severe indications of
impairment. For instance, while Tom exhibits odd prosody, he does not faithfully other-model this dimension of his speech. In common with the other participants he relies on particular strategies to extricate himself from unwanted conversations. These, however, are neither as rigid nor as uncommunicative as they are for the other participants. Tom’s language is, broadly speaking, repetitive, and he appears to have problems in disinhibiting perseveration of lexis within local environments. However, there is an interaction between repetitiveness and productivity in Tom’s language which is far more suggestive of a normal linguistic profile than with the other participants. Linguistic tasks requiring a high level of metalinguistic ability give rise to a revealing level and type of dysfluency. While similar features have been noted in the language of normal individuals engaged in complex or unfamiliar linguistic tasks (Pawley & Hodgetts Syder, 1983), the extent of Tom’s dysfluency and range of errors suggests that Tom’s linguistic ability may be somewhat more fragile in these environments than that of normals. In particular, Tom does not seem to have an adequate strategy to enable his performance in difficult contexts. Similarities between Tom’s errors and errors which occur as a feature of normal development may then be superficial, and, rather than indicative of incomplete linguistic development, may reflect difficulties in on-line processing.
9. Penelope

9.1. General Background
Penelope is a twenty eight year old female with autism who is resident at the same institution for adults with autistic spectrum disorders as Tom. Socially, she is relatively able, such that she manages to hold down a part-time job, to which she travels on her own on a daily basis. She is relatively passive though talkative with a fairly cheerful disposition. She has an obsessive interest in Keith Chegwin to whom she has written letters for some years.

Living some way distant, Penelope’s parents were unavailable to give background information about her. The WAIS-R (Wechsler, 1981) was administered to provide cognitive context to Penelope’s talk.

9.2. WAIS-R Analysis
The WAIS-R intelligence quotient measurement showed Penelope as having a full scale intelligence quotient of 65: verbal sub-score of 60; performance sub-score of 73. This puts her in the category of mentally deficient. The breakdown of Penelope’s Wechsler scores is shown below.

<table>
<thead>
<tr>
<th>Verbal Subscale</th>
<th>Scaled Score ( ) show rank order</th>
<th>Performance Subscale</th>
<th>Scaled Score ( ) show rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>1 (3)</td>
<td>Picture Completion</td>
<td>5 (2)</td>
</tr>
<tr>
<td>Similarities</td>
<td>1 (3)</td>
<td>Picture Arrangement</td>
<td>4 (3)</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>3 (2)</td>
<td>Block Design</td>
<td>8 (1)</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>3 (2)</td>
<td>Object Assembly</td>
<td>8 (1)</td>
</tr>
<tr>
<td>Comprehension</td>
<td>3 (2)</td>
<td>Digit Symbol</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Digit Span</td>
<td>6 (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A thirteen point difference between subscale scores is considered significant (Wechsler, 1974), hence Penelope’s performance score is significantly higher than her verbal score. Such a wide disparity between subscale scores and in favour of the performance subscale is reported fairly widely in the literature on Wechsler profiles in autism (Allen, Lincoln, & Kaufman, 1991; Asarnow, Tanguay, Bott, & Freeman, 1987; Freeman, Lucas, Forness, & Ritvo, 1985; Lincoln, Courchesne, Kilman, Elmasian, & Allen, 1988; Narita & Koga, 1987; Ohta, 1987; Schneider & Asarnow, 1987; Wassing, 1965). This feature is, however, fairly
unusual amongst the research participants in this study, who tend to have elevated verbal scores, albeit rarely to a significant degree.

Penelope's profile peaks and troughs are also fairly typical. Lockyer and Rutter (1970) report performance peaks and troughs in accordance with Penelope's, while Szatmari, Tuff, Finlayson, & Bartolucci (1990) report identical verbal peaks and troughs. Both of these studies however, describe full scale intelligence quotients with slightly higher verbal than performance scores: that is, a pattern which is the reverse of Penelope's profile.

The skills associated with good performance on the object assembly task include being able to recognize a picture from its component parts and good awareness of spatial relations (Wechsler, 1974). Successful block design also suggests good spatial relations and the ability to analyse forms into component parts. These two skills are, then, relatively well developed according to Penelope's performance peaks. Her verbal peak suggests a relatively good short term memory for figures.

Penelope's performance troughs suggest relatively poor visual memory and ability to learn non-verbal material, while verbal troughs indicate an absence of general knowledge, a deficient long term memory for facts, difficulties in relating real world referents to ideas, categorizing and conceptualizing (Wechsler, 1974). We may then expect Penelope to show limitations in lexis and the relational aspects of language. A good short term memory may also predispose her towards forms of immediate echolalia.

9.3. Speech

9.3.1. Misarticulations

Penelope's pronunciation is not always accurate. The utterances below illustrate the types of misarticulation that may occur in her speech.

The misarticulations below (P1a and P1b) involve low frequency words which have been simplified to a certain extent. It seems entirely feasible that Penelope may not have encountered these items in a productive context before and hence mispronunciation may be related to imperfect imitation of the model, since they will not be part of her lexicon.

P1a

S (1.4) æɛɪɑɪ ə r (.) 'designate
P (.) ɪ /eɪ ɪn /ɪ /eɪ /eɪ /

P1b

S (0.9) ɔ kæzɪ (1.9) 'regulate (.) ɪ 'd'you know what that means'↑
P [{'æɡəlæut} ] (.) 'means 'go

'swimming
Simplification is understood to involve such features as the omission of segments ([g] in Pla; [j] in Plb) and neutralisation of vowels ([o] becomes [ə] in Plb). In addition to this simplification, the alveolar consonants occurring within the first two syllables in both Pla and Plc have become dentalised. It is further noted that the stressed vowel in Plc has been made more close in Penelope’s imitation. While this is not simplification it may be considered to be articulatory harmonising towards the surrounding obstruents. Simplification also occurs with lexical items with which there is good reason to presume Penelope is familiar:

**Pla**

P (.) she left- (.')Big Breakfast in ninetyfive as we'll. ((0.6) {zəʊ} Baill (.') first started on

**Plb**

S (0.7) he always looks very' friendly an' hap[py,doesn’t he  

P [ ye:::ah   | () {va}'friendly

and_happy

**Plc**

P (.) he ‘does the ‘first {dan} theˌdoorstep asˌweˌll

**Pld**

P (.) ‘working on (.') in theˌdesk asˌweˌll [target: desk]

**Plf**

P (.) with {bɪəts} (.') like that [target: beard]
Finally, the examples above contain lexical items where Penelope has substituted segments. P1i is similar to P1c in that the vowel [e] has been made closer, resulting in a loss of contrast between phonemes. The target [d] in P1j has been affricated and devoiced, while the target nasal [n] in P1k has been substituted by its homorganic plosive. P1l is the only misarticulation in which a segment has been inserted: [t]. This example also contains a segment substitution that is some way from the target: [ŋ] for [a], perhaps due to a process of harmonising with later segments.

Penelope’s misarticulations, then, consist of segment or syllable deletions, closing of [e] in environments which suggest that harmonising may be the cause, vowel neutralisation, segment substitution, and, in one case, segment insertion. While the first three are consonant with making pronunciation easier, the two final categories of segment substitution and insertion are not necessarily. Nor is there any obvious explanation for P1i -P1l since the substitutions are unsystematic: for example, [d] is the target in P1j and the substitution in P1k. Since productions such as are exemplified in P1j- P1l are relatively rare in Penelope’s speech, it is possible that, rather than these being indicative of a disordered phonology, they are simply idiosyncratic productions of the sort that children may make en route to correct pronunciation of an adult target (Menn & Stoel-Gammon, 1995: 359). In the main, then, it seems safe to assume that the majority of Penelope’s misarticulations result from the persistence of early simplifying processes (Crystal, 1981: 46).

9.3.2. Intonation: Faithful and altered contours
In common with other research participants, Penelope has a restricted vocal range and favours shallow intonation contours:

P2

P .hhh I’ve been ‘working ‘sin{ss;} (2.1) e::rrm () ‘four ‘years a’go ‘since () ‘nineteen ‘ninety ,three:

In addition, Penelope’s use of tone can sometimes be quite odd. P3 illustrates the unconventional use of tone in a list.

P3

P .hh I’ve got” Gladys (0.8) ‘Edith ‘Ann (0.6) ‘Marion as ,we::ll (0.8) and ,Wendy and ‘Donald ,Harris () the,officer

Tonal nuclei are sometimes sited unconventionally: P4a illustrates the odd placing of stress in the lexical item ‘key worker’, while P4b shows the tone unit nucleus occurring in an unexpected location.
Both of the above examples, P4a and P4b, are interesting, in that they clearly show that Penelope is modelling her turn on the prior turn of S, but in neither case has the tone been mimicked. The modelled utterances which result have an odd quality which certainly would not have been the case had Penelope’s utterances been faithful echoes. In fact, tone in Penelope’s other-modelled utterances is generally close to the model but rarely echoic:

P5a
S (0.7) that’s really, good init
P (.), really ‘good init

P5b
S (0.9) ‘yeah (.) is it- is it like an ‘overall
P ‘overalls s’well [(.) ]like an ‘overall

P5c
S (1.6) and- I expect you have to be very`clean (.) as [well ]
P [, YE]AH (.) be very
‘clean as `well

P5d
S (0.7) are they gonna `match =
P =YEAH `match

P6 represents an isolated occurrence of a truly faithful repetition of an utterance including tone contour (it should be noted that P5 and P6 utterances are all taken from Transcription One:15.7.96, while P7 utterances are taken from the WAIS-R Transcription: 22.7.96: Appendix 7.2.).

P6
S (7.0) lovely
P (.),‘lovely (5.2) ‘yea::h

Interestingly, faithful echoes of tone and lexis together occur much more frequently in the WAIS-R Transcription during the vocabulary subtest. P7 below are examples of such utterances.
P7a
S  (. ) what bout (. ) ponder d ' you know what [ , that ' means] 
P  [ ' ponder     | (. ) ' me::: ans (. ) can ' t
remember

P7b
S  (0.6) re ' luctant 
P  (. ) re ' luctant (. ) no::: (. ) can ' t re; member

It is possible, then, that while Penelope's use of tone is unconventional, it is not entirely 
unsystematic, in that faithful replication of lexis and tone tends to indicate an inability to 
continue with the topic on which the lexeme in question is based, while remodelling of tone 
is indicative of the reverse. Indeed, the function of the utterances in P5 appears to be that of 
concurrence with the prior turn. Such a function is implied not only by the sequential 
location of Penelope's modelled utterances, but also by her "yeah" additions in P5c and 
P5d (see below for discussion of "yeah/yes").

9.3.3. Formulaic utterances and tone
The issue of often used lexical items in Penelope's repertoire, or formulas, naturally relates 
to the above, but is also dealt with in the section on repetition below. The two utterances 
which recur most significantly and in company with particular tones are "yeah/yes" and 
"as well". "Yeah/yes" has a strong tendency to occur with rising tone, while "as well" 
has a strong tendency to co-occur with falling tone with a final extended vowel.

9.3.3.i. "yeah/yes"
Throughout the transcripts there are 85 separate tokens of "yeah/yes". The frequency of 
ocurrence of types of "yeah/yes" are shown in the table, PT: ii below.
Tone realisation of “yeah/yes” tokens in Penelope’s talk

<table>
<thead>
<tr>
<th>Tone realisation of “yeah/yes”</th>
<th>Percentage of total number of “yeah/yes” tokens (n=85)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising “yeah/yes” (&quot;yeah/yes&quot; occurs with high or low rising tone)</td>
<td>68%</td>
</tr>
<tr>
<td>Rising “yeah&quot; (&quot;yeah&quot; occurs with high or low rising tone)</td>
<td>48%</td>
</tr>
<tr>
<td>High rising “yeah” (&quot;yeah&quot; occurs with high rising tone)</td>
<td>32%</td>
</tr>
<tr>
<td>Rising “yes” (&quot;yes&quot; occurs with high or low rising tone)</td>
<td>14%</td>
</tr>
<tr>
<td>Falling “yeah” (&quot;yeah&quot; occurs with high or low falling tone)</td>
<td>25%</td>
</tr>
<tr>
<td>Falling “yes” (&quot;yes&quot; occurs with high or low falling tone)</td>
<td>7%</td>
</tr>
</tbody>
</table>

The tendency for the “yeah/yes” token to occur with rising tone, and in particular, for the “yeah” variant to occur with high rising tone can thus be seen. The range of functions of “yeah/yes” are shown in the table, PT: iii below.

PT: iii - Functions of “yeah/yes” tokens

<table>
<thead>
<tr>
<th>Function of “yeah/yes”</th>
<th>Percentage of occurrence (from total utterances)</th>
</tr>
</thead>
<tbody>
<tr>
<td>minimal response</td>
<td>36.8</td>
</tr>
<tr>
<td>turn-taker</td>
<td>24.7</td>
</tr>
<tr>
<td>confirmer</td>
<td>18.8</td>
</tr>
<tr>
<td>part of responding utterance</td>
<td>12.6</td>
</tr>
<tr>
<td>part of confirming utterance</td>
<td>1.1</td>
</tr>
<tr>
<td>others</td>
<td>6</td>
</tr>
</tbody>
</table>

The definitions of the above functions are as listed below.

**Minimal response.** “yeah/yes” given as an acceptable but minimal response to a question. These utterances have to occur as the only element of one of Penelope’s turns, or may be part of multi-component turns as long as they are the first element and are separated by the succeeding component by a pause lasting a minimum of one second, for example:
Well do you want to tell me something about yourself?

**Turn-taker.** Where “yeah/yes” does not have any apparent sequentially significant relationship to the surrounding talk. These utterances do not further the talk by completing two-part pairs, or by maintaining or continuing the topic. Whilst these utterances are the least interactive of the “yeah/yes” tokens, they do limit the occurrence of extended pauses:

P8b

P

decided (.) what time as well =

S

= right

P

(1.0) ‘yeah

S

(0.7) ‘brilliant’

**Confirmer.** “yeah/yes” indicates concurrence with or acknowledgement of the prior turn, and hence has sequential significance in the context of surrounding talk, and also enables the movement forward of topic:

P8c

S

(0.8) ‘ah you are lucky

P

( . ) ‘yeah

While the above are suggested as discrete categories, it is sometimes possible to make an argument for an example of an utterance to be defined in more than one way. In particular, it seems likely that the categories of turn-taker and confirmer may fade into one another. P8d below represents just such a case:

P8d

S

( . ) ‘ah ‘right ( . ) I do like him

P

(0.6) ‘yeah

These utterances are, however, relatively rare in the transcript and have not been taken into account in the calculations.

The final two categories are simply cases where “yeah/yes” form part of a larger utterance, the function of which is defined as above:

**Part of confirming utterance**

P8e

S

( . ) ‘ah ‘right ( . ) so all four of you

P

( . ) ‘yeah four of me as well
Part of responding utterance.

P

S (. and they’ve got big thumbs ’ have [they ]

P [ ye:]h [(1.3)], they got big thu::mbs

Tables PT: iv below show functions of “yeah/yes” token variants.

PT: iv a - Functions of rising “yeah” token

<table>
<thead>
<tr>
<th>Type of “yeah/yes” token</th>
<th>Function</th>
<th>Percentage of total token type (n=46)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising “yeah”</td>
<td>turn-taker</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>minimal response</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>confirmer</td>
<td>27%</td>
</tr>
</tbody>
</table>

PT: iv b - Functions of rising “yes” token

<table>
<thead>
<tr>
<th>Type of “yeah/yes” token</th>
<th>Function</th>
<th>Percentage of total token type (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising “yes”</td>
<td>turn-taker</td>
<td>41.6%</td>
</tr>
<tr>
<td></td>
<td>minimal response</td>
<td>33.3%</td>
</tr>
<tr>
<td></td>
<td>confirmer</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

PT: iv c - Functions of falling “yeah” token

<table>
<thead>
<tr>
<th>Type of “yeah/yes” token</th>
<th>Function</th>
<th>Percentage of total token type (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falling “yeah”</td>
<td>turn-taker</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>minimal response</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>confirmer</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>part of responding utterance</td>
<td>33%</td>
</tr>
</tbody>
</table>

PT: iv d - Functions of falling “yes” token

<table>
<thead>
<tr>
<th>Type of “yeah/yes” token</th>
<th>Function</th>
<th>Percentage of total token type (n=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falling “yes”</td>
<td>minimal response</td>
<td>66.6%</td>
</tr>
<tr>
<td></td>
<td>others</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

From the above we can see that there is a tendency for rising tokens to mainly have the function of turn-taker; that is, the least interactive function corresponds with the most frequently occurring token variant (if the categories of high and low rising tone are conflated). Falling tokens, however, have the main function of minimal response, with turn-
taking function occurring as the least frequent of all functions. This brief analysis therefore enables us to note a clear relationship between realisation of tone in a formulaic utterance and function within Penelope’s speech. Falling tone in company with the “yeah/yes” token is associated with a more interactive function than rising tone. Indeed, falling tone tokens appear to be comparatively more flexible than rising tone tokens, in that their range of functions is greater and more diverse. Falling tokens also sometimes occur accompanied by loud volume in the data (see P9 below), whereas this is never the case for rising tone tokens.

P9

S (0.9) a::h ri::ght (.) so he's he 'does still do the 'Big Breakfast
P (.) YE::S

9.3.3.ii. “as well” and “either”

As noted above, “as well” also occurs frequently in the transcripts and can be identified as a formulaic utterance. In all, “as well” occurs on 49 separate occasions during Transcription One. Examples of “as well” can be seen in Pl1d, Pl1f, Pl1h, Pl1i, P3, P4b, P5c, P8b, P8e. The breakdown of realisation and position in which this formula occurs can be seen in PT: v below.

<table>
<thead>
<tr>
<th>Realisation and Position of “as well”</th>
<th>Percentage of total occurrences of token (n=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. falling tone, extended final vowel, utterance final</td>
<td>73.5%</td>
</tr>
<tr>
<td>2. falling tone, extended final vowel, mid-utterance</td>
<td>4%</td>
</tr>
<tr>
<td>3. other realisations, utterance final</td>
<td>20.4%</td>
</tr>
<tr>
<td>4. other realisations, other place</td>
<td>2%</td>
</tr>
</tbody>
</table>

Even more so than with “yeah/yes”, “as well” has a strong tendency to occur with the same realisation and in the same position within an utterance. Realisational variants do exist (categories 3 and 4), though these tend to involve levelling or flattening of tone (as in P10a), with only one occasion of rising tone (P10b) and one of fall-rise (P10c), and account for less than a quarter of all tokens.

P10a

P (.) brilliant (.) as 'well

P10b

P (.) mmm (0.9) m_yea::h(1.0) _hhhhhh _thanks: _hhh (.) I had _haar 'coloured (.) as we::ll

P10c

P (.) I wo- (.) I 'like working there as 'we::ll
"as well" utterances do not have an easily identifiable function; rather, it seems that "as well" is added to utterances of all types. Both utterances which are highly dependent on other prior-turns and those which have a more productive appearance may include the "as well" formula:

**P10d**

\[ S \quad (0.7) \text{right (.) wha- (.) the officer what (.) sort of 'officer is he} \\
\quad P \quad (1.0) \text{working on (.) in the \{desk\} as 'well} \\
\]

**P10e**

\[ S \quad (0.6) \text{is 'that all \_right} \\
\quad P \quad (0.6) \text{'that all \_right as 'well} \\
\]

"as well", then, as with "yeah/yes", is a formulaic utterance with a strong tendency to be realised similarly: with "yeah/yes" the similarity involves the suprasegmental feature of tone, while for "as well" tone and vowel extension are involved. Further, the realisation of tokens is limited to a few types. While for "yeah/yes", function can be associated with realisational type, "as well" is associated only with location within an utterance.

There are three occurrences of "either" in the two transcripts. Despite this incidence being too low to suggest a formulaic identity of equivalent significance as "yeah/yes" and "as well", there are good reasons for regarding this utterance as having a formulaic quality. The three occurrences of "either" are shown below in P11.

**P11a**

\[ P \quad \text{been on \_oliday \_either} \]

**P11b**

\[ P \quad (1.6) \text{then I had a \_lazy \_day on the \_beach \_either} \]

**P11c**

\[ P \quad (0.7) \text{\_sentence \_mean \_put the \_words \_right \_either} \]

In common with "as well", "either" always occurs in utterance final position and, also in common with "as well", it occurs with considerably reduced lexical significance: that is, the word's meaning does not accord with its context. "as well" is a focusing adjunct and as such can be interpreted meaningfully in a wide variety of contexts even though the communicative intent may be lacking. P10b is an example of the possibly fortuitous occurrence of "as well" with a context that enables a conventional interpretation. However, on most occasions, "as well" seems to be a superfluous addition to the utterance of which it is a part. P10a and P10d are clear examples of this. "either", whose classification can also be that of focusing adjunct, is far more obviously used without regard to its meaning, since on no occasion of its use does it appear to contribute to the meaning of the utterance. Thus, despite its limited distribution, "either" appears to be formulaic. As for "as well",
no functional significance between occasions of use is apparent, and its intraclausal function seems to be simply additive. Finally, “either” never occurs in any context where it is used meaningfully, nor does it occur in any location other than utterance finally.

9.3.4. Other prosodic features: Voice quality and intensity

Voice quality and loudness are features which Penelope manipulates in non-conventional ways. P12a and P12b below illustrate the use of peculiar voice quality in two utterances.

\textbf{P12a}

\begin{verbatim}
S (.1) is he
P (.1) is he (1.2°) ’he’s a lovely ma::n°
\end{verbatim}

\textit{creaky voice - low pitch}

\textbf{P12b}

\begin{verbatim}
P .hhh just say ello: (.1) as well (.1) Keith did (1.8) yea:::h
\end{verbatim}

\textit{creaky voice - low pitch}

Interestingly, it is only on the Keith Chegwin topic that Penelope marks utterances in this way.

Volume tends to be increased in utterance initial position as P13 illustrates below.

\textbf{P13a}

\begin{verbatim}
S (0.6) ’mmm (.1) ‘what ’sort of ’uniform is \_it-
P \_WH]ITE one
\end{verbatim}

\textbf{P13b}

\begin{verbatim}
S (.1) oh, lovely; (.1) wh- (.1) an ’what is it (.1) is it a pinafore
P (.1),PLAIN (.) white ’one (.) a[s we ]ll
\end{verbatim}

\textbf{P13c}

\begin{verbatim}
S (0.9)mm (.1)you ’said you were gonna save up (.1) ‘for something=
P = SAVE ’UP (.1) to
buy my new clo:htes (0.6),h and a bedding (.1) as,we:ll
\end{verbatim}

As with other research participants, the location of loud volume, that is, in utterance initial position, particularly in overlapped or latched turns, is in accordance with normative data. What marks off Penelope’s utterances of this type is the large degree of increase in volume.

Prosody, then, tends to be manipulated by Penelope in particular ways. Tone, in particular, has been shown to have an association with formulaicity, which in turn may be related to particular discourse functions (this is also discussed further below). On the other hand, such formulas may not have any obvious function or significance, other than to indicate Penelope’s propensity for such structures. Faithful reproduction of intonation contour of a model occurs only rarely and in such contexts as suggests a non-interactive intent. Finally,
Penelope occasionally uses a marked voice quality, but confines this to the context of obsessive topic.

9.4. Repetition

9.4.1. Formulaicity and other-modelling

Repetition has to some extent been dealt with above in the sections dealing with the realisational, functional and locational dimensions of the formulaic utterances “yeah/yes”, “as well” and “either”. As mentioned above, Penelope is rarely truly echolalic in her speech, as, at the very least, tones tend to be modified in her other-modelled utterances even if this modification often only involves levelling. The most faithful echoes that occur, do so in the context of the administration of the WAIS-R (see P6 and P7 above). However, as the examination of “yeah/yes”, “as well” and “either” suggest, repetition and formulaicity do occur elsewhere in Penelope’s talk. Indeed, utterances which are in some sense dependent on a prior other-turn are prevalent throughout. Other-modelling is defined here as a turn which has at least two lexical words or a complete phrase in common with an immediately prior turn. The only exception to this is when prior turns are less than two words in length.

During the first 124 turns in Transcription One (Appendix 7.1.), Penelope produces 27 other-modelled turns (21.8%). P14 exemplifies this type of utterance.

P14a

S (. ) oh` that’ s ‘ good (. ) so you get ‘ free dinner
P (. ) get ‘ free ‘ dinner , either

P14b

S (. ) yeah ‘ green , and ‘ mountains
P (. ) ‘ green and , mountains as well

P14c

S (1.4) you ‘ looking ` forward to it =
P = I’m looking , forward to it as well

P14d

S (. ) yeah (0.9) d˝ you ‘ like him
P (. ) I like him (0.8) yeah

P14e

S (0.9) an- ( . ) ` where’s your ( . ) is it ( . ) d’ you ` live at ` Poplar House
P (0.9) . hhh I ‘ usually ` live at ` Poplar House as well

P14f

S (2 syllables) did you go` swimming in the sea:
P (. ) no::: (. ) I d- (. ), didn’ t (. ) I paddled in the ,{ ss}ea: e- (. ) ass- (. )w- (. ), well

P14a and P14b both repeat the final part of the prior turn. Both are also reworked to a limited extent, in that tone is remodelled and items have been added utterance-finally. The additions in both cases are formulaic (the argument for both being regarded as formulaic is
made above). P14a and P14b, then, whilst not echolalic, represent the least productive type of prior-turn, other-modelled utterance in Penelope’s repertoire. P14c and P14d and P14e show a greater degree of re-working, although it should be noted that the tone contour of P14c is faithful to its model. P14c-e show alteration of pronoun from second to first person. P14c involves the addition of an auxiliary while P14d and P14e involve auxiliary deletion. P14e has “usually” inserted between subject and verb. This item is used frequently during this section of the transcript. However, it differs from “as well” and “either”, in that its use is apparently in accord with its conventional meaning (however, “usually” presents somewhat differently in the syntactic errors discussion below). Finally, P14f is the most productive other-modelled utterance. Discounting the false start, it includes a change of main verb and aspect, alteration of pronoun, and, as with the preceding P14 examples, the addition of a formulaicised component.

There is thus evidence of a degree of syntactic ability within the context of other-modelling, although Penelope certainly does make errors in both this type of utterance and those which have a more productive appearance. This issue is dealt with further below.

9.4.2. Syntactic repetitiveness
Penelope’s productive utterances (that is, those which are not other-prior-turn dependent) during Transcription One account for 26.66% of her turns (60 out of 225 turns). It should be noted that this calculation does not include minimal responses, since their status as productive or repetitive utterances is unclear. Incomplete sentences, apart from those where only the subject was missing, were also omitted for the purposes of this calculation. Taking these factors into consideration then, the amount of other-modelling and productivity appears to be roughly equivalent. The mean length of an other-modelled turn is 5.1 morphemes (138 morphemes in 27 other-modelled turns). This calculation was made using Brown’s conventions (Brown, 1973) for counting morphemes; that is, false starts, fillers and dysfluencies were discounted, and lexemes composed of derivational morphemes, proper nouns and unanalysed items were counted as one morpheme, for example, “as well”. By contrast, the mean length of turn of productive utterances as delimited above is 8.7 (524 morphemes in 60 utterances). Since, then, Penelope’s productive capacity exceeds her other-modelling, it seems unlikely that she makes use of other-modelling as a means to overcome syntactic deficiency.

Further to this, Penelope’s productive utterances are diverse in their syntactic function composition. These utterances range from simple SV or SVO structure to SAVOAA. However, when the realisation of components is examined, it is noted that, while Penelope has a preference for the extensive use of adverbials, these are often realised by one of her favourite or formulaic items. “as well” and “usually” are two such items that recur as the adverbial component in Penelope’s productive utterances. “usually” is used extensively but apparently conventionally during one section of Transcription One (as P15 below
exemplifies), which suggests that it is not formulaic. However, see the discussion on this item in the section on syntactic errors below for an argument which makes the case for its definition as a formula. Hence, although the item accords ostensibly with standard uses here, in fact it is best regarded as formulaic rather than merely repetitive.

P15a

P .hhh I 'usually 'shell' the eggs an (1.7) n' I 'usually- (.) '{meus-}(.). '{met? tsam} 
'sco:nes an- (0.8) 'fruit an, plain

P15b

P (0.8) n'I usually- (.) e:xrm (3.5) 'clear up the 'pots (.) an - 'empty the ash_trays (0.6) in those_bags n- (0.8) n the rubbish in those_bags .hhhh I 'usually did a lot of 'clear- (0.6), loading the 'dishwasher

P15c

P = n I 'usually 'put the pots away

P15d

P (.) 'usually have a _sandwich (0.7){a?}(0.7) 'Crown 'Court (.) l- (0.6) cos I .hhhh 
don't ne- (.), need to 'pay my 'money, do I ,no::

P15e

P (.) yeah (.) I 'usually get paid every 'friday (.) as ,we::ll

P15f

P (.) I 'usually 'go on-(.) 'go, home (.) {sss}- (1.0) in 'summer and 'Christmas as 
`we::ll

P15g

P (.) I usually (.) 'visit my, parents [(.)] as , [we::ll

P15h

P (0.7)I usually 'see them in the 'summer and 'Christmas as , [we::ll ]

There is possibly some local influence at work here, since all but one of the “usually” tokens occur within the first 140 lines of transcript. Interestingly, “usually” always takes second place in the clause. It occurs first in P15d only because the subject is omitted. This is suggestive of the pattern which occurs with “as well” which almost always is located utterance finally.

Above, it is mentioned that the structure of Penelope’s clauses on the level of syntactic functions is diverse. However when “usually” and “as well” clauses are compared with
the other productive clauses, it is found that these are less likely to have a novel structure than other types. There are nine productive clauses with a “usually” component, which take five different forms. This gives a type-token measure of 0.55. “as well” clauses, of which there are 16 taking eight different forms, have a type-token measure of 0.5. The measure for other clauses is 0.8125. There is therefore a clear tendency for “usually” and “as well” to occur in company with more frequently used clause types.

When the productive utterances are subjected to further analysis for discourse function, it appears that the majority of productive utterances have the function of Response or Confirmation of prior turn. Of 60 utterances, only four are Initiators of new topic or contributors to topic. Three of these have an often used syntactic function structure (two have the structure of SVOA with A realised by “as well”, and one has SVOAA with second A realised by “as well”). The remaining utterance has a unique structure because it is a question.

There is, then, a tendency to use familiar forms to make initiations or to move the talk forward, as well as a relationship between the use of formulaic items within more often used, and hence more familiar, clause types. Thus, while Penelope appears to be using language productively to about the same extent that she is using it repetitively, repetitiveness has a subtle presence even in what appear to be productive environments. Further, there appears to be some interaction between levels of repetitiveness that are as yet unclear in their operation.

9.5. Syntactic Errors

9.5.1. Verb phrases
Penelope, in common with the other research participants, makes many errors during her talk. Verb phrase errors can be categorised into those which affect the expression of tense or aspect, and errors of omission. Omissions are often of auxiliaries as P16 below exemplifies.

P16a
P (1.2) been working at the Crown Court, restaurant (.), on the (.) w’-wednesdays and .fridays

P16b
P (0.9) get a pla:ne (.) an ’stay (.) an ap.artment as well

P16c
P [‘yea:]h [(1.36)] they got big thu::mbs

P16d
P (0.7) I’m going (0.8) been to Lanzarote (.) this‘y::ar
As with other research participants, P16a and P16b may well result from a tendency to truncate utterances by omitting early occurring items (subjects are also missing from these utterances). This cannot be the case for P16c and P16d where the first item in the utterance is not part of a verb phrase. In the case of P16d the auxiliary omission may be due to the false start. It is noted that deletion of the contracted "have" auxiliary does occur elsewhere in Penelope's speech. P16e below is a further example. However, P16e and P16f also demonstrate that Penelope does not omit the "have" auxiliary when it takes the third person singular variant. The tendency to delete this form is therefore unlikely to have a syntactic basis and possibly derives from dialectal influence.

P16c
P I 'got sm- (.I) I 'got e:::rm (1.2), Dawn's 'got 'small, thu:::mbs:

P16f
P (1.4) and 'Alan's got (.), Thomas has 'got 'big, thu:::mbs:

Other types of omission are shown below in P17.

P17a
P (.I) 'Lissa my 'friend as _we:::ill

P17b
P .hhh just say ello:: (.) as well (.)' Keith did (1.8) yea:::h **creaky voice - low pitch**

P17c
P (0.7) 'sentence 'mean put the 'words,right 'either

P17a demonstrates the omission of the copula, while P17b and P17c both include deletion of the third person singular morpheme. It is possible that these errors may stem from some genuine limitation of morphological competence. P18e-h below may also be interpreted as indicative of such a limitation.

Tense and aspect errors are exemplified in P18 below.

P18a
P (0.8) n'I usually- (.I) e:::rm (3.5) 'clear up the 'pots (.) an - 'empty the ashtrays (0.6) in those bags n- (0.8) n the 'rubbish in those bags .hhh I usually did a lot of 'clear- (0.6), loading the

P18b
S (0.7) 'what did he used to 'do on 'there
P (0.6) he 'does the doorstep as _we:::ill
S (.) † oh does he 'still 'do" that †
190

P18c
S (0.7) right () what- () the officer what () sort of officer is he
P (1.0) working on () in the { desk } as well

P18d
S (1.1) an wh- () what sort of things happen () when he 'does ' that
P () ' knocking on the doors () when (-) to ' visit people (1.3) in the house as well

P18e
S (1.3) an () ' what did you do in, Lanzarote () can you ' tell me what you did
P (1.3) e:::rm 1- () I ' ve ' ate ' out (1.5) n' I had a sun bathe as well (0.9)n' I ' went for a ride ()

P18f
P he:: () was on the s- () con- () { ss } () ' multicoloured swap ' shop ' John , Cra::ven is

P18g
S () and he ' used to ' do:: e:::rm() he used to do the- the- th- he used to go out and do the, swapping
P () ye:::s: (1.0) °Keith () Chegwin () does () does the ' big , swapping as , we:ll°=

P18h
S (0.6) that ' s it (0.7) d ' you re:member it then
P () ye:::s[s ( .) I re:member ] ed it

P18i
P be::en on ' oliday , either

yeah I ' ve been al ' ready

P18c and P18d are tenseless, which, since both follow a challenging question form (responding to "what sort of" questions requires the ability to manipulate and express both ontological and categorical knowledge: cf. the comments in the WAIS-R analysis above) may be indicative of Penelope’s difficulty in dealing with complex cognitive tasks and adequate syntactic expression simultaneously.

There seems to be genuine confusion in P18a and P18b between past and present tense. P18e, f, g and h also indicate confusion. The lack of cohesion with surrounding discourse in these examples is particularly noteworthy, suggesting that perhaps in some cases, these
errors result from a confusion surrounding the concept of time. This possibility is explored by S during the extract shown at P19a below, of which P18b is the culmination.

**P19a**

S (1.1) d'you- d'you'see him (0.8) have you 'seen him on anything else since the 'Big Breakfast

P (. ) I haven't seen him- ((drinks)) I haven't 'seen him (.) for h- a:ll ,wee:k (.) because 'Keith's has been off .hmmm but (.) he 'sometimes' comes on (.) {tj

S (0.9) a:::h, ri::ght (.) so he 's- he 'does 'still 'do the 'Big 'Breakfast

P (.) YE:::S

S (1.0) e:::hhh

P (.) 'yeah

S (1.0) cos I haven't 'seen the 'Big Breakfast for ,a:ges

P (. ) mhhh na:::

S ( .) n'il 'thought p'raps he didn't 'do it anymore cos I know he 'used to 'do it

P (.)ye:::s:::

S (0.7) 'what did he used to 'do on the:re

P (0.6) he 'does the doorstep as ,we:ll

In fact, at the time of the recording, the presenter in question, Keith Chegwin, no longer appeared on the programme referred to. As Keith Chegwin is a central obsession of Penelope's, it may be the case that her confusion stems from a strong desire for him to return to her screen soon. However, temporal confusion is also evident in P19b below, this time with the adverb “sometimes”. Penelope’s use of “sometimes” here cannot be accurate since the programme did not visit places more than once.

**P19b**

S (0.8) did' you 'ever go to (.) the 'Swap 'Shop did they 'ever 'come to your 'town

P (0.7) someti:mes eh (.) ye:ah (1.5) he:'s a 'lo::vely 'man

A single instance of the repetitive item “usually” also suggests that temporal adverbs may not always be used completely in accord with convention:

**P19c**

P (0.9) .hhhh I 'usually 'live at' Poplar House as ,we:ll

S (0.6) ri::ght' (1.0) an: (. ) 'sometimes d'you () 'go somewhere' 'else (.) as well (1 syll)

P (1.6) e:::rm (1.7) no:::

As in P19a, the researcher explores Penelope's meaning here, in this case, as the proposition conveyed seems unlikely. Thus, whilst context conspires to make the other instances of “usually” appear acceptable, it may not be the case that Penelope's concept of
the lexeme is in full accord with the community-wide usage. A formulaic definition may then be more appropriate for this item.

P18e and P18i are however, indicative of purely syntactic confusion. P18e is a blend between the present perfective form and simple past tense while P18i involves a duplication of past participle form, possibly caused by the interruption of the verb phrase by the time adverbial "already". Line 4 of P19a, P16c, P17a, P17b, P17c and P18e indicate particular problems with morphological inflection. Thus, while it seems possible that some of Penelope's verb phrase errors may result from more general cognitive difficulties of temporal awareness, there is certainly a syntactic aspect to at least some of them. Neither can truncation by excising early clause elements fully explain her syntactic limitations here, as has been shown above. Penelope's tendency to avoid tense marking in cognitively demanding situations is further suggestive of a fragile system. In all, then, Penelope's verb phrase errors imply a generally limited syntactic ability.

9.5.2. Noun phrases

Penelope's noun phrase errors fall quite neatly into discrete categories. By far the most pervasive are those that relate to her use of determiners. The errors exemplified in P20 below relate to incorrect insertion of a determiner where none is needed.

P20a

(1.2) been 'working at the Crown Court , restaurant (.) on the (.) w-: wednesdays and
, fridays (1.6) I usually - ( .) buy - ( .) c.d.s ( .) 'every , friday (0.6) then - ( .) an 'now I'm
'saving - ( .) my: - ( .) f- ( .) to 'buy ' new, clothes ( .) 'next , week

P20b

( .) an the , bedding ( .) as, we'll (0.6) an the ' new' , curtain (1.1) an the mat an the
, watch ( .) as, well

P20c

(0.6) yea:h (0.9) and she's hav- 'had a 'straight, hair ( .) in 'nineteen 'ninety,four:

Reference should be non-specific in line1 of P20a, as it should be for the listed items in P20b, where Penelope is telling the researcher what she is saving up to buy. Interestingly, line 3 of P20a shows Penelope making correct non-specific reference to new clothes. P20c shows incorrect use of a determiner to refer to the mass noun "hair".

"the watch" in P20b has the wrong determiner, relating again to non-specific rather than specific reference, as do the examples in P21 below.

P21a

(0.8) n'I usually - ( .) e::rm (3.5) 'clear up the pots ( .) an' 'empty the ashtrays (0.6)
in those bags n- (0.8) n the 'rubbish in those bags .hhhh I 'usually did a lot of 'clear-
(0.6),loading the
(0.7) 'usually have a sandwich (0.7) Crown Court (0.6) cos I. hhhh
don't ne- (.) need to 'pay my 'money 'do I. no:

= SAVE 'UP (.) to
buy my new, clothes (0.6) hh and a, bedding (.) as.well

P21d
P
(0.6) patterned curtains (.) and a- (0.6) bedding as.well

Penelope uses a demonstrative in P21a where clearly there is no endophoric or
extralinguistic context available to disambiguate the reference. The possessive “my” is used
rather than “any” in P21b, while P21c and d both show Penelope struggling with the non­
count noun “bedding” once again, which here requires the determiner “some”.

Determiners are simply omitted in P22a and b below.

P22a
P
(0.6) she left- (.) Big Breakfast in ninety (0.6) {zaz}, Bactt (.) 'first
started on

P22b
P
(0.6) with { brats:} (.) like that
target: beard

Penelope’s other noun phrase errors are shown below at P23.

P23a
S
(0.6) an- an ‘what- (.) d’you 'have in your sandwich
P
(0.6) ‘tunas

P23b
S
(0.7) a::t:: right (.) so ‘all four of you
P
(0.6) ‘yeah, four of me as, well

P23c
S
(0.7) right (.) ‘have you ‘seen ‘something you, fancy
P
.hhh I, chose that as ‘we:ll (.) few ‘weeks ago:: (.) with, Hannah

P23d
P
(0.6) hh ‘chosen a, pattern ‘one as ‘we:ll
Penelope’s confusion about how to refer to non-count nouns emerges again in P23a, this time with the use of the unnecessary plural morpheme. P23b is interesting, because it involves a prior-turn-dependent utterance, in which Penelope correctly identifies the pronoun “you” as requiring alteration to first person, but does not pluralise it. P23c and d both involve the use of forms (demonstrative “that” and pro-form “one”) which require antecedents which Penelope has not given, or at least not unambiguously so. Both instances are succeeded in the transcript by sequences in which the researcher initiates repairs. Similarly, P23e has no antecedent, although since this example is from the WAIS-R vocabulary subtest no repair is attempted.

Clearly then, Penelope has difficulties with fairly basic syntax. These problems extend beyond not taking listeners’ needs into account, although incorrect, ambiguous or unclear use of determiners, pronouns and pro-forms are certainly factors which lead to an impression of incohesive discourse, and are judged to be incorrect chiefly due to the inevitable ensuing comprehension difficulties. However, all the above examples, in particular P23a and P23b, are strongly suggestive of a lack of systemic awareness. Since noun phrases are so salient in language, Penelope’s lack of facility with them would seem to be indicative of a fundamentally immature syntactic ability.

9.5.3. Prepositions

Penelope’s use of prepositions is quite limited. Taking only her productive utterances from Transcription One of which there are 60, there are only 26 uses of prepositions, 2 of which are erroneous. Their breakdown into types is shown below, along with meanings of particular tokens (Quirk & Greenbaum, 1973).

<table>
<thead>
<tr>
<th>Preposition</th>
<th>in</th>
<th>on</th>
<th>at</th>
<th>for</th>
<th>of</th>
<th>with</th>
<th>round</th>
</tr>
</thead>
<tbody>
<tr>
<td>number of occurrences</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>meanings</td>
<td>temporal: 4</td>
<td>position: 4</td>
<td>errors: 2</td>
<td>idiom: 3</td>
<td>position</td>
<td>recipient: 1</td>
<td>possession</td>
</tr>
</tbody>
</table>

From such limited data it is difficult to draw any reliable conclusions. However, there does appear to be a tendency to use prepositions to indicate position (approximately a third of all
correct prepositions), while temporal matters are referred to using only “in” during the transcript. Penelope’s idiomatic uses of prepositions are exemplified below as well as her errors.

**P24: idioms: “on”**

P24a  
P (used to ) be on the Big Breakfast

P24b  
P Zo, Ba:ll (.) ‘first, started on the Big Breakfast in ni -ninety fi :ve

P24c  
P (hhhhhh), yer(hhh)ah (.) on the telly I, measured his (1.4) ‘thumb like ‘mii::ne =

**P25: idioms: “for”**

P25a  
P (1.4) an did some ‘shopping- (.) for ‘food as ,we:ll

P25b  
P (0.9)n’ I ‘went for a ‘ride

**P26: errors**

P26a  
P (1.0) working on (.) in the {,desk} as well

P26b  
P (0.9) get a ‘pla:ne (.) an ‘stay (.) an apar:ntment as ,we:ll

All the “on” idioms are related to television and television programmes, while the “for” uses are considered idiomatic because they appear in often-used expressions. Their use here is formulaic, although this formulaicity extends to the wider community, and is not then necessarily a feature peculiar to Penelope’s language.

Both errors relate to the use of Penelope’s most frequent preposition “in”. In P26a she self-repairs to use it incorrectly, despite the acceptability of her original attempt. As with the P24 and P25 examples, “working on the desk” is an idiomatic prepositional form, although in this case, Penelope is clearly not confident of its use. Interestingly, in this situation she reverts to her most frequently used preposition “in”. P26b is a case of simple omission. The question which preceeds this utterance is of the type that Penelope appears to find problematic (wh-question types are discussed in the section on conversation below), hence the omission of the preposition in this case possibly relates to the challenging context.

Penelope’s prepositions are all part of prepositional phrases functioning as Adverbials. The single exception, shown below at P27, is part of a nominal postmodification.

**P27**

P (1.3) ‘very, well ‘stayed in the(.) a,par:ntment as ,we:ll (1.2) ‘me an Mel:issa ‘shared the ‘rest of my:: ‘room
Penelope's meaning is not clear in this case. The most likely target is "me and Melissa shared a room". If this is the case, then "the rest of" is superfluous, and suggests that it has been imported into the utterance without analysis. As such, it would count as a formulaic usage. However, in the absence of further comparable tokens it is difficult to be certain of its status.

Perhaps the most telling feature of Penelope's use of prepositions is their infrequency. While this makes it difficult to detect definite patterns of usage, it also suggests a limited facility. This limitation is further implied by Penelope's evident preference for the "in" form, such that she self-repairs to include it erroneously. Similarly, the functional role played by prepositions within clauses, as well as the spread of meanings to which Penelope applies them suggests limitation. Finally, we see in P26b above, that, under duress, even Penelope's most established preposition is excised to contribute to an overall telegraphic effect. Once again, the implication is that of a fragile system, whose successful operation is subject to relatively slight contextual pressures.

9.5.4. Clauses
Penelope's clause structures are discussed in the section on syntactic repetitiveness above. Further to the points noted there regarding preferred clause structures, there is also a tendency to truncate clauses by excising early occurring items. Examples are given in P28 below.

P28a

P (1.2) been 'working at the 'Crown 'Court restaurant (. ) on the (. ) w-wednesdays and .fridays

P28b

P (. ) 'usually 'have a ,sandwich (0.7){a?}(0.7) 'Crown 'Court (. ) I- (0.6)

P28c

P (1.0) 'working on (. ) in the {,disk} as 'well

P28d

P the YE|AH (. ) be very

P28e

P (. ) .hh 'chosen a ,pattern 'one as ,we'll

Penelope certainly does not make use of this strategy consistently, nor is it applied to only productive clauses: P28d and P28e are prior-turn dependent. Also, although clause components are deleted, P28d exemplifies a case where Penelope has inserted a formulaic "yeah/yes" token external to the truncated clause. As with other research participants, the deletion of early occurring elements is not confined to discrete clause components: subject and auxiliary are deleted in P28a, while just the subject has been omitted in P28b.
Clause connecting also tends to be simple. By far the majority of clauses in Transcription One occur on their own as single simple units. In all, there are only 24 points at which it is possible to use a co-ordinator or subordinator in the transcription as it stands. When more than one clause is present, and connection is explicit, co-ordination using "and" is the preferred option:

**P29a**

P (0.8) n'I usually- (.) e:::rm (3.5) 'clear up the 'pots (.) an - 'empty the ash trays (0.6) in those bags n- (0.8) n the 'rubbish in those bags .hhh I 'usually did a lot of 'clear- (0.6) loading the 'dishwasher

**P29b**

P (1.3) e:::rm I- (.) I've`ate `out (1.5) n' I had a sun'bathe as we'll (0.9)n' I 'went for a 'ride (.) 'round the countryside (.) as we'll (1.4) an did some 'shopping- (.) for 'food as ,we'll

"and" occurs as the co-ordinator nine times. "but" is used to co-ordinate clauses on only one occasion:

**P29c**

P (.) I haven't seen him- ((drinks)) I haven't 'seen him (.) for h- a:ll ,wee:kl (.) because 'Keith's has been .off .hhh but (.) he 'sometimes 'comes on (.) {g ,ke13antli:}.

The option of juxtaposing clauses without any explicit connective is also used by Penelope. This can be seen in line 2 of P29a above and in P29d below:

**P29d**

P (0.8) he's- (.) he's- (.) he's` pretty (.) he's` beautiful (.) he's a` very 'gorgeous 'man [ 'Keith ,Chegwin is ] eh

This least effortful of connecting strategies is also employed on nine occasions. The only subordinator used by Penelope is "because", in both its full and also its contracted form "cos". This is exemplified in P29c above.

Dependent clauses appear to a limited degree in the transcriptions. These are always infinitive "to" clauses. The three examples that occur are shown at P30 below.

**P30a**

P an 'now I'm 'saving- (.) my: - (.) f- (.) to 'buy 'new, clothes (.) 'next ,week

**P30b**

P cos I .hhhh don't ne- (.) ,need to 'pay my 'money ,do I .no::

**P30c**

P (.) 'knocking on the doors (.) when-(.) to 'visit, people (1.3) in the 'hou::se as ,we'll
At the above-clause level Penelope’s language is, then, quite simple. Clause connecting is for the most part avoided, and, when it does occur, is achieved using forms and strategies whose logical and formal expression is predictable and accessible.

9.6. Conversation

9.6.1. Questions and pauses
In comparison with the other research participants, conversation with Penelope contains relatively few extended pauses (extended pauses are those which are at least one second in length). Indeed, Penelope is inclined to fill pauses that are exceptionally long. Penelope appears to use extended pauses for comparable reasons to other research participants: for instance, when there are high linguistic demands made on her by her interlocutor. These demands generally take the form of questions, in particular wh-questions are likely to induce extended pausing:

P31a
S (.) an- (. ) ‘what was it, like
P (1.3) ‘very well ’stayed in the(. ) apartment as ,we::ll (1.2) ’me an Melisse ‘shared the ’rest of, my:: ‘room

P31b
S (.) an- (. ) ‘what are they all’ like (0.8) °can you ‘tell me a ’bit about ea- °(. ) ‘what they ’look like an wha- (. ) ‘what ‘sort of’ people they are
P (1.5) { ‘nais::} large font indicates loud volume

P31c
S (0.7) )right (. ) wha- ( .) the,officer ‘what (. ) sort of ‘officer is he
P (1.0) ‘working on (. ) in the (.disk} as ‘well

That Penelope struggles with finding responses to these questions is evidenced not only by the pauses, but also by the peculiarities of the responses she eventually makes. P31a has been mentioned above (as P27 in the section on prepositions), where the final turn component was examined. However, the initial turn component is also odd in the lexical choice of “well” rather than “good”. P31a also falls into the category of turns that are multi-component, but in which connectives are avoided. P31c has likewise been examined above (as P28c in relation to deletion of early clause components; as P26a in relation to formulaic prepositional phrases; P18c in relation to tenseless verb phrases; P1i as an example of a conflation between /h/ and /e/ phonemes). This utterance is thus interesting for a variety of reasons, hence the location of this particular extended pause is perhaps not surprising. The difficulty of the “what sort of” wh-question type which elicits this problematic response is further evidenced in P31b where another token of the “what sort
of" question also gives rise to extended pausing. Penelope’s response here, given the amount of information apparently sought by the researcher, can be considered minimal. Hence wh-questions appear to correlate with next-turn extended pauses. The responses which follow such pauses also show features on other levels which can be associated with increased linguistic demands.

Increased load made by the sequential environment is also relevant in the context of the WAIS-R. While the demands in the P31 examples can be argued to be of a fundamentally linguistic nature, those made by the questions in the WAIS-R are both linguistic and cognitive. Penelope deals with these questions in a variety of ways. Penelope’s responses to some of the questions from the information subtest are shown below.

P32a
S (.d you know what’colours are in the ‘British , flag
P (1.4) ‘yellow (.),red (.) a::nd’whi:te (.) as ,we::ll

P32b
S how many ,months: () there are in a`year:
P (1.6)twe::lve

P32c
= ‘right (.o ka:y (2.1) d you ‘know (.the
`na:me (.) of any ‘prime, minister (.) of ‘Great ,Britain (.) during the ‘second ‘world
,war
P (. ) Mrs, Thatcher

P32d
(.d you know what a ther,mometer’s fo::r (.’what d you use a ther,mometer (.)
[for ]
P [{hfi?}] (.) don’t ‘know

Where Penelope believes she knows the answer, as in P32a and P32b, her pausing is extended, presumably while she retrieves the required information from memory. When she knows the solution is beyond her, she takes far less time to give a response, as in P32d (cf. Mary). P32c is interesting as, in common with other research participants, Margaret Thatcher’s name in connection with the term “Prime Minister” is retrieved quickly by Penelope. The suggestion has been made elsewhere in this study (for example, in the chapter on Mary) that autistic language users may find the collocative impulse hard to resist. Penelope’s quick response, which fails to take account of the final part of the question, may be indicative of just such a response. This type of quick collocative responding is seen again during the vocabulary subtest of the WAIS-R. The examples appear below at P33.
Rather than the definitions required by the WAIS-R, Penelope gives collocative responses in all the above cases. The switching pauses between her and the researcher are thus less than 0.5 seconds or overlap with the prior turn. As with the other study participants then, it appears that collocations can be accessed relatively easily by Penelope, and when the conversational context appears to allow her to do so, she takes advantage of this strategy. Such a strategy is essentially linguistic. Penelope’s use of it to complete an unfamiliar task such as the WAIS-R vocabulary subtest, which has both cognitive and linguistic loading, suggests a default tendency in pressurised circumstances to apply it. Thus, it is not necessarily the case that difficult questions will always give rise to extended pausing.

Extended pauses also appear in contexts which suggest they Penelope may use them to plan, as the utterances below show.

P34a

P (1.2) been ‘working at the ‘Crown ‘Court ‘restaurant () on the () w‘-wednesdays and .fridays (1.6) I ‘usually- () ‘buy- () ‘c.d.s () ‘every .friday

P34b

P .hhh I ‘usually shell the eggs an (1.7) n’ I ‘usually- () ‘meats-() () ‘meats ‘tsam and scones an-

P34c

P (0.8) n’I usually- () e:rm (3.5) ‘clear up the ‘pots () an ‘empty the ashtrays (0.6)

Planning pauses are identified as such in non-autistic speech when they appear between clauses or tone units or close to their boundaries (Harley, 1995), just as is the case in P34a and P34b. The example in P34c is slightly different in that, here, the pause intervenes
between the linguistic elements of adverb and verb, suggesting that the adverb does not belong to the planned unit, but outside it. That is, it does not need to be planned. It will be noted that the adverb in question is the formulaic “usually”. This item has a strong tendency to occur in proximity to an extended pause (note its location in P34a and P34b). This further confirms the formulaic identity of “usually” suggested above, since the environment in which it commonly occurs is one associated with planning. Its appearance here may well represent a further resource conserving strategy, similar to collocative responding discussed above. By using “usually”, Penelope is able to fill a pause with a syntactically acceptable and, in most cases, semantically feasible, unit, the production of which will also buy her additional planning time. In part, the success of this strategy is dependent on the nature of the word “usually” itself. “usually” is able to fit into the meaning frame of many utterances without drawing attention to itself, nor detracting from or contradicting the central message.

The final point to make in relation to extended pauses is that Penelope does not tolerate them to the same degree as the other research participants. P35 below illustrates the point.

**P35a**

S  (7.0) lovely
P  (.J) lovely (5.2) "yea:h"

**P35b**

S  (1.0) mmmm
P  (.} yeah (3.5) "yeah"

**P35c**

S  (2.0) I haven’t ’seen ’him on ’telly for a ’while
P  (.} no:-----
P  (4.2) ’s’got medium ’sized {OM}(.) like (.) si:ze (.) Keith Chegwin has (0.8) [like ,that:]

These three examples represent the three longest unfilled pauses in Transcription One. In none of them do the pauses belong to Penelope, since she has been the last to speak in every case. She does however take responsibility for their termination, making use of the formulaicised rising “yeah” in P35a and P35b, and reverting to an earlier and favourite topic in P35c (Keith Chegwin). While the techniques for initiating talk are similar to other study participants, that is, the use of formulaic items and the unsolicited introduction of favourite topics, this comparatively low tolerance for unfilled pauses is unique to Penelope.

The brevity of pauses in Penelope’s talk is in part this is due to her filling them (“usually” can be considered to be a particularly sophisticated type of filler), which again, marks a
departure from the other research participants. Examples of Penelope’s fillers are shown below.

P36a
P (0.8) 'n’ I usually- ()  erm (3.5) ‘clear up the ‘pots

P36b
P () I ‘like  erm () ‘John , Craven

P36c
S (2.4)  erm () ‘has ‘anybody got ’small ‘thumbs
P I ‘got sm- () I ‘got  erm (1.2) Dawn’s ‘got ‘small, thu:::mbs:

Penelope’s use of pauses is then indicative of a relatively able conversationalist. Her dislike of extended pauses and techniques for terminating them, regardless of ‘ownership’, suggest that she is able to identify and take responsibility for this aspect of conversational maintenance. The environments which give rise to her own extended pausing are comparable to both other study participants and non-autistic language users: that of high cognitive demand. The strategies which Penelope uses to overcome these points of difficulty in talk suggest effective use of the resources which she has to hand.

9.6.2. Errors and repairs: Penelope: self

Repairs are relatively infrequent in the transcripts. The researcher self-repairs and occasionally makes other-repairs. Penelope’s same-turn self-repairs are discussed here. She makes no other type of repair during the transcripts. In the same-turn repair that occurs in P36c above, Penelope attempts to revise her original utterance twice. The micropause that precedes the first attempt at revision is succeeded by the filled pause (“erm”) and then a second, longer pause, eventually culminating in successful production of the target. An interpretation of these repair attempts may lie in the apparent difficulty noted elsewhere in the study that participants have in disinhibiting production of particular forms. In some instances, the likely source of interference can be recovered from the context (cf. Mary chapter). However, in the case of P36c, the immediate context suggests no reason as to where the interference proceeds from. However, some light may be shed on this error and the subsequent repair problem, by looking at the beginning of the topic sequence which leads to P36c in P36d below.

P36d

1 P (0.7) 'hh I ‘like () ‘Noel Ed, mo:nds
2 S (1.0) ye::ah and [w- ]
3 P [,.year:]:h
4 S (2.0) I haven’t ‘seen ‘him on ‘telly for a ‘whistle
5 P () no:::
6 P (4.2) s’got medium ‘sized { 0m}() like () si::ze () ‘Keith , Chegwin has (0.8)
Penelope has herself initiated an unnegotiated single-turn topic change here in line 6. This abrupt sort of topic shift is looked at in detail again below. Our interest here, however, lies in the structure of line 6 as the topic-introducing turn. The turn pivots on the size of Keith Chegwin’s thumb ("medium-sized"). The primary linguistic message is backed up by making an overt comparison of the size of the thumb to her own, accompanied and given emphasis by the extra-linguistic gesture of Penelope showing her own thumb. Thus Penelope introduces mention of Keith Chegwin’s thumb size by making doubly explicit the connection to her own. The researcher continues the topic first initiated in P36d by asking questions which relate to the thumb sizes of other people. However, at line 6 in P36d we see that the first association between Keith Chegwin’s thumb size is made by Penelope to her own. The question which elicits the response in P36c is effectively an initiation of a sub-topic within the main topic of thumb-sizes: medium-sized and big thumbs have been mentioned, now it is the turn of small thumbs. Importantly, this sub-topic initiation is made by the researcher and not Penelope. A structural connection between the repair in P36c and the turn at line 6 in P36d, where the introduction of the main topic is made, may then be the source of Penelope’s problem in disinhibiting mention of herself. Penelope has perhaps associated first mention of thumb-size within introduction of that topic (or sub-topic) with mention or reference to herself. It can be seen (again, as discussed in the section on topic below) that Penelope’s topic introductions are rare in the transcripts and that when this does happen the topic is always a favourite one. Conversely, it can be presumed that her other co-participants rarely introduce one of Penelope’s favourite topics, these being considered obsessive and in need of suppression rather than encouragement. Hence other-initiation of one of Penelope’s favourite topics is likely to be an unusual situation for Penelope. The temptation to bring the initiation which has been accomplished by the researcher in P36 into line with her preferred structure may then effectively give rise to the error and subsequent repair difficulty in P36.

It is further noted that when Penelope produces the target utterance in P36c, the noun “Dawn” is given appropriate stress.

Same-turn self-repairs are not always so problematic for Penelope. P37a (substituting “to” for “when”) below is carried out comparatively easily.
Here, the error ("when") is repaired in one attempt with the use of a single micropause. This time the immediate context does suggest a possibility for the source of the error: the final section of the preceding other-turn. Final component, prior-turn influence is a likely source of echoic or repetitive Penelope utterances, which can only give rise to one of a limited set of possible interpretations (see Repetition section 9.4. above). If Penelope's judgement is that her next-turn intention does not accord with any of these interpretations, then prior-turn influence has to be minimised. In the section on repetition we saw how Penelope is able to manipulate this type of repetitive, prior-turn influenced utterance. Penelope's intention in P37a is evidently judged to be such that it cannot be conveyed by a repetition. A repeat, manipulated or otherwise, is not pragmatically sufficient in this case.

The repair in P37a is made subsequent to full production. That pronunciation of "when" is complete before repair takes place, suggests a delayed self-monitoring ability. The lack of stress on the replacement "to" is of further interest, suggesting that, in fact, "to" does not replace "when": "to visit people" does. This gives further credence to the presumption underpinning the discussion above: that the repaired " when" represents the beginning of a repeat of the final component of the prior turn in full, that is, "when he does that". The implication is, then, that, here, Penelope is processing, both receptively and productively, in units above the single-word level, that is, formulaically, to a degree not seen in non-autistic language. Comparison with the researcher's repairs may be useful here. These are briefly illustrated by P37ai below.

P37ai

S   (. ) an- (. ) ' what are they all ` like (0.8) °can you tell me a bit about ea-°( .) ' what they
    ` look like an wha- (. ) ' what ` sort of people they are

The two self-repairs here both include stress on the target, despite its lack on the original incomplete repaired words. It can then be assumed that the researcher is working at the single word level when she repairs here.

Near repetitions with a prior-turn association are corrected elsewhere by Penelope as the example below shows.

P37b

1 S   (1.0) was it-(. ) was it ,gree:n (. ) or was it (1.0) got ,mountains on it =
2 P                  = mount - (. )
3 ,GREEN (. ) as ,we'll
4 S   (. ) yeah ' green ,and ' mountains
5 P   (. ) ' green and ,mountains as ,we'll
In this sequence, Penelope begins to repeat the more recent lexeme, “mountains”, but curtails this and self-repairs to produce “green”, which occurs earlier in the prior turn (line 1). As with the two previous examples, Penelope uses a micropause prior to successful production of her target (line 2-3). The target lexeme is also emphasised with stress, increased volume and a succeeding micropause. Interestingly, the researcher does not interpret the repair successfully, as is shown in her next turn. The nuclear tone on “and” here suggests that line 4 is a checking utterance, with the researcher not entirely confident of Penelope’s intended meaning. Penelope responds at line 5 with an echo which has reworked tone and an additional formulaic final component. Since there is no further negotiation (line 5 marks the end of this sequence), the researcher clearly interprets line 5 as concurrence with her line 4 interpretation. The repair sequence is therefore unsuccessful, despite Penelope’s original self-repair. The repetition at line 5 has overridden any interlocutor doubt about Penelope’s intended target.

Influence of prior other turn can also be seen in the Penelope’s self-repair carried out in P37c below.

P37c

S (1.5) and what’s Karen like is, she’s all right
P (.), she all right (.), she’s all right

Here, Penelope’s self-repair centres around an echo of the final section of the previous other-turn. The echo is a completely faithful replica of its model, including tone, and as such forms an ungrammatical response to the researcher’s question. Penelope’s repair therefore appears to be syntactically inspired. The addition of the contracted copula and relocation of the nucleus turns the echo into an acceptable response to the researcher’s question. Here then, the prior turn’s influence has been successfully reworked to conclude a communicative event. P31c above is a further example of a repair with a syntactic basis. In this case, as documented above, Penelope’s repair is unnecessary, as the repaired component is grammatical and the target ungrammatical. Repairs are then, not always well motivated in Penelope’s talk.

Repetitive influence need not arise with an other turn as the source. P37d shows Penelope’s own turn giving rise to a repaired error.

P37d

1 (0.8) n’t usually - (.), e:rrm (3.5) clear up the pots (.), an - ‘empty the ash trays (.6)
2 in those bags n- (.8) n the rubbish in those bags, hhhh I usually did a lot of ‘clear-
3 (0.6), loading the ‘dishwasher
Once again, the target "loading" is given nucleic stress and is preceded by a pause. The "clear-" token at line 2 has stress only, in common with its model on line 1. This type of error may be termed perseverative rather than repetitive.

Finally, a repair apparently made on the basis of pronunciation is shown in P37e below.

P37e
P .hhh I 'usually ' shell the eggs an (1.7) n' I 'usually- (.) \{me:s\}(.) \{me?t ts\ae m\} scones an- (0.8) fruit an plain

The target utterance is "make". Neither of Penelope’s attempts is accurate, however, it seems likely, taking the realisation of the tokens "make some" as [me?t ts\ae m] into account, that Penelope’s first attempt did not include any allophonic realisation of /kl/. Hence the second realisation, while inaccurate, is closer to the target than the first. Note, here that while [?] is a possible allophone of /kl/ in some London dialects, it does not feature as such in Penelope’s accent.

Self-repairs are then, for Penelope, sparsely distributed and accomplished within the same turn (although response series discussed below could be interpreted as repairs which are carried out over a number of turns, and which arise from a perceived lack of informativeness in the original turn). They may be motivated by mismatch between form and intention, pronunciation or syntactic error, though not all pronunciation or syntax errors are repaired, and not all errors accomplish repair in accordance with standard forms. Penelope’s errors and self-repairs are indicative of influence exerted by prior-other turns or structural characteristics of the context. Perseveration may lead to error and subsequent repair, as may a heightened tendency to process in units above the single word level.

9.6.3. Interaction structure and topic

Much of the talk in Transcription One is structured in adjacency pairs, with the researcher as questioner or first part provider and Penelope as responder or second part provider. This structure is instituted right from the beginning of the transcript:

P38a
1 S well do you \textasciitilde want to \textasciitilde tell \textasciitilde me \textasciitilde something about your self
2 P (1.0), yeah
3 S (.) yeah (.) \textasciitilde anything you \textasciitilde like
4 P (1.2) been \textasciitilde working at the \textasciitilde Crown \textasciitilde Court \textasciitilde restaurant (.) on the (.) w-\textasciitilde wednesdays and fridays (1.6) I \textasciitilde usually- (.) buy- (.) \textasciitilde c.d.s (.) \textasciitilde every \textasciitilde friday (0.6) then- (.) an \textasciitilde now I'm \textasciitilde saving- (.) my \textasciitilde f- (.) to buy \textasciitilde new \textasciitilde clothes (.) \textasciitilde next \textasciitilde week
5 S (0.6),right
6 P (.) an \textasciitilde the \textasciitilde bedding (.) as \textasciitilde we'll (0.6) \textasciitilde an \textasciitilde the \textasciitilde new \textasciitilde curtain (1.1) \textasciitilde an \textasciitilde the \textasciitilde mat \textasciitilde an \textasciitilde the watch (.) as \textasciitilde we'll
7 S (.) \textasciitilde wo:w
Penelope is given the invitation to take an extended turn to talk about herself at line 1. Following Penelope’s minimal response, which accepts but does not take up this invitation, it is made more explicit in line 3. Penelope sets about providing the information in line 4. Despite her misunderstanding as to the nature of the invitation at line 2 (in itself a clear illustration of the type of pragmatic confusion well-documented in the autism literature), it is still the case that both of Penelope’s turns thus far have been second-part responses to the researcher’s first parts. Penelope’s response is continued into her next turn at line 8, with the researcher providing supportive back-channel type utterances (“right” and “wow”), inbetween and subsequent to Penelope’s contributions. Penelope’s next two turns at lines 11 and 13 consist of rising “yeah/yes” tokens, with a researcher evaluative comment “loads of stuff” intervening. Finally, the sequence is brought full circle by the researcher’s next question at line 14. The pattern of first part adjacency pair followed by response, followed by supportive utterance and/or evaluation, followed by “yeah/yes” token continues from line 14 until line 19 when the next question is posed. Thus the format for much of the interaction is established. Particular points of interest to note here concern the lack of necessity for Penelope to complete a response in a single turn. The question at line 19 gives rise to a ‘response series’ (after Zimmerman’s ‘interrogative series’, 1984), which is continued over 4 turns. The series which begins at line 4 in P38a above is completed within a shorter frame of two turns. In lines 10 and 17 of P38a above, as well as with the response series which begins at line 19, the end of the informative content of Penelope’s response is marked by the researcher uttering “wow” with rise-fall intonation. The turns which contribute to a response but do not complete it tend to be met with a “right” token by the researcher.

Thus, during the early stages of the transcription both participants contribute to a predictable structure of talk which includes formulaic-type content on both parts. The researcher’s mid-response series support utterances, here realised by “right”, and end of informative content markers (“wow” in this section) continue with different realisations throughout the transcription. P38b is from a later section of the same transcript.
Again, we see the researcher evaluating Penelope's previous response at line 1 before moving into the next question. Penelope's response is a single turn in length and hence is complete at line 2. The researcher's next turn is therefore evaluative. The question at line 5 gives rise to a two-turn response series which is divided by the supporting "right" token. Once again, the completion of Penelope's response is met with evaluation at line 11, this time realised by "that's brilliant".

The talk, then, is clearly question-led. Topics are moved into, either step-wise as in P38b or with no obvious connection to prior discourse as in line 1 in P38a, by the means of questions. An organizational problem then arises at the critical point between researcher evaluations and the setting of the next question. At these points we find the rising "yeah/yes" tokens discussed above (and found in P38a lines 11, 13, 18 and in P38b at lines 4 and 12). The discourse organizational role of these utterances, often given the function of 'turn-taking' or 'confirmer' in the repetition section above, is then seen to be that of marking the points of difficulty that are bound to exist in a discourse which relies heavily on the setting of and responding to of questions. The researcher's sequential solution to these turns is to attend to the talk by making the next conversational move. This may be a clarification of her previous move, as in P38a line 3, or the setting of another question as in P38b line 5.

As mentioned above, falling "yeah/yes" tokens tend to have a different discourse function: that of direct response to a question; this is illustrated by Penelope's turn at line 13 in P38b.

Penelope does initiate topics on rare occasions. When this happens, the content always relates to one of her favourite topics. P39 below illustrates such an occasion.

P39
Penelope’s topic initiation begins with the attention-gaining discourse device of “oooh” followed by a question. The typical roles of the talk are thus reversed here, with Penelope taking on the first-part enquiring position. Penelope also hedges and extensively pauses before actual mention of the topic. Neither is her mention sufficiently informative resulting in the researcher temporarily resuming the role of first-part provider at line 2. Her response is, then, actually delayed until line 6. The pattern here can then be seen to deviate from the sequences in which the researcher is first-part provider. This type of negotiation or other-repair does not take place in these contexts. Further to this, in the post-response slot where the researcher typically evaluates, Penelope inserts a rising “yeah”, indicative of organizational difficulty. Next-position is, then, composed of a researcher question, thus apparently attempting to return the talk to its more familiar pattern and the participants to their usual roles.

Penelope’s turns are constructed slightly differently here, however. Her responses at lines 9, 11 and 13 consist of re-worked prior-turn dependent structures as a first component, with a formulaic second component. This is rising “yeah/yes” in lines 9 and 11 and “he's a lovely man” with marked voice quality in line 13 (this last item is judged formulaic by
analogy with similarly marked utterances occurring amongst the other study participants). Penelope’s ‘ownership’ of the topic in this case may be presumed to be the cause of this divergence of pattern. The talk finally resumes its familiar pattern from line 16 onwards, with question, response, evaluation, question, response, evaluation culminating in a rising “yeah/yes” utterance at line 24. The token cannot take place between the earlier occurring evaluation and question (line 21) as these are both delivered within the same turn. This strategy enables the researcher to sidestep the critical moment of difficulty in this unusual context.

Talk with Penelope is then characterised by a question and response format with concomitant evaluation and support. Penelope’s responses may, and often are, extended over more than one turn. The researcher’s role is facilitative, controlling and maintaining of the discourse. Her control over the sequencing is such that when the structure deviates from the ‘norm’ she works to bring it back into line in as few turns as possible. Topic shift is mainly managed by the researcher using the question and answer routines as a basis. On rare occasions, Penelope may take on the role of topic initiator. In such contexts, she too makes use of the question and answer format. This is evidently difficult to maintain and the more familiar roles are soon resumed.

9.7. Summary
Penelope emerges from this analysis as having a conversational ability at odds with her linguistic competence. Linguistic competence is restricted on a variety of levels. Speech consists of regularly occurring misarticulations, not all of which can be attributed to unfamiliarity with lexis, and in the main which can be equated with simplifications usually associated with developmentally delayed speech. Syntax is seen to be simple in its range and systemically fragile. The reliance on formulas and other-models is extensive. Undoubtedly, as is shown by the WAIS-R analysis and discussion on verb phrases, these linguistic problems may, at least in part, stem from more general cognitive limitations. Given these limitations, Penelope’s communicative ability is, then, perhaps better than would be expected. She attends to particular aspects of conversational maintenance, initiates talk and self-repairs. Within the context of conversation, Penelope makes extensive use of the resources she has available to her, such that the dimensions of formulaicity and repetitiveness that exist in her language are varied, subtle and pervasive.
10. Features of Autistic Language: Comparison and Analysis of the Study Participants

10.1 Speech Characteristics of the Study Participants

The features of autistic speech as they appear in the participants in this study can be usefully divided into two types: those which do not impinge on the linguistic expression of the message and may perhaps be considered as idiosyncracies peculiar to the autistic use of speech, and those features which may lead to interlocutor difficulty in extracting the message's communicative content. These two types can be equated with the levels of informativeness and communicativeness in speech (Lyons, 1977): in the first, we are concerned with the informative level, wherein the receiver is made aware of information that the sender at no point intended to deliver, while the communicative aspect relates to the transmission of the intended message (Laver, 1991). The informativeness features exhibited by participants in this study and discussed below are intonation, utterance final features, voice quality, and speech rate, while speech errors are related to communicativeness.

Much early literature failed to identify speech as a deficient area in autism, focusing instead on peculiarities relating to the informativeness level, for instance, inflectional and prosodic abnormalities (Fay, 1993; Rumsey, Andreasen, & Rapoport, 1986; Szatmari, Bartolucci, & Bremner, 1989; Tager-Flusberg, 1989). While a speech deficit is by no means central to a diagnosis of autism, speech-related problems resulting in inadequate communicative expression have been documented in the literature (Fay, 1993; Rapin & Allen, 1987; Tager-Flusberg, 1981; Tager-Flusberg, 1996). This weakness in phonological expression has been accepted as deriving from retarded development and equated with processes that typically occur developmentally in the non-autistic population (Bartolucci & Pierce, 1977; Boucher, 1976). In particular, the errors that may occur in the speech of autistic individuals are not considered to be specific to autism or in any way different to those which occur in retarded populations (Tager-Flusberg, 1981). Phonological deficiencies in the participants of this study are considered below.

10.1.1. Speech errors

In common with the findings of Boucher (1976), errors of substitution, deletion, assimilation and addition were discovered in the study participants. Tina, Penelope, Gary and Phoebe all show such features, while they are not as prominent in the transcripts of Mary or Tom. When Wechsler scores are taken into account, this finding further confirms Boucher’s, since the two less affected participants are the two with relatively non-retarded profiles. The features of substitution and assimilation require further analysis, however, since their manifestation in the current study participants' transcripts is not entirely in keeping with normal developmental expectations.
10.1.1.i. Substitutions and assimilation

When these occur in normally developing populations they are expected to derive from processes such as stopping, consonant harmonising and context-sensitive voicing (Smith, 1973). In addition, processes which are operational at a level above the segment may have a segmental locus, for example, reduplication (Menn & Stoel-Gammon, 1995).

Consonant substitution is a fairly frequent feature in the phonology of the study participants. Targets (T) and actual utterances (AU) are shown below.

**CH1a (Ph)**

T: [wi\$ 'dadi:]

AU1: [wu\$ eri]

AU2: [wu\$ e\$i]

AU3: [w\$d 'dedi]

**CH1b (T)**

T: [su/i:]

AU: [fo f\$i:]

**CH1c (G)**

T: [sep\$emb\$a]

AU: [tse tse\$emb\$a]

While all the above examples show realisations where identical segments replace different target segments, the process differs in its details to the developmental process. CH1a shows a tap realising both the fricative /\$/ and the stop /d/, the latter being acquired early in children’s speech (Grunwell, 1981). The second attempt at the target (AU2) resolves the difficulty with the initial, developmentally more challenging consonant but continues to show substitution of the dental fricative. The substituted consonants in both AU1 and AU2 are neither simpler in articulatory terms nor earlier in acquisition terms than their targets. This pattern also occurs in CH1c where the affricate [ts] realises the three targets, /s, p, t/. Hence, while substitution in normally developing children is typically a ‘natural process’ (Edwards & Schriberg, 1983; Stampe, 1969), in that it tends to derive from phonetic motor control explanations, substitution for Gary, Tina, Phoebe and Penelope reduces neither articulatory complexity or effort, or at least not within a developmental framework.

The substitutions above resemble developmental ones, however, in that in all cases there is some obvious relationship between target and realisation: there is a conflation of manner features between the segments involved in CH1c (targets of stops and fricative; realisation by affricates), while all realisations have places which are close to their targets. A divergence from developmental tendencies is noted however, in that CH1a: AU2 shows a successful realisation of a segment with a notoriously difficult (and hence late-occurring) combination of place and manner of articulation.
CH1a-c also demonstrate the process of harmonisation. Harmonising is seen here as a more complete form of assimilation where one segment takes on the totality of features of another. From the data available here, it appears that assimilation/harmonisation works in a primarily regressive manner, with later occurring segments exercising more influence than earlier ones (this is most clearly demonstrated in CH1b). This is in accord with normal processes (Menn & Stoel-Gammon, 1995) and is illustrative of articulatory planning in advance of production. Given the autistic tendency towards perseveration, we might have expected progressive assimilation to be a feature of autistic speech. However, this does not seem to occur in the transcripts, with regressive assimilation being far more in evidence (CH1d below gives such an example).

CH1d (Pn)
T: [wenzdeiz] AU: [wedzdeiz]

Transposition of segments also occurs occasionally:

CH1e(Ph)
T: [likruf'awlsts] AU: [likrus'awlsts]

This particular variant of the target “liquorice allsorts” occurs on almost every occasion of its production. The item is formulaic and its consistently erroneous production can be compared to Gary’s “tickly feets” item discussed below.

Finally, the processing constraint which gives rise to a consonant substitution may not be particularly transparent. CH1f and CH1g are examples which show substitutions which may arise from the operation of one or more process, but in fact may derive from features of the local environment in a more general way.

CH1f(Pn)
T: [biad] AU: [biats]

CH1g (T)
T: [a6a] AU: <bloody> [a6a] <mushrooms>
T2(dialectally conditioned): ['a6a]

CH1f shows a word final stop realised as an affricate and also devoiced. Utterance final devoicing is discussed below, in relation to segment lengthening. Here, however, the word is not utterance final. CH1g shows the substitution of bilabial stop for labial velar fricative. While stopping is a developmentally natural motoric process, it is unusual in the context of the substitutions we have seen in this study. Its explanation is more likely to derive from the strong bilabial environment (both preceding and succeeding stressed syllables begin with bilabials), as well as the shared feature of labiality between the (dialectally conditioned) target and realisation. This suggests that only in a strongly biasing environment do adult phonemic substitutions resemble developmental ones.
10.1.1.ii. Deletions

Both segments and syllables can be omitted from target productions. VSla and VS1b (in the section on vowel substitution below) show omission of segments, as do D1a, D1b and D1c below. Alternatively, D1a may be an example of vocalisation of a post-vocalic lateral. Such an explanation would be in accordance with Penelope’s regional accent. Segments may also be deleted word initially, usually in echoic utterances which have been truncated. This is not always the case as D1 below shows. Here, none of the deleted segments are initial. Vowels can also be deleted.

**D1a (Ph)**

T: [fλα Ant ‘καλ] AU: [fλαniκαλ]

**D1b (Tm)**

T: [δειν ‘αναν] AU: [δειναν]

**D1c (Pn)**

T: [θαμ] AU: [θαμ]

Syllable deletion occurs in D1b above and elsewhere in the transcripts:

**D2a (Pn)**

T: [zaui:] AU: [za]

**D2b (Ph)**

T: [γαυι τα δε ταλατ] AU: [γαυιταλατ]

Deletions are not always simple excisions: they sometimes give rise to productions which contain ‘blends’ of target segments as D2b illustrates. The examples above demonstrate that deletions may affect almost any speech unit in any position. Deleted syllables are generally unstressed rather than stressed, although this could be theoretically related to any number of factors ranging from perceptive deficiency to gestural underscaling (Weismer, Tjaden, & Kent, 1995). Hence, the pattern of deletions is neither indicative nor counter-indicative of a pattern of delay-type errors.

10.1.1.iii. Vowel substitutions

While consonantal errors are mentioned in the literature on autistic speech production, vowels are not. This omission extends generally to the disordered literature as a whole, and proceeds in part from the impossibility of producing vowels outside the vowel space, hence while a particular production of a vowel may not conform to dialectal or variant expectancies, it is extremely unlikely to lie outside the possibilities of normal speech (Ball, 1989). Further, vowels may vary between idiolects and varieties to a considerably greater degree than consonants (Cruttenden, 1994; Hughes & Trudgill, 1996), and are less important in the recognition of a specific lexeme, the consonants bearing most of the semantic load in this respect (Harley, 1995). The features noted in the autistic productions seen here may, then, not be specific to the study participants, nor to adult autistic language users nor even autistic language users in general, but may exist as unreported features of the
vowel productions of developmentally non-normal populations. The first vowel feature discussed here is neutralisation, which has been identified as a developmentally occurring process (Smith, 1973), and concerns substitution of a vowel phoneme by the central, unstressed /a/.

VS1a (G)
T: [təp] AU: [tə]

VS1b (Pn)
T: [ʃɛŋjʊlə] AU: [ʃɛgələ]

Note that VS1b also includes the feature of [j]-dropping. Such a substitution is of obvious benefit to its producer. The articulation requires a minimum of effort and is neutral with regard to succeeding articulatory gestures, whilst still allowing interlocutor recovery of the target. Schwa substitutions have been seen to account for a majority of infant vowel forms (Kent & Miolo, 1995) and hence are known to be a means of successful compromise between simplicity of form and facilitation of communicative intent. A somewhat more difficult process to explain is that of vowel raising. This feature occurs in all of Gary’s formulaic productions of “tickly feets”, in Penelope’s speech, [dɪsk] for the target “desk” being an example, and also in Phoebe’s speech exemplified by the erroneous production of the target “daddy” at CH1a above. Consistent misarticulations also occur with Phoebe’s “yes” tokens and, prosodically defined, Penelope’s “yeah/yes” tokens.

The consistent misarticulations which occur with formulaic items such as “tickly feets”, suggest a type of preservation of form consistent with the “functionally opaque” unusual echoes in Local & Wootton (1995). Both segmental and suprasegmental features are reproduced with an unusual amount of dependence on the model utterance. Below, following on from Local & Wootton, an attempt is made to locate the functional significance of such forms within a discourse model of autistic language. These speech errors are, then, conventionalised in the autistic repertoire. Rather than suggesting difficulties which require a translation or gestural/action explanation (Laver, 1991), they relate to formulaicity in the same way that prosodic repetition in formulas does.

Speech errors which are located in non-formulaic utterances may have an explanation alternative to one of developmental delay. It has been noted that these errors only accord superficially with those that we expect in normally developing children’s speech. In fact, they bear greater resemblance to the types of error associated with motoric speech disorders (for example, dysarthria and apraxia) where there is a gestural scaling difficulty (Weismer, et al., 1995). Whether such a difficulty is likely to arise from a translation-type problem (that is, essentially neurocognitive/neurolinguistic in nature), or a gestural deficit, stemming from neuromuscular or even physiological origins, is partly a matter of interpretation or theoretical interest. In fact, the data suffers from a deficiency of detail in this respect, since acoustic measures are not available. However, the critical division between speech errors
with a formulaic component and speech errors that have a more productive basis is an important issue in the study of dimensions of productivity and repetitiveness in autistic language, which has further implications in the discussion of linguistic processing in this group.

10.1.2 Segment lengthening and devoicing
Utterance final lengthening and devoicing of segments also takes place. The devoicing here is likely to arise from the unusual length of some final segments which allows normal pause voicing off-set to become clearly audible (Laver, 1995). Devoicing does not occur systematically in the transcripts unless the segment in question is extended and utterance final. Devoicing of segments is therefore a function of durational aspects of autistic speech.

The lengthening of segments utterance-finally accords with non-autistic signalling of a turn-transition point (Langford, 1994). However, as the examples below indicate (DP1), often the extension of segments is in excess of what we would normally expect in this type of environment and for native speakers of British English (Laver, 1995; Smith, 1994). DP1d below shows an utterance-final vowel extension. This may occur in place of final segment extension if the final segment is not a continuant. Affrication (CH1f above is an example) is also an option if the final target segment is a stop.

DP1b (T)
/li:::ne[z:::s:::]
DP1c (G)
[ "su/f:::][:::]
DP1d (Pn)
[like th@ct]

Durational extension of segments in children's speech is generally associated with a maturational neuromotor hypothesis (Baltaxe & Simmons, 1985; Smith, 1994). However, the extent of segment lengthening in the transcripts is far in excess of what we would expect to 'see' in children's productions. While neuromotoric control deficiency may be an explanation, this would suggest that such a deficiency was limited to duration control only, since speech errors are not so pervasive in the data as to suggest a global motoric impairment. In fact, the possibility of a problem in neuromotoric control with relation to duration is in keeping with a perseverative cognitive profile, suggesting that duration phenomena may also have a relationship with formulaicity.

10.1.3. Intonation
The intonation peculiarities of autistic language users are well documented and have been referred to extensively above. Often, the literature is quite vague about the precise manifestation of the prosodic and intonation deficit in autism: terms such as "lack of vocal inflection" (Rumsey, et al., 1986: 776), "formal intonation" (Ghaziuddin & Gerstein,
1996: 589) and “monotony” (Fay, 1993: 199) are used, not always with further clarification. It has been suggested that marking primary sentence stress is not more deficient in autistic populations than it is in control groups, nor is it the case that intonational and prosodic peculiarities proceed from a receptive deficiency (Tager-Flusberg, 1989). While prosodic and intonation peculiarities are certainly not confined to the autistic spectrum (cf. Balan & Gandour, 1999, for example), the persistence of this feature into adulthood as well as its prevalence within the autistic spectrum population makes it a predictable feature of autistic language. Since acoustic measures are not available for the data, the discussion of these features cannot be extensive, although the implications for further research are noted.

In relation to the study subjects, the standard findings are largely reproduced: shallow intonation contours, narrow vocal ranges and odd prosody are prevalent throughout the transcripts. With the single exception of Gary, pitch movement is not consistently used to mark nuclei in tone units (Tom, Tina, Mary, Phoebe and Penelope). Tone units may also sound monotonous due to a restriction of pitch movement outside the nucleus. Intonation may also be used oddly both at word and sentence level as IP1a and IP1b show below.

**IP1a (Pn)**

key worker

**IP1b (Ph)**

go and get some more yeah

The possibility has been discussed in relation to individual participants above, that the absence of pitch contour to mark linguistic stress is compensated for by alternative prosodic aspects such as amplitude and extension of vowels in stressed syllables. This is also suggested in the literature (Lovaas, Schreibman, Koegel, & Rehm, 1970). The complete absence of any marking of nuclei is, in fact, quite rare in the transcripts. In this respect, the findings compare with those of Baltaxe & Guthrie (1987), in that identification and marking of appropriate primary stress loci does not appear to be the source of the intonational deficiency in autism. Since this is essentially a linguistic rather than an affective phenomenon, a tempting interpretation is that the observed intonation impairments have an essentially emotional source, thereby concurring with Tager-Flusberg (1989). However, the widespread occurrence of utterances such as IP1a and IP1b prevent this interpretation, since the tone errors that do occur are linguistic in nature: a high rise on clause final syllable (IP1b) is not usual in British English unless specifically marking the discourse function of checking a prior other-contribution, while compound nouns have an accepted contour to which Penelope in IP1a does not adhere.

The problem with these examples, as with others, is that the use of tone is inconsistent. Phoebe does not use high-rising tone in similar utterances in such a way, nor does Penelope consistently misplace the stress in the item “key worker”. This variability in use of tone
alongside fairly consistently marked primary stress is perhaps suggestive of limited productive competence of linguistic intonation. While the most overt and linguistically significant uses of tone are incorporated into speech, peripheral uses are more problematic.

Gary is unlike the other study participants in that his utterances do not show reduced or absent tone contour. In fact, Gary’s use of prosodic and intonation features is more varied than is the case for any of the other study subjects. For example, the pitch range that typically accompanies “ticky feet” extends far beyond his usual speaking range, while prosodic resources include use of breathy voice, whisper, low amplitude and particular voice qualities associated with formulaic productions. This is not to suggest that Gary’s use of tone and prosody are within acceptable parameters (Gary’s speech gives the impression of being animated but odd), but rather that he attends to matters of prosodic and intonational manipulation which other participants do not. Gary uses a great deal of formulaic language (‘frames’ and ‘frozen’ sequences) and there is a strong suggestion that his data incorporates a high degree of delayed as well as the more easily apparent immediate echolalia. Since he is noted as being a competent mimic of others, it seems likely that his relatively plastic intonation relates to this ability, as well as to the high degree of modelled utterances that make up his talk. That is, the linguistic sequences which Gary imports into his talk are inclusive of prosodic features, and such ‘imports’ are more pervasive than synchronic analysis alone can demonstrate. A tendency to faithfully mimic intonation is not indicative of a high degree of linguistic competence: Cooper and Curcio (1979, cited in Baltaxe & Guthrie, 1987; Tager-Flusberg, 1981) and Local & Wootton have noted the association between prosodically faithful echoes and low linguistic ability. While Gary’s intonation and prosody give an overall impression of a relatively skilled interactant, the degree and extent of repetitiveness in his talk suggests the opposite.

Perhaps the most significant point to consider in relation to intonation is its association with formulaic items. Tone contour can distinguish between productive and formulaic use of a lexical item (as with Penelope’s “yeah/yes” and Phoebe’s “yep” tokens). A dichotomy then exists here, in that often immediate echolalia is prevented from being defined as pure echolalia simply because there has been reworking of the intonation contour. On occasion, tone in echoic utterances is even sufficiently remodelled to allow for an interpretation which equates with non-autistic uses of conversational repetition (cf. Johnstone, 1994). On the other hand, formulaic utterances can sometimes be identified as such by the faithful reproduction of their tone contours.

The intonational deficit in autism is not necessarily then attributable to neuromotoric explanations, while its existence as a feature of even linguistically able subjects such as Tom makes an explanation for it based on impaired cognition unlikely. In addition, hemispheric explanations of intonation impairment, which link neatly with the emotional deficit in autism, have recently been called into question (Balan & Gandour, 1999).
On the one hand, then, intonation is a clumsy tool in the talk of the study subjects: often absent, reduced, or at odds with the linguistic message. On the other hand, it can be the only reformulated component in an echoic utterance, indicating conversationally competent repetition as opposed to minimally interactive turn-taking echolalia. A particular tone contour may also be a predictable and reliable indicator of a formulaic usage of a particular lexical item within an individual’s repertoire. The issue of where intonation sits within the cognitive and/or linguistic accounts of autism is, then, one of great complexity, and apparently no nearer resolution now than before.

10.1.4. Other prosodic features

Use of peculiar voice quality is associated in the data with particular points in the discourse. Special voice quality typically marks a problematic point where the study participant is uncertain or unwilling to provide the next conversational move: Tom uses whisper or low volume, Tina uses creak, Phoebe uses low volume. Gary’s use of marked voice quality is both more diverse and more widespread than the others, and is best regarded as marking a move away from current topic. Mary, who, it will be noted, has a particularly restricted use of pitch movement in her speech, does not make use of any special voice quality at any point during the transcripts. Penelope uses creaky voice only in relation to her favourite topic, Keith Chegwin. In addition, raised volume occurs at appropriate discourse points (overlaps, utterance initially), although may be somewhat loud for normal conversational expectancies. This is in accord with other findings on intensity in autistic speech (Baltaxe & Simmons, 1985). Peculiar voice quality, like intonation, may also regularly accompany formulaic items.

Speech rate can be elevated in participants’ speech. Tom, Mary and Phoebe all have occasional recourse to rapid speech, often resulting in cluttering (Crystal & Varley, 1993). With both Mary and Tom, fast speech is related to self-initiated mention of favourite topics, while for Phoebe, to formulaic productions. In a sense, these two contexts can be equated, since extended turns on any topic are not part of Phoebe’s repertoire: her reference to favourite items or obsessive interests is always in the context of comparatively low component turns, although these must be regarded in the context of the high frequency of minimal or zero responses which make up a large part of her talk. Both Tom and Mary however, use high component turns to discuss favourite or obsessive topics.

Prosody and intonation are generally considered together as two aspects of essentially the same phenomenon in discussions of autistic and non-autistic language alike, with prosody having superordinate status. This conflation is natural and holds good for the study participants insofar as there exists a similar relationship between the two and formulaicity. However, while intonation is a complex feature in autism, the manifestation of which is strikingly similar between subjects, other aspects of prosody are variable between subjects.
and have been seen to have sequential significance. Sequential significance, while normally associated with intonation in non-autistic speech, is unquestionably absent from intonational uses by these study participants.

Use of peculiar voice quality, speech rate and amplitude variation, while interesting features of autistic speech, do not present us with the same set of explanatory inequivalences that intonation does. In fact, it seems clear from the above discussion, that the former features are used as compensatory mechanisms for the deficiencies that proceed from the latter. Intonation and other prosodic aspects are thus inextricably linked, with autistic language users as with others. Their separation is suggested here not as one with a realistic basis, but as a useful way to consider the different directions in which each operates. Prosodic variation can then be explained in terms of intonational compensation, with the complete prosodic unit operating as a whole and closed system. Thus deficiencies in one sub-component cannot help but give rise to adjustments and re-calibrations in another. Prosodic peculiarities are then secondary to and dependent upon intonational impairment. The original question relating to the genesis of the autistic intonational deficiency does, however, remain.

10.2. Syntactic Features of Autistic Language
Interest in the syntax of the study subjects proceeds from two observations which can be made on the transcripts of all the participants: first, there are many utterances containing syntactic errors, and second, formulaicity has an interaction with structure.

While the realisations of these features are not always identical between participants, in many cases there seems to be a clear relationship between them. The discussion below attempts to provide a framework in which these related features of syntax can be understood. One of the main difficulties in the consideration of this area is that, much of the time, talk is avoided altogether by the participants. Even the most voluble has extended sequences characterised by no talk at all or minimal responses. In probable relation to this, there is also a tendency for the autistic language users to ‘truncate’ utterances, meaning that early occurring elements in the clause are simply excised. Since early occurring elements typically carry little new information (Bloor & Bloor, 1995), this feature does not impede comprehension of the message. In non-autistic language such a feature may be regarded as a stylistic variant or, occurring more pervasively, be characteristic of an idiolect. Since early occurring clause elements are minimally informative, they can be considered to be non-important, and hence less valid, cues within the Competition Model framework, discussed further below (Bates & MacWhinney, 1989; MacWhinney, 1987).

A further issue which arises relates to performance characteristics of non-autistic spoken language. It is not only autistic speakers who produce non-syntactic utterances or who make use of formulaic language. The burden exerted by on-line processing is evident in the false
starts, hesitations, mazes etc. that fill everyday non-autistic speech. Hence, the suggestion here is not that the syntax of autistic adults is subject to pressures qualitatively different to those of normals, but that the autistic use of syntax exemplifies the greater degree and extent to which this pressure is exerted, and the particular strategies employed to minimise its effects.

10.2.1. Syntactic errors
Without exception, syntactic errors are made by all study subjects. These errors seldom affect the communicative force of an utterance since word order is not implicated. Particular tendencies exist across all participants in telegraphising and truncating utterances (see section above). Both of these operations involve omissions; the former of function words, and the latter of early occurring items in a clause. All participants, even the more voluble, engage in minimal response routines or utterance avoidance at some point in the transcripts: syntactic omissions which do not affect the transference of message-content have an obvious relation to this feature. Omitted items may be non-head constituents of any phrase: determiners from noun phrases and auxiliaries from verb phrases are typical. The exceptions to this are prepositional phrases where the head may be missing, and in cases where the verb phrase consists of the copula and therefore constitutes a complete phrasal omission. At the inter-clause level, omissions can also be thought of as occurring, since clause-combining may be accomplished by simply juxtaposing clauses. Once again, developmental correspondences here are hard to ignore.

Errors can occur at phrase or clause level and are more or less prevalent throughout the transcripts of a particular participant. Errors may occur in agreement between units, for example, determiners with nouns and subjects with verbs. Tense and aspect may not be marked in verbs or marked inconsistently with surrounding context. Catenaive constructions may also give rise to problems. Pronouns may be marked incorrectly for person or number or have no clear antecedent. Prepositions may be erroneously used and for all participants seem to have a restricted range of occurrence; for example, Penelope only uses prepositions non-formulaically in adverbial phrases, while Tom has a preference for “in”. Transpositions sometimes occur but less so than substitutions or omissions. Typically, then, syntactic errors involve omission or substitution of free or bound morphological constituents, and to a lesser degree, transpositions.

Despite the above, the errors made by the study participants are in fact only superficially similar to developmental ones. Even participants with relatively impaired cognition are able to correctly use constituents such as modals and auxiliaries in complex verb phrases, while developmental errors typically involve the systematic and gradually decreasing avoidance or substitution of particular morphemes, which can be related to their saliency and relational complexity (Brown, 1973). Thus, were the cause of errors in the data related to a developmental immaturity, one would expect the less able participants to systematically
avoid morphemes which are late in the acquisition process. No such pattern obtains however. Indeed, the pattern of errors corresponds more closely with those seen in agrammatic profiles. Such profiles are typically associated with a diagnosis of aphasia, in particular Broca’s (Blackwell & Bates, 1995; Butterworth & Howard, 1987; Miceli & Silveri, 1989), where language is found to be halting and shows omission or substitution of functors in favour of more canonical or uninflected items (Blackwell & Bates, 1995: 228).

The ‘closed class hypothesis’ (Friederici, 1988; Garrett, 1992, Prather et al., 1991, cited in Blackwell & Bates, 1995: 229) suggests that it is likely that agrammatism proceeds from an output processing deficiency of closed-class items with spared underlying competence. Other research considers the performance of non-aphasics with no history of agrammatism on production and comprehension tasks when engaged in activities loading on general cognitive resources (Blackwell & Bates, 1995; Butterworth & Howard, 1987). Such studies demonstrate clear similarities between non-aphasic and agrammatic performance. These results may be interpreted within different frameworks dependent on particular theoretical perspective. In any case however, they are suggestive of a non-modular account of natural grammatical systems. This position is further substantiated by McClelland & Rumelhart’s (1986) and Rumelhart and McClelland’s (1986) work with neural networks, which finds that deficits with a modular appearance can arise from damage to networks without modular architecture. Hence, there is no theoretical necessity to postulate a separate grammar module, damage to which results in agrammatic performance (Elman, Bates, Johnson, Karmiloff Smith, Parisi, & Plunkett, 1996). Such performance seems to arise simply from a decreased availability of general cognitive resources.

The kind of linguistic units which are vulnerable to omission and substitution within the studies mentioned above are precisely those which we have seen affected in the autistic research participants in this study. Likewise, the normals in the Blackwell & Bates study, as with the autistic study subjects, showed a tendency to transpose units far less frequently than to omit or substitute them. These features of agrammatism correspond to features of English, where word order is more important than inflections for determining syntactic relations. As above with the feature of truncation, the Competition Model framework enables us to interpret this in terms of validity of linguistic cues (Bates & MacWhinney, 1989; MacWhinney, 1987). In English, the less salient cue of inflection is more likely to suffer in agrammatism than the more important one of word order. This provides us with an explanation for the relatively spared communicative force of the agrammatic language in the autistic study participants. The most important cues that we use to determine syntactic relations (in the case of English, word order) are far less vulnerable to error than the less important (inflections), just as they are the first to be worked out by normally developing children. We are hence provided with an explanation for the superficial similarity between the grammar of the study participants and children, as well as accounting for the relative
success in message expression, without having to address issues of communicative competence.

In extending the Competition Model to fit with generative theories, Blackwell & Bates favour the 'trace deletion hypothesis' (Grozdinsky, 1986; Hickok, 1992) in accounting for the features of the syntactic deficit, which is appealing in that it provides a generative account for agrammatism derived from unimpaired language, within the wider context of cognitive resource limitation. While priming studies have shown that there appears to be some psycholinguistic reality to the notion of trace deletion in aphasics (Zurif, Swinney, Prather, Solomon, & Bushell, 1993), there are no known studies of autistic language users which have explored this area. The similarity in the dimensions of agrammatism between aphasics and autistic language users would seem to imply that this might be an area worthy of investigation. Trace-deletion could not, of course, offer an explanation for syntactic features of autistic clauses such as truncation, but may suggest why it appears that particular types of complexity give rise to problems, over and above a somewhat generalistic one of resource deficiency. Generatively speaking, pronouns require co-indexing in a similar way to traces. Since these are clearly problematic for autistic language users in the data as in the literature (Fay, 1971; Fay, 1979), both synchronically and developmentally, investigation of their realisation and comprehension would certainly be warranted.

A further deficiency in the output of agrammatics that has possible relevance to this study lies in the self-monitoring ability of this group (Levelt, 1989). This is a possible area of deficency which may also be relevant to output speech mechanisms, discussed above. The infrequency of repairs or overt corrections in the data suggests that both at the level of speech and syntax, self-monitoring may be faulty within autistic processing.

A cognitive resource explanation of agrammatism corresponds with the observations made of individual study subjects' performance during taxing activities such as the vocabulary subtest of the WAIS-R. Subjects with relatively able profiles and 'good' language, such as Tom, become dysfluent in these contexts. The Competition Model allows us to account for this within a framework devised for normal language, and without having to postulate a grammar impairment necessarily separate to the rest of the language module. The exact linguistic specification of the impairment is impossible to determine without more detailed investigation, in particular, of receptive competence. Since resource limitations and the linguistic details of aspects of competence are not mutually dependent, it is still possible to discuss the former without making any theoretical commitment to the nature of the latter. The different grammatical profiles of the various study participants are then dependent on two factors: (1) the amount of cognitive ability which is present in the first place, or 'resting level' of cognitive capacity; (2) the task which the study participant is involved in at the time of the agrammatism. The WISC-R and WAIS-R tests were incorporated into the study design in an attempt to measure (1). However, the problems with administering and
obtaining reliable results within the autistic group (mentioned above in individual chapters) leave us with limited confidence in the measures obtained, when they were obtained. (1) is also presumably likely to be affected by general cognitive factors such as attention, or problems in the peripheral perceptual systems such as hyperacuity. These may determine the extent of resource which is available for allocation to particular activities, over and above the ones that are undertaken to cope with predictable and routine matters on a daily basis.

The Wechsler tests have been mentioned as evidence for (2) inducing agrammatic performance. Conversation and in particular, questioning is also likely to tax the autistic study participants. Indeed, since interaction is in itself a problematic feature of autism, a baseline occurrence of errors elevated beyond the frequency of normals would not be outside expectations. This certainly conforms with the relatively informal account of syntactic errors we have noted thus far, and would certainly represent a potentially fruitful area for further research.

### 10.2.2. Syntax and repetitiveness

A third factor may also have a bearing on the pattern of syntax errors: that of formulaicity, or repetitiveness. All the study participants make use of formulaic and repetitive strategies, particularly so in the context of a cognitively demanding environment. The dimensions of use, however, vary. Phoebe demonstrates repeated use of particular sentence structures in company with restricted lexis in relation to favourite topics. Mary demonstrates a preference for canonical structures, particularly in relation to the verb "saying". There is also an association at the clause level in her data between clause function and thematic roles. Penelope uses formulas in company with oft-used structures, and has a tendency to accomplish difficult discourse activities by using a familiar structure. Tom shows a tendency to use similar structures in relation to the same topic in different conversations. Gary and Tina both make use of frames and formulas, although their genesis is difficult to determine.

In dealing with syntactic repetitiveness, we must address an issue mentioned briefly above in relation to syntactic errors. The extent to which the study participants differ from normals has to be determined. Informal observation suggests that structural repetitiveness of the type that Tom displays may be fairly routine in non-disordered populations. Conversely, experiments dealing with verbatim recall report findings that imply a transience in memory of structure in favour of lexis (Sachs, 1967). More recent findings demonstrate a clear tendency for a syntactic structure to be repeated once it has been produced (Bock, 1986). Indeed, Bock's findings suggest that the influence exerted by a preceding structure may be greater on an utterance than that of the conceptual or ideational input which gives rise to it. This is explained in terms of heightened activation of the procedures which result in production of a structure: the more a structure is used, the greater the likelihood of its subsequent use. Such a mechanism is considered to operate both receptively and
productively, so that whether a structure is heard or uttered should make no difference to the process. It is important to note that the processes of production of syntactic forms are repeated here rather than the forms being stored in an abstract representation.

The details of syntactic repetitiveness in the data accord quite neatly with the above. A strong tendency for local context to influence structure formation has been noted in the participants, just as it was in the Bock study, as well as in Weiner & Labov’s 1983 and Levelt & Kelter’s 1982 work. Likewise, a specific topic co-occurring with a similar structure on each occasion of mention can be explained in terms of the conceptual requirements of the topic operating in tandem with the influence of the form of the utterance on previous mention. In this case, episodic memory may also be exerting some influence. The use of the formulaic resource effectively diminishes reliance on pure productivity and is bound to increase fluency.

The repetition of formulas (for example, “yes” and “as well” tokens in Penelope’s transcripts; “yes” tokens in Phoebe’s transcripts; “can’t/don’t remember” tokens in Tom’s transcripts) is, however, different. These formulas are more like the idioms described by Fillmore, Kay, & O’Connor (1988) and to which Bolinger orients (1976). Within the framework suggested by Locke (1993) and developed further by Wray & Perkins (2000), these formulas can be understood as emanating from distinct neural mechanisms to those from which productive, analytic language proceed. Developmentally, this distinction is described by the terms ‘gestalt’ vs ‘analytic’. While gestalt language represents the output of the ‘specialization in social cognition’ mechanism (SSC), analytic language proceeds from the ‘grammatical analysis module’ (GAM). Normal development engages the child in processes varying in dependence on each of the mechanisms, eventually resulting in an adult language in which the two establish some sort of equilibrium. This equilibrium resides in the systems’ typical and default operations. Both mechanisms are simultaneously available, but, in mundane environments, involve perhaps a more extensive use of ‘top-down’ formula processing as opposed to ‘bottom-up’ grammatical analysis (Wray & Perkins, 2000: 21).

The advantage of such an account is that it places formulaic language at the heart of grammar; an aspect which is absent from traditional generative models (Fillmore, et al., 1988). The dynamic, semi-productive nature of autistic formulas is also entirely consonant with such an account. Far from being an aspect of autistic language which differentiates it from non-autistic language, autistic formulaicity can be seen as the preferential use of a normative operation. The particular features of the autistic formulas need addressing however, in that there is a clear mis-match between them and their non-autistic equivalents. This derives in part from the frequency of their occurrence alongside their predictability of form. Taking the “can’t/don’t remember” token as an example from Tom’s transcripts, it occurs 7 times in the first 118 lines of Transcription 2, as well as at intervals throughout all his transcripts. While there is obvious productive manipulation of this form, this is restricted
to, in this case, two lexical possibilities. To some extent with this case, and even more so in relation to the formulas of other study participants, lexical formulaicity is tied to a set of co-occurring, specific prosodic features. There is also a restriction in the range of forms in the repertoires of the autistic language users, as well as an apparent identity of discourse function for many of the formulaic productions in the data.

While all of the above could be considered relevant to an analysis of non-autistic formula use, it is suggested here that together, these features suggest a certain inflexibility in the switching between the SSC and GAM mechanisms. Productivity can and does operate in autistic formulas, so that, for example, the “tickly feet” token can be adapted to “tickle Malcom’s feet” in an appropriately eliciting context. However, the consistent prosodic and segmental features of the form suggest a productive limitation not typical in non-autistic repetitions of formulas or frames. Likewise, specific discourse contexts in non-autistic talk may give rise to the use of predictable formulas (“good morning” or “once upon a time” (Fillmore, et al., 1988)), but these tend to be both conventional and relatively specialised to particularly routinised environments (greetings or story-telling). Autistic formulas have been seen in the data to relate to problematic sequences of talk or ones in which the autistic language user has little interest in taking part: environments which may present the non-autistic speaker with a variety of options. In part then, autistic formulas may derive some of their characteristics from the pragmatic limitations traditionally associated with autistic language. Since Locke associates formulaicity to the SSC mechanism, this observation is entirely consonant with the notion of language in autism suffering as a consequence of restricted social ability. The converse is also possible (that the restriction is primarily linguistic), but less consistent with the data. The range of formulas and more productively-defined frames which exist in non-autistic language suggest a sensitivity to social context which autistic language-users may be unable to access. Conflation of different social situations may then lead to limitation of formulaic use. Autistic formulaic restriction may not, then, be necessarily linguistic in nature but rather social. This, in company with a lack of flexibility operating between the SSC and GAM mechanisms, gives rise to the particular manifestation of formulas and frames in autistic language.

10.3. Conversation

Discourse and conversation impairment in autistic spectrum disorders have been well documented in the literature (Baltaxe & D'Angiola, 1992; Baltaxe & D'Angiola, 1996; Miller Wetherby, 1986; Tager-Flusberg, 1981; Tager-Flusberg, 1993; Tager-Flusberg, 1995; Tager-Flusberg, 1996). Earlier studies (for example, Baltaxe & D'Angiola, 1996) tend to focus on discourse cohesion using the Halliday & Hasan framework (1976). Later work reflects the growing interest in conversation analysis of disordered talk (Dobbinson, Perkins, & Boucher, 1998; Willcox & Mogford-Bevan, 1995). The focus of analysis in this study was mainly conversational.
10.3.1. Question sequences

The subjects all exhibit problems in talk relating to initiations, turn-taking, repairs, topic shift and maintenance. Further to this, there are particular structural patterns that recur throughout the data, for example, the question-response-evaluation sequence that characterises much of the talk between researcher and participant. This pattern is reminiscent of the initiation-response-feedback sequences that occur between caregivers and children, at home as in classrooms (Ervin-Tripp & Strage, 1985; Sinclair & Coulthard, 1975), and hence can be understood as a typical sequence within talk between participants with distinct competences. These sequences are indicative of the mainly facilitative role taken by the researcher which manifests in various ways throughout the talk.

During the question-response-evaluation sequences, it is of course the researcher who provides the first part. Researcher responses are not met with evaluations from the study participants: hence study participant-initiated question sequences are dyadic compared with triadic researcher-initiated question sequences. Questions by the autistic subjects are relatively rare in the transcripts. Tom uses them occasionally to move an existing topic forward; Mary and Gary use them more frequently, in particular, lines 40 - 107 of Mary: Transcription One (29.3.95) has a long sequence of questions from Mary. The functional range of Mary’s questions includes clarification, information and action requests, and as such show some orientation to earlier discourse. However, they do not typically function to build the discourse. Information and clarification require second part responses only and do not project more extended sequences forward into the upcoming talk, while action requests require responses entirely external to the discourse. Gary’s questions also function as clarification requests, mainly in the context of clear misunderstanding between participants (lines 12 - 26, Gary Transcription One: 25.5.95). Gary also uses questions with a formulaic component (for example, “would you arrange it for me”) which function to further the topic, and as action requests (for example, “can we do that (.) silence”). Tina attempts to take the role of questioner from the researcher in response to extended question sequences which have researcher initiation. However, the function of these is difficult to determine given the formulaic nature of their content. Phoebe’s questions are also formulaic (for example, “d’you know what sweets I buy n e:rr [like ns so ystg]”). Since she doesn’t wait for a response, their status as questions is secondary to that of formulaic favourite-topic-introducing. Penelope is alone in using a question to apparently negotiate topic introduction (“oo::h (.) do you (.) like e::rm (0.9) do you like e rm (1.0) whassi name (.) Keith”). As with all topic introductions by the study participants, the topic in question is a favourite one. This question may also have a third part evaluation (“(0.6) yeah:”). However, it will be noted that this is realised by a formulaic rising “yeah” token. The interpretation of it as an evaluation can, then, only be tentative.

Study participant questions are, then, infrequent, dyadic and limited in functional range throughout the transcripts. With the exception of the two more able participants, Mary and
Tom, they rarely cohere to prior discourse, neither do they typically move talk forward: they are most usefully characterised as 'closed exchanges' (Willcox & Mogford-Bevan, 1995) which show little cohesion to surrounding talk. This absence of contingent talk is noted as occurring in young children (Keenan & Shieffelin, 1976), younger autistic children (Tager-Flusberg, 1993) and language impaired adults (Perkins, Body, & Parker, 1995) and is also relevant to topic, discussed further below. Function may also be complicated by issues of formulaicity and favourite topic introduction. The lack of questions to negotiate topic introduction is also particularly noteworthy. The single instance in which Penelope does this accords with other relatively co-operative features of her talk, for example, low tolerance of extended pauses, and marks her as conversationally distinct amongst the study subjects. Topics are far more often introduced formulaically or with declaratives, neither of which demand a high degree of linguistic sophistication (Johnston, 1985; Willcox & Mogford-Bevan, 1995). This is perhaps most surprising in relation to Tom, whose productive language is suggestive of comparative competence, but perhaps serves to emphasise the division between conversational and formal linguistic ability.

By comparison, researcher questions are frequent and facilitative. They are used to present new or ancillary topics for talk or to maintain ongoing topics. Often the responses made by the study subjects are minimal, formulaic or absent altogether. The intended function of maintaining and furthering talk is hence not entirely successful. Indeed, as the analysis of researcher questions in relation to Tom’s transcripts indicates, questions do very little to maintain a study-participant favourite topic. Often then, researcher questions also form closed exchanges, despite their intended function.

10.3.2. Topic
As mentioned above, negotiated topic introductions are exceptional in the transcripts. Topics are typically introduced abruptly (usually within a single study participant turn) and often have some formulaic component. The researcher, in keeping with the facilitator role, invariably accepts the topic and attempts to maintain it using questions and supportive back-channel utterances. Topics which are introduced by the study participants are invariably favourite ones, typically reflecting an obsessive interest, for example, sweets and drinks for Phoebe; Keith Chegwin for Penelope. A circular topic movement is noted in Mary’s talk, whereby there is a stepwise movement away from the favourite topic which is then abruptly re-introduced. In fact, this same pattern occurs with all the study participants to some degree, in that the same topics are re-introduced throughout the conversation. The notion of circular topic movement does not seem appropriate where participants contribute little to the content of the intervening talk, however. Only Gary seems to demonstrate a comparable circularity, with the re-introduction of the Duncan Novell topic in Transcription Two (23.8.95). Frequent re-introduction of topics is noted in the literature on language-impaired children (Edmonds & Haynes, 1988) as well as in adults with acquired disorders (Perkins, et al., 1995). Topic bias is also a recognised feature of autistic language (Frith, 1989a). The
data shows a clear link between topic and formulaicity which may arise from a natural association between a given topic and similar language (Perkins, 1999). Memorized sequences enable a speaker to maintain fluency, and are especially likely to occur when a speaker is on familiar ground (Pawley & Hodgetts Syder, 1983). Formulaicity in relation to familiar or over-used topics is, then, certainly not a distinct feature of autistic language. Instead it is likely to be a characteristic of all language. Undoubtedly the extent of formulaicity may vary between speakers as a feature of style (Pawley & Hodgetts Syder, 1983) or between situations of language use as more or less appropriate (Perkins, 1999). However, the specific dimensions of formulaicity in relation to topic in autistic language are worthy of further investigation. The analyses of structure of preceding discourse leading up to favourite topic initiation and the issue of syntactic repetition in favourite topics are particularly interesting.

10.3.3. Turn-taking and repairs

Turn-taking rules are not always regularly observed in the data, in accordance with the literature on conversational turn-taking in autistic children (Fay & Schuler, 1980; Tager-Flusberg, 1989). It has been noted above that questions are not always responded to by participants, giving rise to extended pauses. In particular this is a feature that characterises the talk of Phoebe and Tina. While the more able participants make use of formulaic and minimal responses (for example, “don’t/can’t remember” in Tom’s talk) or truncated utterances, Phoebe and Tina do not always acknowledge the contingent nature of questions, which leads to repetition or rephrasing of researcher question forms. Mary’s data shows apparent non-contingent utterances which in fact are responses continued over more than one turn, suggesting that turn-taking rules and the researcher’s right to complete a turn are given secondary importance to her own utterance completion. This may be considered to be a type of self-repair. Penelope too may complete utterances over several turns, giving rise to a response-series. Flouting of turn-taking conventions is most easily explained in terms of lack of awareness of the rules of talk (Johnston, 1985), which in this instance is likely to be related more specifically to a lack of awareness of interlocutor needs and rights. There is an obvious connection between this and the autistic deficiency in ascribing intentions and beliefs to others (Tager-Flusberg, 2000).

Overlaps and latches in the study participants’ data do occur, though never with a supportive function, as is the case with the researcher’s utterances of this type (Fey & Leonard, cited in Edmonds & Haynes, 1988). The study subjects’ overlaps and latches are generally relevant to the talk and may cohere to their own prior turns or to the researcher’s current or prior turn. With the exception of Tina’s repetitive episodes, overlaps or latches rarely involve abrupt topic-changes: these tend to follow extended pauses.

Self-repairs are relatively infrequent in the data. Tina and Gary do not respond to the researcher's expressed difficulty in comprehension. Phoebe does attempt to make phonetic
revisions in response to overt interlocutor difficulty. Clarification requests made to Gary and Tina may be ignored or result in repetition of the original utterance. Mary, Penelope and Tom all respond to clarification requests or other-initiated repairs, although these are not always successful. On-line self-repairs are rare but do occur with the last mentioned participants. None of the study participants make clarification requests of their own, however, nor do they ever initiate other-repair even in the context of intelligence-test administration, where instructions may be complex or difficult to understand.

10.3.4 Conversation summary

Conversation analysis of the study participants confirms the literature findings on this topic. Connection to the discourse is relatively weak, corresponding to the tendency of high-functioning autistics to use more phorics than non-phorics in their talk (Fine, Bartolucci, Szatmari, & Ginsberg, 1994). The interpretation of this observation is that autistic speakers refer more frequently to the outside world than they do to the discourse. As with other studies (for example, Baltaxe & D’Angiola, 1996), the Fine et al. study found that there were few references in autistic language; Asperger’s study participants used more references, but these were often unclear. This backs up the observations in this study, where the single Asperger’s participant seemed far more competent both linguistically and conversationally, but in fact made many syntactic errors relevant to discourse cohesion, including referential ones. The comparative infrequency of endophor may relate to the use of truncation in the data, since truncated items are early clause elements. This is the most likely position for ‘given’ information (Bloor & Bloor, 1995) which, by its nature, is more likely to have endophoric realisation. Confusion with endophoric reference may also be related to a difficulty in establishing what is given and new information in a discourse context: this is a feature that has been noted in the language of autistic children (Ball 1978; Baltaxe 1977; Fine et al 1994, cited in Tager-Flusberg, 1996: 126), thus continuing difficulty relating to the manner in which given and new information can be encoded within a discourse (that is, referentially) may be presumed to continue into adulthood.

The utterance structure of the study participants is also noted as being relevant to lack of connectivity in the discourse. Few utterances requiring second parts, such as questions, are found: declaratives, with only a weak relation to the surrounding talk and especially to interlocutor contributions, are considerably more frequent than other types of structure in the data (Willcox & Mogford-Bevan, 1995). Even when questions are used by the study participants, a response is not always waited for, indicating that the interrogative function is not primary in such circumstances. The absence of language to elicit response, verbal or otherwise, is also noted in the infrequency of directives in the study participants’ data. Only Gary attempts an imperative and needs considerable researcher interpretation before understanding is reached and the requisite action is performed.
Throughout the talk, there is, then, a heavy reliance on the more competent speaker to direct, interpret, repair, maintain and initiate topics. Such is to be expected with less able language-users, whether they are children, language impaired adults or second language learners. Adults with conversational impairment or autism are distinct within this group, in that their impairment in these functions is likely to derive from deficient purpose in talk (Johnston, 1985). Autistic children have been noted as confining communicative functions to instrumental and labelling, while relative paucity exists in the more social functions of language (Tager-Flusberg, 1996). Normally developing children have an impressive conversational competence by the age of five years (Johnston, 1985) related to a growing awareness and concomitant development of illocutionary force (Austin 1962, cited in Johnston, 1985). Indeed, even prelinguistic infants demonstrate a wide range of communicative functions (Tager-Flusberg, 2000). Deficient or limited range of purpose in talk may also account to some degree for recurrence of favourite topics, as well as entailing a certain amount of repetitiveness and formulaicity.

The pragmatic deficiency in autism has been widely documented. It is often explained in terms of a theory of mind deficiency (Baron-Cohen, Leslie, & Frith, 1985; Bishop, ; Frith, 1989b; Happe, 1994; Lord, 1993; Meltzoff & Gopnik, 1993; Ozonoff, Pennington, & Rogers, 1991a; Ozonoff, Rogers, & Pennington, 1991b; Tager-Flusberg, 1993; Tager-Flusberg, 1996; Tager-Flusberg, 2000). A further suggestion here is that notions of emergent grammar (Hopper, 1992; MacWhinney, 1999) may prove useful in coming to an understanding of the conversational impairment in autism. Emergent grammar places discourse at the centre of language learning, proposing that grammatical categories arise from discourse requirements. This proposal applied ontogenetically effectively ties the conversation impairment in autism to the high occurrence of syntactic errors, such that the latter are dependent on the former. Deletion of early occurring clause elements may also figure in such an analysis in that, as mentioned above, these elements tend to correspond to given information and constituents which are of less importance in transmission of the message of the clause. The issue of emergent grammar is discussed further below.
11. Conclusion

The theme of prosody and its relationship to the more purely linguistic deficit in autism has long been a preoccupation of the field. This study has shown that the prosodic systems of all the adult study participants demonstrate peculiarities. The possibility of the source of such problems being more or less motoric or neurolinguistic in origin (that is, is it the fault of the planning of the program or that of the enactment of the program as it is carried out by the effector system) have been briefly considered above. Whatever the cause, there seems to be a tendency for the prosodic system to act as a single integrated system, in which deficits in one component (for example, tone contour), may be compensated for by another (for example, amplitude). The deficiencies that seem to exist throughout the system are then not necessarily all of equal status. If this model is accepted, then the tone deficit presents itself as the most likely candidate for primary source and that which triggers compensation by the other components. Tone contour is the favourite contender here for two reasons. First, it is mentioned so consistently in the literature as a feature of autistic language; secondly, while the research participants differ in their prosodic abnormalities so that some use whisper or low volume, while others typically extend vowels, all consistently exhibit peculiarities of tone. For all but Gary, this can be summarised as a narrowing of vocal range and inconsistent marking of tone-unit components.

An interesting corollary of this feature lies in linguistic planning. Tone units have long been reckoned to be the units in which speech is planned (Boomer & Laver, 1968). If the tone unit structure is so compromised in autistic language users, there is surely an implication that planning of language may be affected. The only way that these two features could both be impaired, such that planning was not affected, would be if the tone deficit stemmed from an essentially affector or motoric problem. The compensatory activities of the other prosodic elements, however, suggests that this is unlikely for two reasons. Firstly, the compensatory mechanisms are different between participants, suggesting an absence of 'natural' reaction to a physical distortion of action; secondly, nuclei are almost always marked prosodically in some way; if the distortion were motoric in origin, marking nuclei would be a matter of chance. Further, the consistency with which nuclei are marked, albeit non-conventionally, suggests a phonetic rather than phonological deficit in prosody. Hence it seems likely that the tone deficit and planning may be related. The direction of the causality cannot however be sensibly hypothesised here. Neither can the exact location of the postulated planning deficiency be specified. However, the analysis that has been made of syntactic errors suggests that a deficiency is unlikely to exist in clause composition since word order is generally not a problem. The existence of blends in the data suggests a monitoring deficiency, while unrepaired errors suggest problems in feedback mechanisms. However, function words are also consistently accompanied by errors in the data,
suggesting difficulties at a quite different level. These may or may not be related to the tone unit deficit however.

Locke (1998) warns against “theoretical adventurism” in seeking a single unitary cause in any developmental language disorder, as there are so many predictive factors which apparently correlate with a later-developing language disorder. Delays and deficiencies in “vocal mimicry, joint attention, volubility, play, social communication, babbling” (ibid: 236) have all been related to later language delays in children. Since all but the last of these are known to be impaired in autism, language is almost bound to be affected. In particular, this study has shown that the more voluble research participants, regardless of IQ measure, are more likely to attempt complex productive structures than the less voluble. Clause combining and complex verb phrases may only be achieved by strategic recourse to formulas or preferred linguistic items, themselves chosen from a limited set, but the end result is effective communication. Communicative intention cannot always be said to have been carried out by the less voluble, whose productive utterances are seriously restricted.

Locke’s GAM and SSC mechanisms (Locke, 1993; Locke, 1994; Wray & Perkins, 2000) accord well with what we know of autistic language development. In this framework, echolalia may proceed from an over-reliance on the SSC module so that the operation of the GAM may be delayed in operation. The delay in the onset of productive language may stem from an inadequate amount of stored SSC derived formulas. The limitation of extent of stored formulas could proceed from the conflation of social situations in which they may be used. The social deficit also explains the reliance on echolalia in the first instance. Given an inability to determine which are the important social situations, the autistic child instead relies on contexts which seem to be meaningful. Thus, those utterances which co-occur with incidents which stand out from the normal run-of-the-mill may activate the SSC (Kanner’s famous “don’t throw the doggie out the window” example being a case in point). Oddly, the opposite situation may also activate the SSC: routinised activities, since language in these situations is likely to be predictable and derive meaning through repetition. The autistic child, unable to achieve the requisite level of social competence thus clutches at straws, and imports sequences with varying conventional interpretation possibilities into their store. The GAM comes into play between 20 and 30 months in normal children, making the formulas available for analysis and subsequent re-synthesis into novel productive units. However, since the trigger is a large enough body of formulas, there is likely to be a prevalence of autistic children with little or no productive language well beyond this age, unable to operate the GAM because of a paucity of input material from which it may generalise. This delay in operation of the GAM and concomitant early upset in equilibrium may be sufficient to pre-dispose the adult autistic language-user’s to their characteristic rigidity and dependance on formulas and frames. The difficulty in making use of context is critical in the process, since it both increases the likelihood of the initial
selection of a formula being idiosyncratic, and restricts the on-line fluidity, which makes non-autistic formulas so difficult to disentangle from productive language.

There is, then, a dimension between productivity and formulaicity in autistic language as in non-autistic. These dimensions are however, different, and critically so in determining what makes autistic language appear to be impoverished. Inefficiently calibrated SSC and GAM mechanisms may also go some way to explain the apparent syntactic limitations we have seen in the data, such as the reliance on a limited set of prepositions.

From a performance perspective, the Competition Model (Bates & MacWhinney, 1989; MacWhinney, 1987) may also enable insight into the linguistic features of the data presented here. This model is closely associated with a functionalist perspective on language development (as well as evolution and processing), in which cognition provides a basis for linguistic universals and quantitative analyses of language are used to explain qualitative variation (Bates & MacWhinney, 1989: 6). Importantly and converse to Locke’s model described above, the Competition Model hypothesises no special dedicated language module. Indeed modularity on a grand scale is eschewed in favour of a more interactive mode of processing. Thus language arises in the model as an outcome of perceptions and functions necessary to human activity and experience. As Bates and MacWhinney say:

there are certain basic categories of perception and thought that all natural languages must deal with at every point in their history: principles of motion, space and time, and principles of human action and intention. All natural languages have had to evolve some means of encoding distinctions among objects, qualities and events, modes of organizing events in time and space, human attitudes about those objects and events, and human attitudes toward one another. They have also necessarily evolved ways of encoding functions inherent in the communication process itself, that is, the identification of referents, the establishment of a given referent as a discourse topic, the process of making points or comments about particular topics, mechanisms for shifting and/or subordinating topics, and devices that help to create cohesion across the discourse as a whole. (Bates & MacWhinney, 1989: 6).

Within the data, as in the literature, we have noted the prevalence of discourse and conversation impairment as well as impairment at all linguistic levels. The Competition Model gives discourse a central role in language evolution and acquisition, since this is an important source of functions onto which forms will ultimately be mapped (Bates & MacWhinney, 1989: 51). What these forms are likely to be is related to cue validity in the model, that is, how salient a cue is in the environment of the language learner. Bates and MacWhinney explain cue validity in terms of cue availability, reliability and conflict validity. These are related respectively to how frequently a cue occurs in the learner’s environment, how sound it proves to be when relied upon for an interpretation, and how often two or more cues conflict (Bates & MacWhinney, 1989: 41). As with the Locke model above, the autistic difficulty in interpreting the important cues in an environment is likely to cause mapping difficulties in this model. Bates and MacWhinney argue for an innate sensitivity to
quantitative factors in language, such that children take note of and focus on frequently occurring constructions in an environment. When these are found to be reliable and have low conflict values they become the forms on which the appropriate functions are mapped. For the autistic child determining which cues to focus on may prove difficult. This combined with a paucity of functions (due to the social impairment) makes the process of form to function mapping a difficult task for the autistic language learner.

An interesting issue arises here as to the documented functional nature of echolalia. Just as the literature ascribes functions to echoes in autistic children's language, the study data has shown that some formulas in adult language may also have a functional nature (for example, indicating an unwillingness to converse). These utterances may be representative of attempts to find appropriate forms on which to map functions. In this framework, early echolalia may even be perceived of as functions which exist with no specified form; that is, the autistic child uses the most available form (an immediately preceding other-utterance) to encode a function, due to a circumscribed ability to extract from the environment form-function mappings that are conventionally appropriate and acceptable.

The study data has also shown a tendency to use self-models in repetitive utterances as well as other-models (echolalia). For some study participants the use of self-models is far in excess of other-models. Indeed, while some participants rarely use other-models (for example, Tom), all the participants make use of formulas and self-models. The use of self as a model can be analysed further into the use of formulas and the use of immediate context. Formulas are considered to be self-modelled despite their possible genesis as other-models, because they are now apparently part of the participant's own repertoire, and are not dependent for production on other-contributions. The formulas which recur in the participants' transcripts may be marked in the discourse (for example, "tickly feets"), with a limited connection to the surrounding talk. Such utterances may be indicative of the next stage of mapping after the use of echoes. Here we see function-carrying forms chosen which are conventionalised in the autistic language user's repertoire, though not necessarily in the context of community-wide usage. The formulaic forms may be of a sufficiently general nature to perform the requisite function (such as Tom's "I can't remember" and Penelope's rising "yeah"), or markedly idiosyncratic (Gary's "tickly feets"). Whatever the case, these are forms that have been chosen as sufficiently salient by the participant to operate as functional carriers. The degree of mismatch between these formulas and their conventional functions is likely to be determined by the degree of social deficit as well as the degree to which the environment presents itself as confusing to the autistic language user. While non-autistic language users have many-to-many form-function mappings, the extensive use of formulas in the data suggests that autistic language users may operate with a limited number of formulas.
The local context also provides a basis for repetition. This type of influence is much more closely allied to normal linguistic processes, as has been discussed above. However, I would suggest that the data warrant comparison with non-autistic talk of a similar nature, since a likely hypothesis is that the extent and type of influence of local context may be different with autistic language users than is the case with normals. Whatever the case, the use of formulas, local context influence and other-modelling all combine to present language which appears to be impoverished. While these factors are all present in non-autistic language, their particular realisations and situational contexts in the data give an overall impression of oddness.

Repetition and formulaicity in adult autistic language is then complex and pervasive. Echolalia appears to exist to a limited extent, and occurs particularly in the repertoires of the less able study participants. The environments in which it appears suggest that the range of functions indicated in Prizant and Duchan’s (1981) work require broadening when applied to adult language. Likewise Howlin’s notion of the disappearance of the phenomenon at a verbal age of three years seems to be challenged by the study findings. A further suggestion from the data is that, rather than echolalia existing as permanently holistic chunks, it has the potential for future analysis and re-working into more productive units. The case for echolalia being an instrument in syntactic structure acquisition, whilst not being borne out by research into children’s echolalic utterances, remains contentious. In particular, the amount of variation in the types of repetitiveness suggest that it may indeed have some role in autistic language acquisition, albeit not a simple one.

The data also seem to favour an amodular account of autistic language. This study has examined neither lexis nor semantic aspects of autistic language, but the occurrence of difficulty at the levels of phonology, syntax and discourse for all study participants suggest that the linguistic systems of adult autistic language users are globally impoverished. A more pivotal role to discourse and conversation in linguistic acquisition and processing is suggested both by Competition Model accounts of language acquisition and use and Locke’s model. Neither of these models were principally devised to explain atypical language development though Locke’s model does orient to this. However, both are removed from traditional generative accounts of language development which emphasise the independence of linguistic levels as well as language from other cognitive and social processes. The data presented in this study suggest that there is an interaction between linguistic levels in the form of global impairment. Suggestion has also been made that explanations of language acquisition and development which derive from social and cognitive factors can be helpful in understanding how such global impairment may have arisen. Importantly, within these frameworks, autistic repetitiveness can be understood as not wholly unlike normal repetitiveness. The critical difference between autistic and non-autistic language instead resides in the importance of forms of repetitiveness as the main
bootstrap into language and as a processing strategy in on-line tasks for autistic language users.

This study has by necessity focused on performance aspects of productive adult autistic language. As such, questions have arisen which cannot be sensibly addressed here but whose answers are of critical importance to the interpretations offered above. These questions have been acknowledged throughout the study and promising further areas of research identified. The receptive competence of the study participants has not been investigated, neither has a great deal of detail been possible in the linguistic analyses. Nevertheless, the analysis has allowed us to note similarities between participants with greatly differing cognitive and social profiles. Critically, and even taking into account interference from performance factors, we have noted that the linguistic impairment is extensive and persistent in autistic language users. The role of repetition is apparently also critical in the language of this group and suggestive of flaws in acquisition mechanisms and on-line processing facilities. Conversely, the robustness of language must also be acknowledged here, since while impairment is pervasive, developmentally as well as synchronically, communication between autistic and non-autistic co-participants is, for the most part, achieved.


Based on Psathas (1995).

**Emphasis** is noted by *underlining*

Sounds that are *stretched* are indicated by *colons*: eg *stret::tch*

**Cut off sounds** are indicated by a *dash*. For example: *la- or bu-

**Pauses** are given in brackets in seconds and tenths of seconds eg *(1.2)*

**Less than 0.5 second** is shown by *(.)*

**Brackets** [* ] indicate *overlapped speech* [* ]

**No interval (latching)** is indicated by *equals signs* = at the finish and start of two speakers' talk. This sign can indicate continuation of one speaker’s turn when the transcription splits it up.

**Marked tone shift (rise or fall)** is shown by *arrows* around the relevant words: ↑*word*↑ or ↓*word*↓

**Loud volume** is indicated by *CAPITALS*

**Quiet speech** is indicated by *symbol* around the relevant words

**Out breath** indicated by *hhhh*

**In breath** indicated by *.hhh*

**Laughter** or crying is *(hhhh)*

**Anything in doubt** is in *single brackets* (like this)

**Empty brackets** mean no hearing could be achieved ( )

**Double brackets** indicate material that is not transcribed ((sniff))
{Curly brackets} indicate that the words inside are transcribed phonetically

A line of horizontal dots indicates missing sections

Italicised speech in lower font indicates that the right hand side of the transcription should be referred to for further explanation of the speech. For example:

T I want my book back creak

Italicics on the right hand side of the transcription may also contain extra-linguistic information. For example:

Tm don't know while copying from a peg board

Phonetic diacritics are used to indicate tone movement as follows:

- high rising tone
- low rising tone
- high falling tone
- low falling tone
- level tone
- sentence stress

The IPA use of: indicates vowel or consonant lengthening
APPENDIX TWO
Appendix 2.1
Tina
Transcription One: 29.3.95

S= Researcher
T= Tina
C= Careworker (Cindy)

1 S right (.) we're sorted now
2 T (2.2) when can I earn more lijnes (0.6) Susie::
3 S (0.5) 'when can you earn more what::
4 C (.) 'when sh- can (.) 'when sh can she [eərn it.]
5 T [when (.)] am I gonna earn more
6 lijneshz:: =
7 S = eərn more lines
8 T (0.8) I'd like to have a piece (0.5) {s:(.)fəʃiː}:
9 C (0.4) she- (.) 'Sue- (.) 'Sue(.) don't like you talking like 'that for a std::rt (0.7)
10 talking s'illy (0.9) I'll keep 'them th're wi me (1.4) right (0.7) you have a
11 nice conversation wi 'Sue
12 S (2.3) I'll bring you some more next time I cø me
13 C (2.0) i - if you're goød
14 S (1.0) if you're goød
15 C (.) yē ah'
16 T (0.4) I should think you jolly well wi::ll
17 C (.) talk prø perly::
18 (1.3) sound fúnny (1.0) don't bring her any if she's 'talking like 'that 'Sue
19 S (1.7) '[riːght ]'
20 C [you've ] got to-
21 S (0.3) what's thiːs (0.3) [tell me ] what's eːre =
22 T [don't yer ] = don't you daːre 'urt er'
23 face
24 S (0.6) don't I what:
25 C (.) she'll get crøːss
26 T (.) DON'T YOU DA.Real 'URT ER FAːszCE :: =
27 C = 'take it -' (.)
28 [Sue'll take that ] bò' ok off yer
29 S [is that what- ]
30 T (0.7) 'don't you 'dare ↓ what her faːce↓
31 T (.) don't you daːre 'urt er 'face::
S (.)'what's she say
C (.)'don't you dare 'urt er [fʌ:s]ce]
S [ŋəh] (.)'right
T (.)'don't you da're 'urt my 'face: (.)
[Sushie (.)'don't you da're] 'urt my 'face:
S [don't you 'dare u rt my 'face ]
S (.)'what's these pi,cures about (.) [ Tina]
T [when: ] (.)'hen:. (.)'an we have a t a pe
S on 'Sushie:
(.)'we'll li-. (.)'we-' (.) d'you want to li'sten to it (.)'afer we've do ne it
C (.)'if you talk pro per ly she might 'put you a t a pe on
S (.)'an i'll be yo u:,. (.)'you'll be able to hear [yo u ]
C [if yer]'talk properly (1.0) can
you s e e those(.) going round (0.9) lo ok =
S = 'lo ok↑
C (1.5) are you gonna si' ng =
T =.HHHHH (.)'yeah
C (.)' sing a s o ng
S (.)'don't put it so clo.se(.) 'put it a bit further awa.y(.) otherwise you won't be
able to h e ar it
C (.)'watch er get el e tro cuted

((sings))
T 'yq u↑ (.)
C [.hhhhhhhhhh]
T (0.6) 'no y er 'bloody well didn't ' t
C (.)'that was a no ther one
T (.)'you 'bloody [ ' well ] 'did no t
C [RI 'GHT]
T (.)'you 'bloody 'well did [no t]
C [.I'll ] 'tell you where the se are 'going
T nonono: [ nnononononono: ]
C [.this one's going in b i n (1.6) ri: ght ]
T (1.0) nonono: [ nnononononono: ]
C [.yes it j s (0.7) 'shall I put it i n .↑]
T (0.7) nonono: (0.7) no do_.n't t =
C = ri: ght
T (1.3) 'speak 'properly th[en]
C [.I a m going to 'start an beh a ve
T (2.2) I don't 'want it to go in the bi:n (( 2 syls ))
C (1.2)'gone [in bi:n 'now ]
[(inaud ))]

(1.1) ↑no↑ (.) yer not a ving it (.) yer not -(0.6) not talk ing 'properly
it's 'gone in the b i n (.) 'sit 'properly up to t able

(2.7) she can't have it ba ck (.) till you t a lk [properly ]

[((( loud bang))) ]

= ↑oːh↑ (1.5)
till you talk properly

(1.0) ↑no:: ↑(.) you're not (.) [talking properly ]

[ 'tell C i ndy ]

(0.9) ple a se may I ha ve it ba ck aunty Ci :ndy::]

↑[no:: ] ↑ ( 0.6)
you won't talk 'properly =

= ee .ːm ːh

creak

(.) you've lost it 'no w =

= aa .ːm e .ːh

creak

[ 'wh en you talk 'properly (.) you can

a ve it 'ba ck =

= ee .ːm ːh (4.4) I am sorry Mrs Aunty Ci :ndy

creak

creak

(0.9) d' al l right

(0.5) Sue'll work with someone e l se (.) if you don't talk [properly ]

[o .ːm e .ːh ]

like my 'back

(1.2) you would 'like what sw e e th [ear t ]

[I'd ] like { wa w wːk }
creak

(0.6) I would 'like my : bo.r :k 'no.w

creak

(1.1) she'd 'like er bo ok 'now

(0.8) ↑well I'm so r ry you can't have it ba ck (.) till yer [talk properly ] ↑

[I would ] like
creak

{ biː :wiːt; }

(1.2) you're not beha ving 'talking like th a t a -(.) ar e yer (3.0) so y ev lost yer

'book no w 'an't yer

(1.2) I would like to behave (.) vi sitin creak
"I would like to visit in sitting =

would like to be 'have(.) at vi 'sitin

(0.7) 'roo .m{s} /s (( 2 syllables))

(0.8) 'roo .m{s} /s ( ) [:mm {sz:}]

[who's Ste'ven]

( . ) Ti 'na ( . ) who 's [Steven]

[ { avə} bloody { avə} mushroo .m { ss:} ( 0 . 7 )]

{ abə} bloody { abə} mush[roo .m { ss:}]

[when l- ( ) ] when I get ( . ) 'back up to

quse[(). I'm ( . ) gonna ( . ) put your 'jigsaw away ]

{ abə} bloody{ abə} mushroo .m{ss:}(. ) { abə}/bloody

{ abə} MU SHröom{ sz}

(0.5)Ti'na (0.5) 'what is your ji,' gsaw about(.) tell me what your j' gsaw was a
bout =

bloody { avə} mushroo .m{sz}{(0.6) avə}bloody { avə}

mushroo .m {ss:}

(0.7) ↑ did it have anything to do with my shrooms ↑ ( )

↑ what was it a'bout ↑

(0.7) it di' d have some 'mushrooms on ( . ) ye'ah

(.) ↑ dj d it ↑ ( ) ↑ did it have mú shrooms on ↑

(.) [what else] did it have on

[ { ''' } ]

(1.0) ( hhhhhhhh) ( . ) 'don't [ 'know]

(1.4) aə: : :h (1.5) 'don't 'know

'that ji 'gsaw had on ]
(0.5) yèah you dô:: (1.3) did it have[(.] ânimals on ]

[aa ============== h] yèah creak

(0.5) was it a wòod
creak

(.y.xa ::h creak

(1.3) what élse was there creak

(0.7)y.xa ::h creak

(2.1) yèâh (1.0) 'what's thís creak

(1.2)((6 sylls)) creak

(0.6) it was ìàt creak

(0.7) aa == ho .io = creak

S

T

= 'talk properlì Tina creak

(0.7) 'when can I 'sing { 'rockin 'rol(hhh) th,.) rîdîn}
creak

S

T

(0.6) 'when can you 'sing ìàt creak

(0.7) w- { 'rockin 'rîuln ràw:don}
creak

S

T

( ) 'rock n 'roll what sings; creak

'To[ckin ] / rollin 'ridin

C = [ 'rollin ri' din ]

T

(0.9) out along the ba(hhhh)y.hhhh (.) a::l around for 'mòning time many
miles away (1.0) 'driver at the 'engine (1.2){ 'swàmàn] rùshin

(1 syllable)
sings; creak

(hh[hhhhhh].hhhhhh)hhh(hhhhh).hhh

C

S

( ) 'rockin 'rollin 'r[ìdin ]

T

[I don't ] knò ::v

C

S

(.) 'simon 'sings the 'bell (1.0) 'sandman 'sings the { twàp }
sings; creak

(0.6) ((1 syll)) the ((2 sylls)) 'bell

C

S

[(0.9) rockin ] rollin ridin

(0.9) rockin ] rollin ridin

C

T

(0.5) out al(hhhh)ong (hhhhhhhhhh).hh(hhhhhhh.hhh形成的 miles away (hhhh) a- angelas

S

T

( ) 'guess what (1.2) out al(hhhh)ong the angelas::
creak

(.) a::l the waybound { òm (. ) 'wàndàlez::}
sings; creak

(0.7)[many m ]îles a (hhh) â(hh)ìngelas

S

T

[si 'nging]
sings

S

T

( .) Ângelas =
sings; creak

= many[mîles s] m [any miles a- angelas

C

T

[stòp ] (.) [stòp_Tina]

C

T

(0.7) Ângela- =
sings; creak

= many [mîles a bak ]akeg

C

T

[Ângela wò::]

T

(.) ma [ny Ânge ]la Bakake::[ ::g(hhhh) ] creak
[whq:;'s 'Angela]

[ŋno(,) that's 'not] er 'proper ná:::me

(0.5) A ngela

(0.8)mmR.xe::d
creak

(.)that's bettter=

=aaâaa::[:h ]
creak

Angela bloody {ə} Re ed

(.)Angela blo ôdy {ə} Re e::d

= n'o swe'aring
creak

(0.5) come and look at this bő ok w[ith me]
creak

[Angela] bloody {ə} Re ed
creak

(0.6) Angela bloo òdy {ə} Re e::ds

(.) Angela blo'ody {ə} Re e::d

(.)what's i[n hêre ]
creak

[Angela ]bloody {ə} Re ed

creak

(0.5) Angela blo ôdy {ə} Re e::ds
creak

(.)what's th at
creak

(.)Angela bloody {ə} Re ed

creak

(.)Angela blo òdy {ə} Re e::ds
creak

(.)Ti' na (0.5) 'what's th[â]t
creak

[Angela bloody {ə} Re ed (.)
creak

Angela blo òdy {ə}Re e::ds
creak

(0.7) 'what's [thi sj]
creak

[Angela bloody {ə} Re e::d
creak

(.)Angela blo òdy {ə} Re e::ds
creak

[Ti' na ]
creak

(0.5) 'what's thi's
creak

(0.6) 'what's thât t =
creak

= I don't kn ow what that's called
creak

(1.6) it's a hq::rse
creak

(.) it's a ho::rs e
creak

(0.3)'it's a hq::rse

(2.0)what bout thât
creak

(0.5)I don't kno::w
creak

(.)neither do I
creak

(0.6)I don't kno::w

creak

(.)what côlour is it
creak

(1.3){ reed
creak

(0.8) myé ah
(2.1) 'what's it got
(2.1) 'what's this
(1.1) I don't know
=I don't think I know either it's a very strange object

(1.2) (4 syllables) Su shi xe

(0.7) o ri ght

(1.1) do they live in the {weis}

(1.8) I don't know

(1.1) they do live in the water

(0.6) whereabouts is the branch

(0.6) whereabouts is that man

(0.8) he's- (. .) what's he next to =

(0.5) what's that

(0.5) you do know

(0.6) what's that

(1.1) what's that little thing the re called

(1.5) which little thing where =

(1.5) what's that little thing (. .) where called

(1.1) what's it
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
creak
what's (.) that one called { tigers } man
that's a man
T
(0.7) tigers
S
(0.5) and that
T
(3.0) tigers
S
(1.0) uh
C
(0.5) I tell you what she likes Su(e)
T
Ti'gers
S
(.).H H H
T
(tigers (0.8) tigers)
S
[whisper][wish I'd known that (.).] cos I had some pictures of ti'gers at
home
T
(1.2) tigers
S
(2.0) what do you like about ti'gers
T
(I don't know)
S
(2.0) don't know
T
he likes to eat Whiskas
S
(0.6) (hh) likes to eat Whiskas
C
(.). that's a cat not [a- (.).] one in jungle
S
[.] Whiskas
C
(0.6) what they're doing (.). Tina (.). look (.). look (.). what they doing
T
(2.4) I don't know
S
(1.0) where are they
T
(2.9) don't know
S
(0.8) yeah what's that
T
(0.5) a beach
S
(2.0) a beach (.). yeah (.). so where are they
T
(1.0) and where are they (.). what are they doing
S
(0.5) yeah (.). where are they
T
(4.5) what's that called { sea }
S
(2.0) what's called sea
T
(1.2) what's that called there
S
(.) that's called sea
T
(.). that is called { water }
S
(.). and water (0.7) sea's got water in it isn't it (2.0) what bout that
(1.0) what's that

(.3) parrot

(0.5) a parrot

(0.7) an what about that 'what's that

(4.1) [I don't know:]

[ when-when you 'speak-

(0.6) you 'know when you 'talk properly you can have your other book back

(0.7) lion

=when- (.) when you 'talk properly

(0.5) lion

(0.7) lions (1.2) what do lions 'do

((roars 3.8))

(0.6) 'what be able to do it a 'leopard

(0.7)((roars 1.2))

(0.5) do they 'go (( roar 0.6)) what do they eat

(0.7) 'what be able to do it a {monkey}

(0.6) 'what be able to do it a {monkey}

=monkey

(.3)[oh-()] with a monkey

[ why- why you think he's 'climbing up there

(1.2)\'s climb up(.) his branch

(0.6) that 'monkey has got a tail

(0.6) that 'monkey has got a nice tail

(0.7) what 'the 'monkey doing

(1.4) climbing up his 'tree

=mnihmh

(1.1) why d' you think he's 'climbing up there

(1.2)\'s climb up(.) his branch

(1.6) what's that

(2.0) d' you know what that is

(1.2) what

(1.5) what

(0.3) what is it

(0.9) what is that called

(0.6) I don't know 'what d' you think it's ['called

(0.9) what is that called

(0.9) what is that called

(0.9) what is that called

{ a} you tell me what it's
called

called =
358 C = 'speak properly
359 T (0.7) 'you tell me what it is called
360 C (.) d'you want Sū e to put her 'book away
361 S (0.8) it's a (.) b e e : (0.8) [t's a-
362 T [it's a bee :: :]
363 S [it's ] a (0.7) 'really (.) 'big(
364 pi 'c[ture(.) of a b e e]
365 T [it's a picture of a bee]
366 S [a ] really big 'picture of a 'bee
367 T (0.6)((groan))(hhhhhh)hhhh.hh
368 it has to s t i : n g
369 S (.) ye s (:) what el' se do they 'do
370 T (2.4) I don't 'know what they have to "do "
371 S (1.1) what so' und do they 'make
372 T (1.1){bsszzssszzzssss} ]
373 S [(hhhh).hhhh]
374 C [bz[zzzzzz]]
375 S [(hhhhhh)] .hh (.) that's right (1.2) and 'what do they do
376 T (1.3)(hhhhhh){stu: :}
377 S (0.5) swi::: ng
378 (0.5) no::: (.) they fly arQu: nd (1.2) do'n't they
379 T (.)((groan))(1.0){ sst:ss}
380 S (.) ye a: : h =
381 T = d'you like to eat -
382 S (0.8)'what do I 'like to e at
383 T (.){ smm}
384 S (1.0) what do yo u 'like to 'e at
385 T {mm}{1.1} 'd'you like to eat (.) spring c a bb age
386 S (1.1) errr (0.6) not ré ally (.) do you =
387 T = someti,mes : (0.5)
388 some times it 'does
389 (1.2) it 'likes to 'eat spring 'cabbage
390 S (.)h- (.) what (.) the b e e (1.5) the 'bee 'likes to (hhh) eat (.) spring cahbage
391 (8.0) what else do they 'like to 'eat (.) what's it q n
392 T (2.6) a bee match
Appendix 2.2
Tina
Transcription Two 31.1.96

T= Tina
S= Researcher
C= Careworker (Cindy)
C2= 2nd Careworker

1 C tell Suyshie 'what you got to do when you 'cross rød

2 T (1.8) 'look both ways

3 C (0.6) cos (.) if you 'don't you'll get

4 T (1.1)'squashed'

5 .................................................................

6 T there's a little 'red män 'coming (1.6) u:sh' (1.0)

7 you'll never guess (.)wha:t (.) Aunty Cindy

8 C (.) whàt

9 T (0.6)there's a 'red män 'coming†

10 C (.)there ys (.)ya:sh (0.7) ‡flashing 'män ‡

11 ........................................................................

12 T Suyshie:: (1.1) what's the 'right time ⁰on your 'watch⁰

13 S (0.5) 'what's the 'right time on my watch (0.9)

14 'you tell me 'what the 'time is

15 T (.)when-(.)when is it 'quarter to t t enn

16 S (0.8) nò (.)

17 it's 'not [quarter to 'ten-]

18 T [ whenisit(.) whenisit] it (.) quarter to { ⁰ight =

19 S = it's(.) twenty

20 'five to twèlve(0.7) have you got a 'watch

21 (2.3)'you haven't got one(.) hâve you ⁰

22 T (2.1) I'd like shake your hq ::nd

23 S (.) 'shake me hånd (.) you 'shake me hånd 'then

24 (2.2) have I` got any 'nail 'varnish on

25 T (0.5) ⁰na ::k⁰

26 S (0.9) I have 'actually but you ca[n't 'see it]

27 T [ come ere](.) 'Sushie: 'lo sée::

28 S (1.0) (hhhhhh).hhh am I ni’ ce tooday 'am I: (0.9)

29 I'm 'not 'Sushie hòrrible tod'ay =

30 T =what-(0.5) 'colour are your shôelaces
d

31 S (0.6) do you 'like(.)my shôelaces

32 T (.)they're 'purple

33 C2 (laughs at unrelated incident)
they’re purple they’re all different colours

(1.8) very-

=yellow (0.9) black

(0.9) mm::hm(1.4) lovely 'shoelaces

tell me bout the swimming (2.6)
tell me bout the swimming Tina =

=where’s my mummy em↓ (. ) ↓be::ar↓

(0.9) where’s my daddy 'be::ar

(1.3) (hh)I(hh) don’t know

[ when can ] I go when it’s my turn ↓Sushi::e↓

(...). I don’t know when i’ve it your turn

(0.5) when ‘it’s- (. ) when can I go ups-((sniff)) (0.5)my turn

(1.1) when are you ma- (1.0)m(.)you know what I am (. ) ‘Sushi::e

[achines ]

chick’chick Tina lovey =

= ↑don’t go ‘doing ↑that then =

= I’m a nice little ‘chickchick

[Tine ] lovey =

[mm ]

=is that what your müm ‘calls you=

= chicken ‘Tine lovey

[is that what your müm ‘calls ] you

[ what does she call you ]

(0.8) she calls me(.) chickenn Tine \{iə’ve:n\}

(0.6) she calls her chic[ken ] piːæ =

[chickn]

= chick(.) chick ‘Tine lobby

(1.8) chick[ken piːæ ]

[don’t do ] [that: it ](. ) don’t do that

[((sniff))]

(. ) laah ↓(1.2) why does she ‘call you ‘chicken piːæ

(0.8) ‘what does Mary ‘call you
‘stop being shy:

‘tell me about Mary =

=Sushie(.) whereabouts is my three likkle pig 'book

[it’s in ]my 'boxss

[( -)]

(.) in your 'box

(0.6) whereabouts is my 'box

(.) I don’t know whereabouts is your ‘box (3.9) thàt your ‘box

(1.7) want to go and ‘get it

‘no! you can have it when you’ve ‘talked to Sushie an ‘told her er-(.)

gai [ i:: ]

[some-] some thi’ngs- =

=gAI::

(.) I no! you ‘talk properly =

=GAIgdy GAI g{ksj::}

(0.6).hh(1.0){jo}-(.)gai gdy GAI [gi:: ]

[right ] I think I’ll ‘put that

bag in[ ‘dustbin ]

[ {jo}gai gai ] G[AI: ]

[right ]

{œ}GAI GDY GAI Gli:

(.)pop to your room ‘then [cm on]

[gai eee ]er [ go on ] up to my goom

[‘come on↑]

(.)right(.) do you want to come and ‘work with Ray

no(.) I don’t want to ‘gork with gay

(0.6) shall I ‘shout him in

(0.6)naì:

(.) shall I shout ‘Ray in

(.) no(.) I don’t want to ‘dirk with gay::

(0.9)’talk properly said

(1.1) yes (.) I will do:

(0.5) rìght then (.) ge’t on with it =

= I will do {‘dusfɛt}

(0.8) what were you gon- you were going to tell me

what you di’ d this ‘morning what did y- =
tell me what you 'did this 'morning (.) 'what did you do
(1.3) when can I do some 'reading and writing
(1.0) 'eating out 'book is that what th-=
(0.6) where can I do me 'eating 'book
(1.0) 'eating out 'book is that what th-=
(0.6) when can I do me 'eating 'book
whereabouts is Li'nda =
=when can I 'do: me socia-lising 'book
about Li'nda =
(0.6) eating out book is that what they call other books (0.6) 'eating out (.) and (.)

wha::t Tine

(0.6) whereabouts is Li'nda
(0.6) in the book
(0.6)b-(-)[w-
[ isn't ] that what it says in the book =
[Li'nda (.) and Sue =
(0.7) when it's 'lunch nearly over
(0.7)wh- wh when it's 'lunch nearly over
(0.8) when's 'lunch nearly over
(0.7) 'little( ) I'm a 'little little (0.7) 'little little=
= 'Michael ân
(0.5) nice 'little( ) little['little]
S

tell me 'a:ill about that bök 'Tina (.) tell me 'about your bök

T (1.1)(( 2 syllables)) me eating 'out bök

S (1.2) and 'what's it got i,n it (1.2) 'what's it about

T (4.4) s got 'lots of 'things in it

S (8.8) what like(0.9) has it got (. ) any people in it

T (4.3) it got any people in it'

(3.8) I think it's got some people in it ain't it °=

T = 'sausage and 'chips is on the

'menu:::

S (.) is 'that what it says in the book

T (1.2) 'what else is on the 'menu

T (3.8) I don't kno.:.w

S (.) have they got any pudding on the 'menu

T (1.4) "no::°

S (.) haven't they got any 'pudding on the 'menu
(.)°no°
(0.3)°nò:: (. ) no çake" "
(3.7) haven’t they got any çake
(1.4)nò::
(.)mmhmŒm (. ) that’s not very good is it
(1.4) have you been to a ‘cafe (3.3) †you been to a çafe† (5.8) háve you

((talk between C and S))

oo:hi nò:: to S
(.) [no:: cos you ‘know what to-]
[ no::: o::hhh]
creak
(1.2):shake the hands Sushi:: e::h
creak
(.)you ‘shaking my hånd
(1.2)what do you say when you ‘shake somebody’s hånds =
={åi::}=
(72)°nò:: (. ) I don’t

want to [*stick my ‘knee ] in your ‘leg
[what do you say ] (1.4)’what do you say
(0.6) shake the ‘hands Sushi::e(.){ão:}

[what do you say when you ‘shake Sushi’s hånd
(1.4)’what do you say =
(1.9)’how d’you dô:
(1.9)’how d’yóu dô T i”na
(1.6) pleased to meet yer
(.) oh (. ) I’m very ‘pleased to ‘meet you too: (1.0) Miss ‘Windfall
(1.9) hm (. ) s pleased to ‘meet you ‘busy |pleased to ‘meet yer
(0.5) I’m ‘pleased to ‘meet you too
(0.7)but it -(. ) she’s ‘really good when she he- ‘hears ‘different accents
(.)yeah
(.) she mf mics them (0.7)*yeah (1.3) mimics them *
(0.8) what- [Ci”ndy]
[ she’s ‘very ‘very (. ) ] |observant [i”sn’t ] she
[mmmmm]
(.) [very ]
[( . )] hit ‘Alice
(0.8) well you haven’t ‘got to hit ‘Alice
(1.4)Alice{ss} =
'Alice is your friend =
=what-(0.5) Alice (.) she 'got a 'pony 'tail in
(yesterday (.) she an't got one in toda(y (.)
but she had [one in yèste ]rday =
[ when er wh- ] =when is 'Alice my 'friend
(0.7) 'every day
(0.6)when's
(1.8) 'every 'day
(1.2) an(-.) an 'tell Sushman you went walking yesterday
(0.6) 'what did you see on that pond
(1.5) [some 'duckss ]
["what did you see"]
(0.5) some ducks
[all different ] 'kinds
daddy 'du cks.:]
(0.8) daddy duckss
daddy ['ducks ]
[([-cough)]) =
daddy duckks (.) and 'muger ducks
creak
creak
creak
(1.4)[an ] she asks to go out in 'minibus nòw (.)
[ ]
at òne time (1.5) but (.) she 'still is a 'little bit (.) without mê
(.) she'll 'play up before she goes
(.)nmmm =
= an (.) they used to lèave her a lot
(.)but (.) [nòw]
[âa:ah ]
(0.5)they'll- (.)you know (.) because they'll say (.) aah (1.5)
but nòw (.) they say (.) nò: (0.6)[ she'll( ) she'll ] still take her
[pleased to meet yer 'Sushie ]
(0.6) cos while she's in thère =
=pleased to 'meet yo[u ( )]
[she's ] all ri ght
(0.8) I'm 'pleased to 'meet you
(0.9) 'pleased to 'busy ò 'meet yer
(. ) 'pleased to(. ) [ mèet ] 'you
[ 'yeah' ]
(. ) she 'looks through wjnda at all them 'trees and còws
(.) h an(.) she'll 'say (.) 'find me some còws 'Cindy =
=(hhhhhh) you got to
find - met

T = ((unintelligible)) meet you

S (0.7) have you: (0.5) been on the bus

(1.4) you been on the bus =

T = pleased to meet you [ () ]

C [ she's been on] train

S (1.4) you been on a train

T (1.1) will you sing that song bout wheels on the busss

S (0.6) do you 'sing a song about it (.) when you're on the bus

C 'sing [ it for ] r Sushie

T [ yea : h]

C (0.7) the wheels on the bus

S (1.1) go on

(0.4) go[ round- ]

S [ si`ng it ]

C (.) go on =

S = si`ng it for [ me]

T [ go ] round and round sings with creak throughout

S (0.9) round and round (0.6) round and round sings

S (1.0) the people on the bus go round and round sings

(.) a : ll day lo : ng(1.5) sings

m- mums on the bus go nod NOD no(hhhhh)l(.,)nod nod nod sings

S (0.6)" nou no no (.) sings

S (0.6) the people on the bus go(hhh) round and round sings

(.) a : ll day lo : ng sings

S (0.7)" wheels on the bus go( .) er (1.9) sings

S nod nod nod{ s} (0.5) nod nod nod{ ss} sings

S (0.7) the people on the bus go NOD{ S }(.) nod nod(.) sings

a : ll day lo : ng(0.6) sings

S the people on the bus go nod nod nod{ S } sings

S (0.7) nod nod noD{ S } (0.7) nod nod nod( .) sings

S the people on the bus go nod nod nod(0.5) sings

a : ll day lo : ng sings

S (1.2) 'that [ were bri` liant ]

T [ ((stamps feet 5 times)) ]

C [ yeah( .) she ' knows a lot of s ongs =

T = people on the bus go sings

stample stamp stamp sings

S (0.5) stamp stamp stamp sings

S (0.6)" people on the bus° sings

(.) the people on the bus go STAMP STAMP STAMP sings
(0.8) people on the bus go (1.6) (stamps feet 3 times)
(0.5) chitter chatter chatter
(0.5) chitter chhhatte r
(0.5) the people on the bus go chitter chatter chatter
(0.7) a : ll d a y lo ng
(0.5) people on the bus go talk talk talk
(0.8) talk talk talk . . . talk talk talk
people on the bus GO TALK TALK TALK ( . )
a : ll d a y lo ng =
(0.5) people on the bus go talk talk talk
(0.8) talk talk talk . . . talk talk talk
(0.9) giggle giggle giggle
(0.8) giggle giggle giggle =
(0.7) giggle giggle giggle =
int she lovely singer 'Sushie
(0.6) and she has- (0.6) what else do you have with your 'fried e ~ ggs
(0.7) mush'roo: ::ms (0.6) and garlic 'bread
(0.6) hh'hhh =
C = ah(.) I shall 'give that bag to 'Ray
(.) if you keep 'acting abou' ut
[.]I'll 'put it in a cupboard

T [ômelette]

C (. an ômelette

C (0.5) 'all ri:'ght (. what 'kind of ômelette

T (1.7) a different kind of ômelette

S (0.8) ↑ a different ki 'nd↑

C (. cheese(.) or mushrooms

T (1.4) cheese

C (. cheese(0.6) mmm (. and 'what does your erm m (0.6) an what does

yer dad 'ave

(1.5) 'what does your daddy 'have

(0.6) 'to eat (. does he have same (1.8) does he have

'same as you

T (1.1) he's had an ômelette

C (0.3) did he: (0.6) o:'h ri:'ght ( 1.9) what did(-) (. what does y-(.) your

'Kim have to ea't

T (3.0) an ômelette

C (0.6) does he

S (0.9) who's Kim Tina

T (1.1) my bruvver (0.5) I've got a little brother called Kj: m

C (. ) yé:a:h ¹(.) [yeah]º

S [ how] 'old is he

C (1.3) twenty wHat

(1.2) 'what is he [how old]

C (five 1 years old

C (0.5) ↓ no ↓ (. he in't (. he's twenty::

T (1.2) 'one ye[a]rs of] ld =

T [one]

C =yeah

S (. twenty one 'years 'old

C (. ) 'yeah twenty one°

(0.5) and 'Tina's 'twenty (. ) four

S (0.6) are you twen[ty four ] Tjina

C [aren't yer ]

T (. aha:h =

C = 'll be twenty 'five in May

S (0.5) oo:h(.) your bi::rthday

C (. mmmhm
Appendix 2.3.

Tina

Transcription Three (WISC): 22.5.96

T= Tina
S= Researcher
C= Careworker (Cindy)

1 S ri`ght (0.6) what d'you 'call thi`s
2 (1.6) 'what is it
3 T (0.7)fummm =
4 S =ye`:s (1.3) a:nd (.) how many e`ars have you 'got
5 (3.3) how [m]any e`ars
6 T [e]
7 S (1.5) how m`any
8 T (0.9) one
9 S (1.1) how m`any
10 T (0.8) one
11 (2.7) "two:°
12 S (0.5) how m`any
13 T (0.7)"two°
14 S (.twó(.)° that's it°
15 (0.9) nów (.) think hár:d Tina
16 (1.5) 'how many lègs (.) has a dóg 'got
17 T (3.3)°one°
18 S (0.6) 'how many lègs
19 T ONE
20 S (1.3) think hár:d about a dóg
21 T (0.7) one
22 S (.o:xkay sweèthart (1.9) nów
23 (1.2) 'what must you do: (0.6) to make wàter 'boil (6.1)
24 T °(hhhhhh)°.hhhhh =
25 S = what d'you do(.) to make 'water 'boil(.) 'Tina
26 (3.5)what d'you 'do with it
27 (7.7) d'you know what you do with it
28 T (1.3) you must have a 'piece of (0.6) you 'must have a piece of (0.6) swish
29 S (0.7) you 'must have a 'piece of what 'love
30 T (0.5) SWISH
31 C (1.0)no:: (0.6) no::
32 (.you're not getting a [pa:ge ] of that 'one
33 S [oh is that what-]
34 C (. no:: (. you're being 'silly now (.) think about it

aggressive

T bangs on table
35 (0.9) when you 'go in the ki tchen (.) to make something boil
36 'what d'you do
37 S (1.6) how d'you make some 'water boil
38 (1.9) m'ee:h
39 (1.4) 'how do you make water boil
40 T (.) Sushi::e(.) I would like you to shake your 'fa:ce
41 S (0.7) you want to shake my face
42 (.) you ↓can't shake my 'face↓
43 (3.3) 'how:m many pènnies (0.5) make a pound (0.5) 'Tine
44 (2.6) how many pènnies (.) in a po'und
45 T (3.8) I've got a two 'pence
46 S (1.4) you 'have got a 'two pence
47 C (0.9) she-(.) she 'knows what a 'pound is in money
48 [(. but)] I don't think she 'knows how many =
49 S [yèah ]
50 S = no::(. I mean
51 some [of these que:`stions] will be(.)tally (((inaud)))
52 T [ I 'have got a p- ]
53 C [ yèes ]
54 T (.)I have got a {paltants}(.) I have got a 'coin(.) from (.) at (. ){klun} (.) palace
55 S (.)'have you 'love
56 T [((groaning))] [ ]
57 C [she means Buckingham Palace]
58 ((inaudible - groans too loud))
59 T what do I have to 'do::
60 C (0.6) 'what
61 T (0.6)we have to do our(0.5) we 'have (. ) to do our (0.9)°traffic li'ghtss°
62 C (. )traffic li'ghts (.) yeah (.)when we do our [ 'roa:d ski' 1 1 s ]
63 S [yèa::::h ]
64 C (0.9)ye`ah
65 T WE 'HAVE TO DO our 'traffic li'ghtss (0.8)
66 and we 'have to have our roà.:d 'skills
67 S (0.9)nò:w (0.7) what d'you ca':ill (.) a 'baby cow:w
68 T (2.8) moo
69 S (0.9) it says moo(.) yèah
70 (.) whas a 'bàby 'cow 'called
71 T (1.9) 'sheep
72 S (0.3)↑a she'ep(0.6) okay↑
73 (2.1) ↑do you know how many days (.) in a we`ck ↑
74 (1.6)(hhh) how many 'days in a week
75 C (4.4) nò:: (. )that's Sushie's p[ àper ]
you can have some in a minute
(1.0) how many days in a week Tina
(when) (. ) an (.) can I have some lives
(2.9) you can have some in a minute
(0.9) you gonna tell me (.) how many days: in a week
(3.5) s' that a hard one
(2.1) shall we leave that one
(1.8) right (.) I've got some pictures to look at now Tina

you gonna tell me (.) what important part's missing (0.6) from
these pictures (1.2) you gonna look
(0.8) Sushie where's Jedzia
(0.5) she's in the other room love
(0.6) HH( . ) now look (1.3) it's a picture of a cat
(0.7) leave that there so (0.5) so I don't knock it
(0.4) right (0.5) now (. ) what is 'Sushie asking yer
[ when can I- ( . ) when can I have some line s]
(0.8) right (.) you're not having any at all
(0.4) look (.) what 'Sushie's talking
(1.1) can have some in a bit
(0.7) right ( . ) = [ now]
(0.9) you can have some in a bit
= [yeah ] ( . ) you can have some in a bit =
what's missing (2.6) what's fancy about that cat
(0.3) it's got a big bushy tail
(0.6) what important part's missing 'off it
(2.1) [ it's ] got some whiskers
(0.6) what's missing though
(1.1) can you tell me 'Tina (0.8) in what way ( . ) are a wheel (0.5) and a
ball ( . ) alike (1.1) can you tell me what's the same about them two things
a wheel an a ball

what are they

what shape are they

what are they

they're both round

C

you've got another point =

you've got another point

you had a lamp in your bedroom

what did you used to do with your lamp

what do you do with a candle

what do they both do:

blow it out

you blow a candle out
don't you

you both put them both out

Cindy::

(0.6) what

I used to sing

happy birthday to my pal =

I know

[can you] sing

happy birthday to my pal

my pal (.). Tina

[Sushie (.). I have got a daddy S:imon

(you have got a 'daddy ) Si`mon

[you have an't you ]

'Sushie- (0.8) tell y-(.) °'tell Sushie(.) what he 'does

(0.6) w-(.) when he goes to work°

he's a °plumber°

he's a what

°\text{round}°
(0.5) is he a BINMAN
(0.6) plumber
he's a PLUMBER
(1.0) yeah (.) an what does your mummy 'do
(2.0) when she goes to work
(3.6) * she likes to go home*
whisper
what does she do at work
(2.0) who does she look after
3.6)((inaud - whisper))
(1.2) no- (.) er (.) er (.) when she goes to work
(2.7) where those budgies are
(0.5) hh(hhhh) I've 'eard about these budgies (0.3) is this 'Mop an Bucket
(0.7)'ye::: [ âh ]'
[M] op an 'Bucket the budgies
(0.5) she looks after those (1.6) old (0.8) people (.) dün 't she

'Tina darling (1.1) can you tēll 'me: (1.7) in 'what 'way (.) are a 'shir:::rt
(.) and a hat [ (.) the 'sa:::me] me
[ aaaaaa ]
(0.8) what's the 'same about a SHIRT and a hat
(1.1)((groan))
(0.7) 'what d'you thi` nk (1.6)'what d'you-° (1.8)
'what's the sā:me about a shi:::rt (0.7) what Tina wēars (.) a shir:::rt
(1.0) [ and] a hat
(0.9)((groan)) =
(2.4) what d'you dō with em (2.5) whadyou 'do with
a 'shir:::rt an a hāt (2.0) I 'bet she knōws 'Sushie (.) she'll tēll you in a minute
(1.0) she's just having a thē' nk about it (2.6) ri:`ght (.) 'what you got to 'tell
Sushie:
(1.5) what's a 'shir:::rt and a hat ( .) how are 'they the sāme 'Tine (1.7) Ti na
(2.2) you 'listening to Sushie
(1.3) are you li` stening (1.2) what did 'Sushie 'want-(0.7) 'what have you got to 'tell
Sūshie about that 'shir:::rt an hāt (1.4) ẽ:::h
(1.3) 'what d'you dō with 'them 'both ( .) 'Tina =
(0.7) you av-
(.) nó::: (0.5) 'what do you do with a 'hat and a shi` rt
(2.6) 'what d'you dō with em
(0.9) I have to 'put it round my shqu:::lder
that's 'what you do with your shirt (. ) j'nit

'ave to keep 'warm

'ave to keep you warm

I want my 'cardigan 'o::nn

okay 'love (1.1) okay we'll 'do another 'one (1.0) let's see what else we've
got to 'ask you 'now

shall we 'do (. ) see if we can do some sùms 'ere

'ave to do any 'summs

I got some trêes (. ) 'ere

some trêes (0.5) wô: w (0.6) we some-. ( ) see some tr-. ( ) trêes (. ) in 'She: rwood

you 'count em out loud so I can ear you

count [em ]

five (0.7) six (0.5) an seven (0.8) eight (0.7) nine

(0.8) ten (0.6) eleven (0.5) 'eight (1.6) [fifteen]

crack

[ ele`v ] en

eight =

ele`v[en]

nine (0.5) [tr] ees

crack

[ tu-]

tu

shall we do em again (0.8) shall we do agàin (. ) do- ( . ) get

'Cindy to 'help you agàin (. ) ere we go

one (0.7) two (0.6) three (0.5) four (0.6) five
six (0.5) seven (0.6) eight (0.6) nine

trees (1.0) eleven (0.5) fourteen

twòer (1.8) ele`ven (. ) twòer (1.1) tú (0.5) 'tu (. ) 'oo (. ) gr =

eight

(0.7) nò (. ) she 'just got to eleven din't she =

= yèah (0.7) "she just got [to elèv]en"[ˈeight]

(0.5) twèlve

can you (0.6) 'use 'this 'bit of cã::rdboard (0.7) to còver 'up (. ) some of these trêe::s

(1.1) and 'just 'leave four (1.0) [so that-]
can I have some line

(0.8) mmh (.) not yet

nów Tina (0.9) can you cover up (.) do: like you just did (0.4) with 'Cindy' then
(0.7) but this t ime (.) can you 'leave me (0.5) ni 'ne trees

C
(0.5) ni 'ne

S
(0.5) 'see if you can do it for ni `ne 'trees =

t = can we go to the library in a bit:

T
(0.4) yea :h (.) you go in a bit (0.9) 'come and do this for 'me 'now:

S

shall we leave that 'one (0.7) it's a bit àerd 'that 'one =

= one two three four five six

'seven 'eight (1.5) ni 'ne that was ni 'ne look

S
(1.9) shall we 'pop them away 'Tine

C
(0.7) hém

S
(1.3) o' getting féd 'up with 'them°

C
(0.6)(h)hh)

S
(0.5) 'now sweetheart

T
(1.3) can I have some line

= in a minute 'darling (1.3) if I 'cut an 'apple in

ha:lf(1.0) how many pi ec es will I have

T
(7.4) o' now o'

S
(1.5) ow many dáling

T
(2.1) o two pieces°

S
↑two 'pieces ↑ (.) that's ri 'ght

C
(2.9) wéll dóné[Tine (0.9)] you got a'nothe r pöint

S
[ ↓ you 'good gi'rl ↓ ]

C
(2.6) y[ou've got a'n]other pöint

T
[ o' go to the ]

(1.3) go to the 'l{at}:dies°

C
(0.9) lái :dies

T
(0.9) want to go to the li:brary =

= li:brary(.,) when it's t í me (0.6) it's not o:pen 'yet

S
(1.8)=[ it's 'raining ] (. ) nów (. ) look 'Tine (. ) it's 'raining like mad nów

C
= [ when it's time-]

(0.7) when it's t í me (. ) it's-(. ) it's clo sed at the 'moment

S
(2.2) now 'Tí na(1.2) [ if Ci- -] if Cindy (.) ad fi 've 'ribbons =

T
[ can I -]

= can I go to the library

in a bi:xt =

S
= yès (.) love (.) you can (0.8) if 'Cindy ad 'five 'ribbons (0.8)
Cindy had five ribbons (.) an she 'lost one (1.0) 'how many would she have (3.3) 'how many would she have left (6.0) if I had five ribbons in my hair (1.6) an I 'lost one (1.5) 'how many would I have left (2.6) right (2.4) [how] many =

\[ \text{one} \]

°she said one (.) 'Su[shie]\°

I'm gonna 'ask you what some words 'mean now (.) be open [ back to | the 'library to be open

(0.6) nyi- it's 'not open yet

(0.8) they're all still in be'd (1.3) they're in be'd

(.) [all them people who work there]

[m. me witches book if I be]have

(0.7) 'what love

(2.7) "could she ave her 'wi(hh)itches 'book if she beha(hh)ves" a witches book

(0.8) do you 'like witches (2.3) do [you 'like-

\[ \text{lovely} \] likkle wig:le: : : : : tch \text{odd voice quality}

(1.5) \text{t}sh' \text{angry} \text{t}

(0.7) who's =

\[ \text{she's angry} (.) \text{th[at wig]tch} \]

\[ \text{angry little wig:le: : : : : : : tch} \text{odd voice quality} \]

(0.7) 'angry little witch

(1.2) \text{t}shangry little wig:le: : : : : : tch \text{odd voice quality}

(.) 'why's th\{u\} (.) wig' 'angry

(2.6) 'why's that wig 'angry

(.) cos she's a {t\text{f}u\text{h}a\text{m}m\text{n}} (.) guess what

(0.7) wha't =

\[ \text{because \{sf\}u\text{sh}tie (.) she's a likkle chicken pi:ce} \]

(hhhhhhhh).hhhh (.) is that little witch a 'chicken pie

(0.9)yes she is a likkle (.) \text{k}steak an kidney 'pi:xe (.)

because she \text{t}js \text{a likkle} (.) chicken 'pi:xe (0.6)

\text{cos} she \text{is a likkle steak ann (.) kidney 'pi:xe}

(.)Chicken pie 'a[n d a -}
COS SHE IS A LIKKLE STEAK AN KIDNEY PIE

S (0.5) I thought she were a chicken pie

T (0.9) cos she js a likkle steak ann kidney pi:e

S (.)'steak an kidney ând 'chicken pi:e (1.6) now Ti'na (.) I'm gonna ask

'you what some wòrds 'mean okay (0.9) you 'listen carefuely an 'tell me what
each 'wo:rd mèa:[ns ]

T [.hhh] ye:s

S (.) oka:y

T ((inaudible))

S (0.9) can you tell me 'what a [kni`fe is ]

T [ 'where's 'Harr] y

S (0.7)'I don't 'know (.) 'tell me what a knife is

T (1.0) 'where's 'Harry

C (0.7)no:: 'list[en Ti`ne ]

S [ you 'tell] me 'what a kni`fe is (.) 'what's a [kní fe ]

T ['where's] (.) Hârry

C (.)Ti`na

S (.)'what's a kní:fe

T (1.0) no:: (.) 'where's(.) Hârry

S (1.6) 'I don't know where 'Harry is

T (0.8)[whe]re's Hârry

S [ wh-]

S (0.5)'what's a kni`fe

T (1.2) tell me w-

[w-(.) what d]o you mean (.) WHERE'S HA ~ RRY

S (1.0) hh 'tell me what a [kni`fe is ]

T [w-(.)w-(.)] yes (.) but 'where's ãrry

C what's a-

S =if I tell you 'where Hârry is will you 'tell me

[what a kni`fe is]

T [ yes but yes ] but Sushie (.) 'where's Hârry

S (.)'he's at-† (.) he's go- (.) e's [nòt 'ere]

T [ yes but] (0.5) yes but Sushie (.) 'where's Hârry

C (0.6) listen (.) listen(.) ss[shhhh ]

T [ yes but(.-)] Sushie (.) ['where's] Hârry =

C [listen ]

C = listen (0.6)

C'what did Sushie (.)just a 'sk you

C (1.9) you kno`w what a 'knife is do'n't you
(2.3) you do it with a fo::rk
(0.5) you 'do it with a fô:rk ↑(.) yes ((clap))
(1.0) vèry 'good
(0.9) 'ri::ght (1.6) 'ri::ght =
(0.7) 'Su::shie

[ listen to- ] [ listen ]

C

listen =

= what 'love =

C

can you tell me (.o.o::')s Mister 'Tickle:

S

(2.6) who is 'Mister Tì`ckle

who's that (.). can you tell me

S

(0.5) who is 'Mister Tjckle

(1.5) I don't know (0.8) is e a 'Mister Man

(1.6) is e that o[ne ] with the 'long [wavy à::rms ]

T

[k']

[ eh- (.o.nô::] ]

(.) can you tell me: (0.5) what do you have to do:(0.4) with 'fan{tastic

S

(0.8) I don't kno:'w

T

(0.8) {kəa?} - (.). can you tell me

S

(0.8) what =

T

= Sushie (.o) where {uz-ə} (.o) where is a 'fan {tastic

S

(0.4) where 'is fantastic

T

(0.7) 'no::(.) can you (.o) 'tell me(.) where is a 'fan{tasTIC

S

(.o) I don't kno:'w

T

(1.0).hh{ts}ushie (.o) can you (.o) 'tell me(.) where is a 'fan{tasTIC=

S

= 'what's

a 'fantas[tic ]

{(hh)}{(hh}[hh]hh)° ]

C

[(hhhhhhhhhhhh) (.o) you- (.o) are you 'fantastic

(1.5) is [Tìna 'fan{tasti} 'c]

T

[ {tₙɛa¥ (0.7) ] elala } ↑

(0.9) = [ ca ]n you tell me ShUSHIE {ə}(.o) WHERE'S A 'FAN{TASTIC

S

=[á:y]

(.) I don't know (.o) p'raps there's one in another room

T

(0.9) can you tell me Sushie (.) where is a 'fan{tastic

C

ri::ght]

S

[ca]n you answer 'me: (.o) 'what an umbrêll[a is ] 'now =

T

[{{kə?}}]-

(1.0) = can you tell me

where{əaauts} is that 'fan{tastic =

S

= you know how you 'answered me 'what a kni` fe

was
I would like to get cross

Cindy’s got one in her bag

It is called a brolly

It is ‘called a brolly (1.6) that’s very ‘good

Let me ‘write down what you [said]

It is called a shake yer hands

That’s a-

Don’t you squeeze

Sushie’s hands

‘ye::ah”

Tina love (0.5) ‘what’s a clo’ck

What’s a [‘clock ]

[((little groans))]

No:: I won’t bite (0.5) you don’t ‘bite ‘then (0.3) ‘either (0.3) we neither of us

will ‘bite

(0.5)why-(.) why don’t you bi::te

Because it’s ‘not nj::ce (1.1) t’hürits↑ (0.7) t:o:w↑ (.) tőóőőőőh dè:zar↑

(0.7)↑makes you go ó::w↑ =

I like you to laugh

(0.6)whá(hhh)t

I like you to laugh

(0.5)you want me to laugh (1.0) t:ha t:ha t:ha t:ha:ha:ha:ha:ha:↑

You [going ]

(1.4)( hhhhhhhhh).hha ha ‘where you [going ]

[ Sushi::e] () me give you a kiss::
what is an $\ (2.3) \text{wha}(\cdot) \text{what is an 'at} \ (1.1) \text{what is an 'at} \ (0.7) \text{right} \ (1.0) \text{tell me what an 'at is then} \ (1.5) \text{tell me what an 'at is} \ (1.9) \text{what is an 'at}

(1.0) \{a\} \text{ where do you wear it}

(1.3) \text{on your 'head} \ (3.3) \text{did you 'ear what 'she said}

I did (\cdot) \text{yeah} \ (1.0) \text{I 'eard what you 'said as well} \ (2.2) \text{I did yeah} = \text{"on your head"}

on yer 'ød (0.6)(hhhhhh)

(1.2) \text{nö:zw} (\cdot) \text{d'you 'know what a bicycle is} \ (2.3) \text{you 'know about them} (\cdot) \text{don't yer} \ (3.4) \text{"what's a bicycle} \ (2.1) \text{WHAT IS JT} \ (3.5) \text{"what's a bicycle} \ 'Tina

(0.6) \text{(hhhhhh)}

(3.5) \text{"what's a bicycle} \ (0.8) \text{you 'know what a bi' cycle is}

(2.0) \text{it means you've got to} \ {u} \text{eddel}

(0.8) \text{it 'means you've got to pe"dgle} \ (0.5) \text{yè:;:s:} (\cdot) \text{it does}

. Sôshie

(0.7)\text{what 'love}

(0.9)y(yo- (\cdot) \text{you have got some 'pastriess}

(0.8)pâstries

(1.7) I've got some whât

(1.0) \text{can you tell me:} \ (0.8) \text{ave you got some 'tâ::rtss}

ave [(h) go(hh)t some-(hhh)]

[ 'pastries en ] tâ:rts =

= can you tell me (\cdot)

\downarrow \text{ave you got a 'sherry::} =

I di, d ave some 'tâ::rtss (\cdot)\text{what was that 'last one}

(0.6) \text{"ave you got a sherry:"}

(.) \text{ave I got a cherry} \ (1.1) \text{I don't think I've even got a 'cherry in my quse}

(0.6) \text{can you tell me(,) ave you got a} \ (1.0) \text{"ro::illing} \ {pinn}\n
(.) \text{I ave got a 'rolling pin}

(1.6) \text{but she doesn't (,) \downarrow \text{use it very 'often} =

=\text{h(hhhhhh)(h)}

[can you] tell me=

\text{=li:ke [me]}

[(hhhhhhh) ]

[have]n't \text{ you got a (,) 'nok(,) clock}

(1.0) \text{I ave got a 'clock} (\cdot) \text{yeah}↑

(0.8) \text{where js yours}

(0.7)\text{it's at qme} \ (2.0) \text{I got a watch 'ere (,) that's di,ferent though} =

\text{= can you tell me}
where'sss (0.5) that steak an (.) kidney: {mæːuːəː} =

=that 'steak and 'kidney 'piːːə's(.)

'in your tummy

(1.8) it's gone:

(0.5) (hhhhhhhh) has it gone (1.0) now (0.5) 'Tina(.) 'tell me what a nãil is (0.9)

'what's a nãil (3.7) 'what's a nail

(2.0) 'what's a nãil

(5.3) 'what's a nãil =

=to cut your hãnds with

(1.1) to 'cut your †hãnds † with (1.0) is 'that what it js (3.0) o":Kay

(.) she 'means when I'm 'cutting er nãils don't y[ou ]

[ aaːʃ(.)] is that what she- (.) qaːh

(.) to

[ 'cut ] your hãnds with (.) °right°=

°yeaːʃ⁰

°yeaːʃ⁰

[(3.5 )] °oː'kay 'love°

[ hh hh.hh]

(0.5) Sushːːe

(.) what =

= can you 'tell me( .) what ( .) is ( .) an 'ot dãg

(0.5) 'what is an 'ot dãg ( .) 1 an 'ot dog † [ † ( .) it's a 'sausage in a bùn † ]

[ .hhh hhh hhh hhh hh (hhhhhhh).h]

tell me 'what a donkey is

(1.6) is:: wha you riːde on:::

creak

(0.6) † is whãt †

(0.5)(hhhh) (0.7) † something that you ri⁡hh(hhhhh) [(hhhhhhhhhhhhhhhhh )]

† [something that you riːde ]

on † =

I ave got an ohhhhhhrse called Mahhhhhrmalade

breathy

(0.8) ave you got an †hɔːrse † [called Mɑːrmalade ]

[WHEː'RE'S A- WHERE'IS AUNTY MO C

(0.6) listen ( .) don't 'talk [louːd ]

[ I say ] Sushie ( .) [where’s ty Mʊ ]

[ don't talk lœud ]

( .) don't 'talk lɔud (0.7) 'softly

(0.5) 'where's Aunty 'Mo

( .)[I don’t] know 'where she is 'love

( .)[ inaud]

(0.7) I don't knqw 'where she is
(1.6) can you tell me (0.8) what a thief is

(1.3) I don’t know

(0.7) you don’t know "what a thief is"

= can you tell me::: (1.8) can you tell me

what’s {am} (0.9) can you tell me what is a piece of beef (. ) isn’t

( . ) a piece of beef {is}

[hhh] (0.6) where is that beef::: (1.3) can you tell me

me where it is

( . ) d’you think it might be [in the butcher’s shop]

[ can you tell me what is a piece of beef:: (0.5) can you tell me

what is a piece of beef:::

( . ) a piece of beef

[is:: ]

( . ) is something that you ave } for dinner

[where- ( . )

‘where is that-

( . ) ‘where is that ( . ) bag of beef:::

(1.4) [can] you tell me where is that bag of beef:::

[its-]

( . ) the bag of beef is in the [butcher’s shop

[where is that bag of beef::]

fast

( . ) it’s in the butcher’s shop =

= where is that bag of beef:::

( . ) in the butcher’s shop

(0.8) in that bag of beef:::

(0.6) can you tell me what (0.5) join means

(0.6) no:: no:: (0.6) I don’t: (0.7) can you tell me [where-]

† [ do ] you know what join

‘means†

( . ) can you tell me whereabouts is [that-]

| ( . ) ’listen to Sushie

(0.8) yes:

( . ) listen to Sushie

( . ) li’sten

( . ) you tell me what join ‘means:

(6.2) know what join ‘means (1.8) you ‘flattening my hair
Phoebe

Transcription One: 23.8.95

d’you know what’s sweets I buy n e:x:rt {likjis so ‘lifotz}

(1.2){likjis so ‘lifotz}=

= are they your ‘best swe:ets

d’y- are you allowed to bu:y ‘sweets

are- are y’allowed to bu:y ‘sweets

d’y’how ‘often d’you ‘have swe:ets “then”

can you go to the sho:p and ‘buy them

{mjep’}

and what d’you ‘do when you go to the sho:p

(1.4) pay for em

(0.7) d’o you (1.2)

with your ‘own mo:ney

(2.7) d’you ‘pay for them with your ‘own mo:ney

{mjep’}

(1.9) mmm (.) ‘what d’you ‘say ‘when you ‘go into the ‘shop

(1.3) tha’nk you

(0.9) that’s ‘really polite

(2.1) and then wha- what d’you ‘do after you’ve said tha’nk you

(2.7) to the ‘lady in the sho:p

(0.8) I’eat them

you èat them

(0.9) d’you ‘eat them ‘all at o’nce or do you sa’ve some

c eat em all a o’nce

dó yer(1.0)

and then d’you ‘go and ‘get some mo’re

(0.9) hhhhhhhhh.h.h.h.h.h

(2.1) go and get some móre ýéah
(3.0) I heard you 'went to Bridlington yesterday did you go to Bridlington

(3.9) did you 'go to Bridlington

[mjep]

(0.8) 'what did you 'do there

(6.5) what did you 'do there, Phoebe

(.) we ad some 'chips

(1.5) did you 'walk by the sea

[mjep]

(.) what else 'did you do

(6.9) 'what else did you 'do

(1.6) what did you d’o at Bridlington

(5.8) can you remèmber

(1.8) "yeah"

(.) tell me 'what you di ‘d

(2.0) walked by the sea=

=mīn

(5.4)’what did you do (.) by the sea

(6.1) ‘what did you do

(3.9) d’you remèmber

(3.5) what you did by th- (.) by Bridlington

(.) by the sea at Bridlington

(3.4) did you ‘ave a walk along the [. beach]

[yeah ]

(.) òyeahò (0.6)

did you ‘go in any shops

(4.7) † did you ‘go in any shops †

(.) no

di ‘n you (1.4)

did you ‘go and ‘see; (.) a . show

(1.0) { mjep}

(.) what was it abóut

(2.0) ‘what was the show about

(7.2) can’t you remèmber

(2.7) have you for’ gotten what it was about =

=[mjep]

(.)aa‘:h (1.2)

oh de ‘ar

(1.0) who did you go to Bri dlington with

(3.3) can you re’member who you went with
(5.4) Phoebe
(1.9) can you remeber who you went with
(2.7) went by my'self
(0.6) 'di `d you ↑
(2.1) did 'ngela go
(1.0) "{mjep'} ↑
(0.9) no
(1.2) did you 'go on a bu's
(. ) "{mjep'}
(0.6) did you 'go on one of the (. ) 'Forest Hou`se buses
{mjep'}
which o`ne
(1.6) 'what , colour was it
(4.3) ↑ 'what , colour was it Phoebe↑
(4.7) Phoebe (. )
'what co'LOUR was it
it was a , red colour
a re`d colour
(.) ↑ bri `lliant↑
(1.5) an did you 'sit at the frōnt
(1.6) {jep'}
{o:h 'that must have been , good
(1.0) have 'you 'been on your ho`lidays this year
(1.2) have 'you been on a ho`liday
(2.1) yeah I have
↑ 'where did you go↑
{wu, eru}
(0.9) ↑ with elli↑
{wu`eli}
(0.9)p- pwhelli
no {wudd`di}
(1.2) say a'gain =
={wudd`di}
with eddy
(1.4) {wudd`di} slightly increased in vol and slight increase in pitch on stressed syllable
(1.3) wh- whō's that
(1.1) he's the man who takes me on , holiday
(0.8) oo::h , ri::ght=
{o:o:h ri `ghtº}
(2.2) and 'who e`lse did you 'go with
and who else did you go with
(4.7) "Phoebe"
(1.6) "Phoebe"
(3.3) "Phoebe"
(. ) "who else did you go on holiday with
(7.3) "go with your daddy
(. ) "yeah I did"
S (.) an- (. ) mummy
Ph (.) mummy
S yea'h
(2.4) and who else
Ph (2.8) Dan
S , who's Dan
(4.6) who's Dan Ph oebe
(3.4) Phoebe
(. ) "who's Dan"
(4.5) who's Dan
(3.4) is Dan your brother
Ph {mje}"
S (1.8) how old is Dan
Ph (0.6) 'sixteen
S (.) is he
(2.0) 'what does he look like
Ph (6.0) 'what does Dan look like Phoebe
Ph (0.9) a boy
S he looks like a boy
(1.6) 'what colour hair does he got
Ph (2.3) red colour
S red colour
( . ) is it does he look like you a bit
Ph {mje}
S (6.5) who lives in this house
Ph (8.5) Phoebe
(2.0) 'can you tell me who lives in this house with you'
(5.6) 'quite a lot of people aren't there
Ph (0.7) {eapipnae}
S (.) who lives in the house
(7.8) who lives in the house
Ph 'Andrea
S ( . ) A'ndrea
Ph 'Andrea
"who else?"

(6.9) "who else"

(4.5) is there another girl in the house

(5.3) ye’ah

(1.0) is there another girl in the house

(2.1) ‘who is it in the house

(1.5) Phoebe:::::

(0.7) you’re ti `red aren’t you

(1.2) are you ti `red

Ph (0.7) {mjep}*

S ‘why you _tired

Ph (1.8) I like being tired

S (.) do you _like being ‘tired

Ph {mjep}

S (0.8) ‘why d’you ‘like being ti`red =

Ph = I do

S (2.1) d’you ‘like ‘going to sle`ep

Ph (1.1) {mjep}*

S (.) ye’ah (.)

‘what else do you ‘like do`ing

(6.4) ‘what else do you ‘like do`ing

(2.9) Pho`be

(3.6) ↑‘what else do you ‘like, doing, sweetheart↑

Ph {gautodat}

S (0.8)d’o you

(2.1) is that ni`ce

Ph *{mjep}*

S (3.1) and what ‘else d’you ‘like do`ing

(7.3) what ‘else d’you ‘like do`ing

(5.0) ‘what’s your ‘favourite thi`ng

(4.9) tell me

(3.1) ↑can you ,tell me↑

(.) you got a _lovely_ smile

(1.6) it’s ‘lovely when you smi le

(3.1) what ‘else i- (.) do you li`ke

(.) what’s your ‘favourite ‘thing in the wo`rld

Ph (12.9) {swa`mın}

S (0.9) spinning

Ph (0.6) {swa`mın}

S (1.3) ‘what’s ,that

(4.9) ‘what is ,it
Ph (2.5) sjumn
201  S  (. ) swim
202  (1.3) are you good at swim
203  Ph  {mjep}
204  S  (0.6) what d'you do
205  (1.8) can you do (. ) the 'front cra'wl
206  Ph  (. ) {fjA .n?koo:}
207  S  (1.0) and what 'else can you d'o
208  (4.4) d'you- can you 'swim on your'back
209  Ph  (0.6) {mjep}
210  S  what's y- what's 'what- ( . ) d'you 'like about 'swimming
211  (. ) what's 'good about swim
212  (16.7) what's 'good about swim fio'na
213  Ph  having sweets later
214  S  'are you
215  Ph  {mjep}
216  S  oh what sort
217  (3.0) what sort
218  Ph  (2.9) {taks,sor:lots}
219  S  (1.0) a:h dear they 'sound nice
220  Ph  ³yeah they 'are they're ,niceº
221  S  (2.6) and what 'else do you li'ke
222  (0.7) what 'other 'things d'you like to ea't
223  Ph  easter eggs
224  S  o:hhh ea'ster e'ggs
225  Ph  {mjep}
226  S  'when d'you 'have ,easter 'eggs
227  Ph  at 'easter time =
228  S  =yêa:h
goodness 'me
229  (. ) did you 'have a 'lot at ea'ster
230  Ph  n'a lot at easter
231  S  (5.3) what 'else d'you li'ke
232  (13.5) what 'else d'you ,like
233  Ph  (1.2) mars bars
234  S  ³oh mars barsº they're ,scrummy
235  Ph  (0.7) I 'like them
236  S  do ,you =
237  Ph  =yeah
238  S  (7.7) how 'often do you go ,swimming
239  Ph  (1.2) lots of days
S (0.6) 'lots of ,days
Ph °{mjep}°
S (0.9)'where do you ,go
((Ph chokes while drinking))
S (1.3) 'where do you 'go ,swimming
Ph (3.1) {\& go\&}
S (1.1) in whe' re =
Ph ={\& go\&}
S (0.8)'where's ,that
do you have to 'go on the ,bus to get [there ]
Ph [[{mjep}]]
S (1.4) and 'who 'goes with ,you
Ph (11.9) 'angela
does she
Ph (0.7) m
S (2.4) 'which one's ,angela
can you 'tell me what ,angela 'looks like
S (6.8) can you 'tell me what she ,looks like
S (9.1) can you 'tell me what 'angela ,looks like fi 'ona
can you 'tell me what she ,looks like↑
do you have 'hear that ,radio 'playing
Ph (2.4) {jep'}
S (2.0) d'you 'like mu'sic
Ph (0.6) °{mjep'}°
S (1.2) have you 'got a re'cord player
Ph (0.6) {jep'}
S (. ) 'what 'records d'you ,listen to
Ph [[{mjep}]]
S 'what do we 'have to ,do Pho'ebe
Ph (2.5) buy 'sweets s'afternoon
S (0.6)you gonna have some 'sweets this afternoon
Ph {mjep'}
S (0.7) wów
do you have tha' t one then
(5.4) ri ght (.) do you want to go first

S that was good wasn’t it
(1.5) how many are there
(1.6) can you co’ unt them for me =

Ph = {mr’ an} (2.1) two (1.6) three (1.7) four

(1.3) five (1.5) six (1.5) seven (2.1) eight (2.6) nine (2.1) ten (1.1) even

(1.5) two’ve

S tal’ liant

(6.4) played that beautifully
(7.2) they’re funny aren’t they
(1.1) funny fish

(1.9) what’s that one (. ) ‘s got funny, e:yes, hasn’t it

Ph {mjep’}

S (0.7) whs- what’s, funny about its, ey:es

(6.9) is it (. ) it’s not the same as that one, is it

Ph no:

S (1.5) what’s different about it

(6.8) oh

(4.7) do you like lêgo

Ph (2.2) no

S don’t you li ke it

Ph no

S why, not

Ph want to lay down

(1.2) ’say a gain

Ph I want to ‘lay down

S you want to ‘lay down

(1.3) you going to sleep

Ph {mjep’}

S who’s that man who lives he’re

(6.4) ‘who’s that man who lives here

(3.3) what’s he ca’ led

(2.9) what’s his na’ me

(5.2) ‘ what’s he called

(. ) ‘ is he ‘called Dave

Ph yeah
is he

"uh"

(0.9) and what's the 'lady 'called who 'lives here

\{ga\} buy some sweets \{sis\} afternoon

are you gonna 'buy some, sweets \{sis\} 'afternoon =

\{mjep\}

(1.4) have you 'got some, money to 'get some

yeah I have

(4.6) "got some 'money to 'buy some""

good

(0.6) "good"

(1.2) 'where you gonna ge't em from

(0.6) from the 'sweet, shop

(0.8) wh- 'where's the, sweet shop

(2.8) in 'Foxton

in Foxton

(3.1) d'you 'go there 'every, day

(0.9)\{mjep\}

(4.5) what do you 'like about 'sweets Ph\oe be

(1.1)I 'eat them

(0.9) what's 'nice about them when y-(.) when you , eat them

(.) w-why do you, like them

they're nice

(2.2)what do they, taste of

all right

(0.7)they 'taste, all right

\{jept\}

(3.5)what 'else d'you 'like to , eat

(4.0) \{tfoklut\}

o:::h lovely:::

(5.8) this is a 'nice, watch

(1.6) 'where did you 'get this, watch from

(3.7) from the 'shop

did somebody, give it to you (.) this [ , watch ]

\{mjep\}

(.) who 'gave it to , you

(4.3)who, gave it to you

(.) did your, daddy give it to you

(0.8)\{mjep\}

(1.4) 'where does your 'daddy, live

(1.0) in a house
whereabouts in Foxton

(3.9) where does Dan live
(5.6) where does Dan live
(3.7) Phoebe

(1.1) in a house
(1.0) where
(.) who with
(0.7) mummy

does he live with mummy

{mjep'}

(1.8) what's mummy's name
(1.5) mummy got a name
(6.4) has mummy got a name

(5.2) do you help keep this house all tidy Phoebe

{mjep'}

beautifully tidy, isn't it

(2.4) have you helped make it like this

(1.1) {mjep'}

(2.4) do you have jobs to do every day

{jepe'}

(1.8) what jobs do you have to do

(5.1) what jobs do you have to do Phoebe

(3.6) cleaning (2.4)

{sautun} in here

(2.4) what in here

(1.7) what do you have to do in here

(. ) cleaning

(4.2) what else

(1.3) hoovering

S hoo:vering

(.) and what else

(4.7) what else do you have to do

(3.0) what else do you have to do

(2.4) hoovering u'p

(2.1) d'you have to do anything in the kitchen

(4.2) {mjep'}

what

(0.7) big 'mug of tea
'make a mug of tea
yeah 'make a mug of tea
d'you 'make tea for you
m 'tea for 'me::
'tea for you
yeah
'like 'cups of tea
do' you
'what's tha't
oh got the ((4 syllables))
and what o'ther jobs d'you do
d'you have to 'clean your _bedroom
(. ) {mjep} clean my bedroom
have you got a 'bedroom 'all to yours'elf
{mjep'}
and wh- 'what's in there
'wha's in your bedro'om
{duet} 'make 'mugs of 'tea
e h
like making mugs of tea
do yo'u
{mjep'}
do you 'make 'mugs of 'tea for , everyone or just you
everyone
(0.9) everyone
(2.4) and does 'everybody 'say ,thank you Ph 'oebe when you 'give em their 'tea
(mjep')
is 'tea your 'favourite,drink
{mjep'}
do you 'go and 'see your 'mummy and 'daddy ,sometimes
Appendix 3.2.

Phoebe

Transcription Two (WISC-R): 20.9.95

1  S  right (.) you ready then =
2  Ph  =yeah ready then yeah =
3   = are you- (.) can you manage

4  (( to careworker ))

5  (3.8) right (1.6) right (.) what do you call this Phoebe
6  Ph  (1.0)i - (.) it's a thUMB
7  S   it is a 'thumb (.) ↑yea:sh↑
8  (1.0) how m[any - ]

9  Ph  ↑there's more] in th kİtchen↑
10  S  (0.9) so'rry
11  Ph  s 'more in the, kitchen if you want it (.)
12  and you got to 'drink that one fi:rst
13  S   well you 'got to - (.') you 'got to e.m. (0.8) 'drink that (.')
14  'drink it . slo:wly (.') cos it's hot
15  Ph  (.){jep}
16  S  how many e:ars d'you have
17  Ph  I got 'two 'ears
18  S  (0.7) uhuh (.) bri liant
19  (0.8)how many 'legs does a 'dog have
20  Ph  (1.0) 'two:
21  S  (2.0) ŏk
22  (1.2)what 'must you do to make 'water boil
23  Ph  (2.3) mm mm ('.) e:x (.) in a këkkle
24  S  (0.7)yéa:sh
25  (6.2) o,kay
26  (1.1) how many 'pennies make a pound
27  Ph  (1.5) 'sixty 'pen (.) por some 'sweets (.) ↑âll ri:ght↑
28  S  (0.9)↑ye'ah↑
29  Ph  I need to 'buy a { 'paxi? a 'tʃəklɪt} eclairs to'day =
30  S  = ↑mɪh[m]↑
31  Ph  [or f] ŭdge =
32  S  = ↑d'you
33  know how many p- (.) 'pennies make a pound↑
34  Ph  (3.2) I 'might buy a big { 'paxi? a },fudge to'day (.') ↑âll right↑
35  () if I get fudge
36  S  ŏkay
37  Ph  I 'love fudge (.) ↑I,do↑ (.) fro[m 'sw]eet _ shop
Phoebe: what do we call a baby cow?

Phoebe: ((one syll)) knows wa wa ((barking like a dog))

(.) just being a baby cow all right

Phoebe: (1.4) oka'y

(.) do you know what we call a baby cow

Phoebe: (1.5) mm m mm =

what do you think it is

Phoebe: (1.0) know what we think it is (.) don't we

S: (0.6) no

Phoebe: (1.5) d you know how many days make a week

S: (2.9) n'o

(1) know how many days make a week

Phoebe: (1.5) le's think (.) sunday

((singing, getting quieter))

S: (1.1) can you name the month that comes after march

Phoebe: (1.1) (drinking tea)

S: ooh careful Phoebe don't drink it too quick

Phoebe: (1.5) can you name the week the month that comes after march for me

S: (1.5) saturday sunday

Phoebe: that's saying here is it a week

S: yeah

S: (1.1) can you name the week the month that comes after march for me

Phoebe: (1.5) let's think (.) suhday

S: (1.4) an what (.) from what animal do we get bacon

Phoebe: (3.2) d you know what animal we get bacon from

S: (1.0) from the bacon shop

Phoebe: from the bacon shop (.) (brilliant)

S: I need to buy some sweets sis afternon

Phoebe: (.) did you wanna buy en (.) some fudg::e

S: I don't know if we're going to the sweet place sis afternoon

Phoebe: I need to have my self if I want to go (.) you be have yourself i you want to go (.) dunno if we're

S: (1.8) all right let me see if we can do some of these now

Phoebe: (1.8) all right let me see if we can do some of these now

(.) ooh (.) where are we there (2.4) now I'm gonna show you

some pictures in which there's a part missing Phoebe (0.8) okay

(.) I want you to look at each picture carefully (1.6) and tell me what's missing

(0.6) oka'y (.) now you look at this one (.) and tell me

what important part's missing

Phoebe: (mnh right)
there's a cat

(1.6) 'nothin very much i ths

what's what important part is missing from the cat =

= the body

(0.9) no it's 'got the body isn't it the body's there

[° got the body °]

fast

(0.6) the whiskers are missing aren't they =

= yes they are
dying away to

inaudible mumbling

have a look Phoebe

(0.9) yeah

(3.3) there we go the whiskers are missing

(( Ph goes into kitchen with cup)) g 'don't have any more Phoebe

(( inaud from kitchen))

no 'leave it no 'come and 'sit down

((long pause while Phoebe does what she wants))

'come on Phoebe

(4.4) just having that last bit all right

from the kitchen

(2.3) 'okay°

(2.7) right o kay no more after that o kay

(1.3) now can you see the cat's whiskers are missing

(0.9) okay'

((mumbling while drinking))

ye'ah

(4.1) see the m whiskers are missing

(1.0) now what important part's missing here (0.6) Phoebe

(0.6) what's missing there

(1.2) in that picture

'look at the picture Phoebe

(1.0) ar j it's funny those they're standing up n see if they are

'standing up c hhh can wee wee ((4 sylls 2 sylls)) all right

what's missing there Phoebe

((drinking noise))

† can you see what's missing†

((mumbling))

(2.9) { &a win'da sau'lef}

(1.3) right o kay

(1.2) shall we try another one
(1.6) can you see what important part is missing in that picture

(10.0) nah (.) the clock

(0.8) which bit

(4.1) the /s/ (0.6) the, six (.) an the four

(1.2) right (.) okay

(2.4) can you see what important part is missing in that picture

(1.2) he's bend down like a (.) giraffe

(0.6) mrmhm

(0.8) 'what is it (.) 'what's missing in that picture

(10.0) oh (.) the six (.) an the four

(0.6) right q kay =

= can you tell me what it is missing (.) 'please =

(1.1) 'what's missing

(1.0) what d'you think's missing

(1.1) er (1.0) I don't know what it is (.) missing

(0.6) right q kay =

look =

= it's his ↑ leg↑ (.) look

(.) there(.) should have another [↑ leg↑ (.). shou]ldn't it

[(inaudible)]

(2.6) "there finish those"(.) cos they're quite hard, aren't they

(4.5) r:hhhght

(3.9) right (.) gonna 'ask you some other questions , now

(0.6) em (4.6) right (0.7) you fi:ished 'that (2.5) Ph oebe

(0.8) e (.). finished that (( from the inside of her cup))

(1.6) okay , put it down now

(0.9) Ph oebe

(1.3) that's it (.) and I'll 'stick it in the 'kitchen 'now o , kay (( takes cup into kitchen))

(2.0) nah (.) m (.) m (.) m you 'muns have another one jus yet (.) because it's 'not

, time f'another one all right

(0.8) have some 'more at l:午饭 [time o,kay ]

(1.6) Ph oebe

[ 'have some] 'more at l:午饭 time okay

(1.9) right I'm gonna 'ask you some 'questions 'now o,kay

y 'ready

(0.9) m (.) that- (.) that's er ≠arι (.) because you can have some 'more at l:午饭 time

okay

(1.3) that  ,you can have some more at l:午饭 time all right
now (.) in what 'ways are a wheel (.) and a ball a like

(1.3) er (.) it 'noes up an down

(0.9) say again

{\textit{?}} 'goes 'up an down

(.) goes 'up and down

(.) well (.) they both rŏ::nd (.) aren't they (.) and they 'both rŏ::ll

(0.6) °they rŏ::ll°

(.) o,kay

Ph \{mjep\}

S so (.) now 'tell me (.) in 'what wāys (0.9) are a candle (.) and a lâmp alike

Ph (1.0) \{ kənəlzoʊləmpələuk\} \textit{fast}

S (0.9) in what 'way are they alike

Ph (2.5) I think I'll buy \{swās\} some 'sweets \{sis\} afternoon (.) all right

S yea'ch (.) o,kay

(.) ↑[b' you 'tell me ]↑

Ph \[ 'give you some 'sweets]\]

S (.) in what wāy (0.8) are a 'candle and a lâmp alike

Ph (4.0) err (5.7)

S ↑no shall I 'tell you↑

(1.6) they 'both 'give light

Ph (.) they both \{gd\} līghts

S (.) they 'both give, light (.) dōn't they

(0.8) so (.) in what wāy (0.7) are a shi rt (0.6) and a hât (.) a 'like

Ph (9.4) \{fəzələuk\}

S (1.3) do you know (.) in 'what wāy (.) are a 'shirt (.) and a hât (.) a 'like

(.) 'how are they the sāme

(4.9) n'o:

Ph (.) no

S o,kay (2.7) 'hard questions, aren't they (.) right (7.2) 'put that 'back a ,minute

(7.4)((3 sylls))(4.1)

Ph 'hope you're 'going some 'coca cola to-night =

S = aːre yer (.) nōːw

Ph d'you know what sweets I'm 'buying to'night (.) some \{lʊkəsəlfəts\} (.) all right

S (.) now (.) thèse pictures (.) 'tell a s torːɪ (0.8) oka'y (.) about a

{lady who [ ,weighs herself ]}

Ph \[have a côke (.) an\] \{lʊkəsəlfəts\}

(.)"((4 sylls))°

S (0.6) a'bout a lady . who wēighs herself on a s cālē (.)oκa'y (3.1) the pictures (.) are

in the ,wrong ,order (.) they're ,mixed ,up (0.8), now 'watch how I 'put them in the

'tright order (.) so that they 'tell a stoːrɪ (0.6) oka'y =

Ph \={mjep}
Appendix 4.1.

Gary

Transcription One: 25.5.95

1. G don't want any more 'training toda'iy (.) had e'nough of training

2. S (0.6)you wh'at

3. G had e'nough (.) of training

4. S (. ) have you had e'nough of training

5. (. ) it's hot to'day any'way isn't it

6. G it's gonna 'thunder to night

7. S (. ) d'you think so (2.5) d'you th'ink s'o

8. G wh'at

9. S (. ) d'you think it's gonna 'thunder to night

10. G (0.9)no:

11. S (. ) no:

12. G (1.5) it won't 'thunder to night cos it's 'hot we'ather jnmit

13. S (. ) yë:ah (0.8) it 'sometimes thunders when it's hot though doesnt it

14. (1.7) yë:ah

15. G no no 'thundering to day

16. S (. ) 'no 'thundering to'day

17. G (. ) 'why has it gone 'now

18. S (0.5) wh'at

19. G (. ) 'thunder

20. S (3.1) errr (.) yë:ah

21. (. ) did it 'thunder 'here yester'day

22. G (. ) it dj dj didn't it(.) (( makes thunder noise))

23. S ooh dear (1.6) what did you th'ink of that

24. G thu:mmde zr

25. S .hhhhhh (1.1) what did you 'think of the 'thunder

26. G (3.9) what's thu:nder

27. S (. ) ye'ah

28. G (. ) 'thunder l'ightning=

29. S =yë:ah

30. (. ) what [ d-]

31. G ↑[ s ] că red of it ↑

32. S (. ) ↑we're you ↑(1.1)

33. why:

34. G ((makes thunder noise and gestures))

35. S oo:sh dear (1.4) was it 'really ló'ud

36. G (1.1) ti:s 'loud it ↓↓s
(0.8) and did it make you jump

(0.7) say shut up 'thunder

(.) d'id you ' (2.5) and d'id it

(2.4)[1:- ] I didn't hear it

[\text{n-}]

(0.7) you didn't hear it

(1.0)bang

(.) you didn't hear it 'bang

(2.0).hhh hhhhhhhhh

(0.6) what you been doing to-day then 'Gary =

(1.5) golfing

(.) golfing

(. ) you didn't hear it bang

(1.0)ting

(.) you didn't hear it bang

(2.0)hhhh hhhhhhhhh

what you been doing to-day then 'Gary =

(1.0) golfing

(.) golfing

(. ) you been (.) played go if to-day↑

(0.9)((4 syllables))

wo ooo

(.) did it go a 'long way

(1.4) I had do training 'after and it's really h'ard to 'do training'

(1.0).hhh ((4 syllables)) 'miles an hour

(0.8) 'how many mi les↑

(1.6) I 'want to leave me(.) I 'want to leave me

(0.6) why↑

(1.1) I don't like it (. ) I don't - (. ) I want to leave 'somewhere

(1.0) where d'you want- (. ) what (. ) you 'want to leave here

(1.1) yeah

(.) why↑(2.8) why ' Gary 'tell me why↑

(1.0) I want to leave now

(2.1) why↑(1.5) can you 'tell me why↑

(0.8) what

(0.8) why d'you 'want to leave

(3.5) I want to leave now

(1.6) and 'where would you go,

(1.0) nother job

(2.9) aah (1.1) what 'sort of job

(0.9) 'cleaning wi ndows

(0.7) 'cleaning wi ndows

(1.2) d'you want to clean wi ndows↑

(1.1) yeah

(0.6) why
I want to leave. I want to leave. I want a leaving present.

Tell me what you've been doing. Gary.

Something to say. Is it good for yer.

Yes = tickly feet.

Who says 'tickly feet?

Tickle Malcolm's feet.

I want to leave. I want to leave. I want a leaving present.

Are you be really strong.

Arrange it for me.

If you were leaving. You're not gonna leave, are you?

{judis} - yeah.
what happened then
lights go off

that was strange wasn't it

I want to leave
no you don't
I'm a-I'm leaving

I feel sad I'm (.) feel sad

you want to live somewhere nice

this is nice
this's place is nice

I want to leave (.) somewhere nice

it's nice here (.) isn't it

why not

what makes noise

I want to march

you want to what

"march"

I want to march

what do you mean

what's marching

(syllables) {sain't_s}

sci'ence

{saunt_s} = silence (2.6) and d'you like silence

yeah'yeah'

'yeah' (0.6) and d'you like noise

can we do that (.) silence

what d'you mean by silence- oh what 'where I say silence please'

(0.9)yea[ah]

[no-] (.) no(.) silence in remembrance

in remembrance

(1.4)'yeah' (.) what ha- 'what d'you have to do
(0.6) be quiet
(1.4) ok kay
(0.9) ↑ we'll be 'silent then shall we ↑
(0.9) [you s- ]
[no- (1.0)] ↑ 'stand
(1.1) ↑ 'what we got to do ↑
(2.7) got (1.2) got to stand cos (...) 'people die in the wars
(0.8) oo:sh rig::ht
(0.8) have you 'been to 'one of those ceremonies 'then
(.) can do: that can't we
(1.8) we could do that
(1.6) why don't you 'tell me when- about 'when you 'went to do 'that
(0.8) hhh in'here
(0.8) aaah (...) did you do it in here
(2.0) 'what did you do
(0.8) {sai1ent_sss}
(2.6) can we do: 'that
(1.5) can we do: 'that
(0.6) yéah
(0.8) can just 'have silence (...)we can just stand (1.4) and 'have silence
(1.4) where
(0.6) ↑ here↑
(1.7) in ere=
(0.9) ↑ yeah↑ is that 'what you want to do↑
(2.5) where (...) 'down he- (...) '{down} (...) 'on ere
(1.8) oh ay
(0.9) ↑ all right 'then↑
(0.9) ↑ we'll just s:and and 'have silence 'then↑
what does silence mean
(1.2) I don't know you tell me 'what it 'means=
(0.9) ↑ right↑
(0.6) 'silence 'means (0.9) d'you 'know what si lence 'means
(0.9) hh hhhhhh (...) what
(0.8) you 'tell me 'what silence 'means
(1.1) si lence ((3 sylls)) in the 'war
(1.7) have to 'stand this 'far then (...) without talking
(4.4) 'right (...) 'that's it
'what's silence mean
that's when you're quiet
Appendix 4.2.

Gary

Transcription Two: 23.8.95

1 S what’s happening (1.4)
2 ↑what↑
3 G (1.0) "what"
4 S what’s happening tonight
5 G "come di'an"
6 S (0.8) who is
7 G "comedian"
8 S (.) ↑a comedian↑
9 (0.5) which, one
10 G (0.6) Duncan Novell
11 S (0.6) what’s he coming for
12 G to give us a show
13 S (0.5) mmhmhm
14 (0.7) why?:
15 G (.) he li’kes me
16 S (0.6) does he
17 (1.6) who i’s Duncan Novell
18 G (.) he’s the um (2.3) li -lives in Foxtson
19 S (.) does he
20 (1.3) ‘what does he, do
21 G (.) ‘tells {dʒaʊk.kssss}=
22 S = are they any good
23 G (0.8), "yeah"
24 S (2.0) ‘what ‘sort of jokes can you re_member ‘any
25 G (4.6) can I introduce him
26 S (1.3) who
27 (1.7) ‘go on, then
28 G (1.6) w-what
29 S ‘go and introduce him
30 G (3.4) ↑əː↓kəʊ then
31 (1.6) it’s not (‘4 sylls)
32 S just sit- ‘sit down (. ) and (.) introduce him ‘sitting down
33 (.) “then you can just, do it, can’t you“
34 G (1.6) ‘no::: I ‘mea:n (. ) in ‘Forest, House
35 S (. ) ‘what
36 G (.) cos I want to r-arrange it
37 S (1.0) oo:sh
(0.6) arrange what
40  G (.) the comedian
41  S (.) oh oh
42  G "yes"
43  (0.9) can I move all the chairs out the way for im
44  S (1.0) yeah but not now
45  (1.0) do that later
46  (1.8) "what have you been doing this morning then"
47  (.) "who were you with"
48  G (1.0) Tom
49  S (.) oh what were you doing
50  G (2.9) I was (0.5) Tom (.) to day
51  S (0.7) "what were you doing with Tom"
52  G (1.4) washing the buses
53  S (1.0) why
54  G (0.9) cos they were dirty:
55  S (0.6) "ow did you do it (.) 'what did you- (.) 'what did you do: (0.7)fi rst
56  G (1.8) sponge
57  S (2.9) n then 'what did you do
58  G hhhhhhh "it's 'ot in this place" [whisper]
59  S (.) this
60  G (0.6){tie}s
61  S (2.0) "what did you do fi rst
62  G (0.7) clean the buses
63  S (1.0) "what did you get (.) befor you start cleaning em
64  G (0.7) get- (.) a bucket of wa ter
65  S (.) oh yeah and what else
66  G (.) na sponge
67  S (0.7) and then 'what did you do
68  G (3.1) d'you know what
69  S (0.8) what
70  G (0.5) I want (0.8) I {want.tom} (.) {kə'miː} to come to visit me
71  S (0.6) who:
72  G (0.5) comedian
73  S (0.9) n 'what d'you want him to do
74  G (1.1) 'tell some jokes at 'Forest House
75  S (.) right
76  S (.) 'maybe one will, come
77  G (0.6) what
78  S (.) 'maybe one will, come
312

(1.6) 'maybe a co'median will come (0.7) n' visit you

G (1.2) mè

S \(\uparrow y\)èh\(\uparrow\)

G (1.0) vi` sit me

S (\(\uparrow y\)èh\(\uparrow\)

312

84 (1.6) *got to open that window (\(\cdot\) it's ever so stu \(\text{ffy}^\circ\) whisper

85 (1.7) 'maybe a co'median will come to Forest 'House

86 G (5.0)yèah- he mìght come hëre

87 S (1.7) * might d,o:: *

88 (1.8)be 'good if he did

89 (5.2) oh 'that's a bit 'better in't it

90 (3.7) would you lìke it if a co'median 'came

91 G (1.0) 'yes:'

92 S hhhhh.hh

93 (1.8)'what were you 'doing with Tôm this 'morning

94 (2.0)'what did you do::

95 G wash the buses

mumbled

96 S (\(\cdot\) q::h yeah

97 (3.3)what else have you been 'doing

98 (\(\cdot\) \(\uparrow\)have you been on hòliday\(\uparrow\)

99 G (1.6) n::g (\(\cdot\) I hâven't

100 S (2.4) haven't you been any'where

101 G (1.0) 'drinking piv::nts

102 S (\(\cdot\) \(\uparrow\)'drinking piv::nts\(\uparrow\)

103 G (1.1) fóur

104 S \(\uparrow\)whè::re\(\uparrow\)

105 G (0.9) in the p(hhh)q(hh)b

106 S (0.8)you hâven't been 'drinking 'pints have you

107 G (\(\cdot\) course I've drinking 'lo::ads

108 (1.1)hkkkkkk

109 S (1.1)wha- what 'pub we- did you go to

110 G I don't 'know::w

111 S 'who did you go with

112 G (1.1)malcolm'

113 S (0.8)màlcolm

114 G (2.0) 'know what'

115 S (\(\cdot\) what

116 G (1.4) can I (\(\cdot\) arrà::nge (1.0) me and you (1.7) can I s- (\(\cdot\) at Forest House (\(\cdot\) w-

117 would they move all the chà::irs (\(\cdot\) d- get qorganised for im

118 S (1.0) they might 'do

119 G (\(\cdot\) they might do wòun't they '
all the chairs 'move out the 'way for 'him

(0.7) they might 'do (.) you'd have to ask them
(2.3) you'd ave to ask them if they'd allow it
(2.5) they might do

(0.6) can we 'do it now
(0.6) if you - if you've got time to do it
(0.7) no (.) we can- we an't (.) really got time 'now
(0.8) cos we're doing this 'now aren't we

(0.6) after
(1.3) well we'll see (1.0) okay
(2.8) what've you been doing then
(.) have you been 'doing any training
(0.8) you've been on any walks

(4.0) me (.w- walks
(.w have you been on any walks
(3.4) n- no;
(0.9) haven't you

(2.4) hhhhh (5.9) comedian
(1.6) (3 syllables) do that later
(.) if sten to it 'later
(3.2) la::: - (.) we'll get everybody in here (.) right (.) and get everybody in here
(0.8) gonna say \ladies gentleman\n
(1.0) (hhhh) and 'then what

\come comedian\n
(1.4) and 'then 'what will happen
't all cheer for \im\n
(hh) \w::w\n
(0.9) I want to do that - (.) one day
(0.6) you 'want to what
(0.6) arrange it to 'come here
well perhaps you can one 'day
(3.1) you've been to the seaside

(0.8) hhhhh (1.0) no I 'aven't been to 'seaside for long 'time
(.) oh dear
(.) can you remember the last time you went to the 'seaside
(0.8) no
(2.9) have you been able to 'see yer mum
(2.6) no:::
(.) haven't you
(.) have you 'just been at Forest House
(1.8) yeah
(2.1) with Malcolm
(2.5) .hhhh ye::p à::h hhh
(0.7) what else have you been 'doing
(1.7) më
(.) yeah
(1.6) what 'me::: 'doing
(0.6) † what you been doing †
(0.7) you been 'doing 'anything good
(2.0) wash the- (.) 'washing the buses
(1.4) † anything else †
(.) dri- (.) this- (.) 'tidying em all up
(.) ôh right
(2.1) you warm (.) hhhhh
(0.6) it's getting a bit cooler 'now (.) cos the window's 'open isn't it
(0.6) can I: e::m (0.9) can I: (1.0) can I have a microphone in here
(2.3) we've got a 'microphone here look
(1.9) 'Duncan Novell'
(2.0) can I say it
(0.8) † yeah †
(2.2) † go on then †
(0.8) what
(.) say 'Duncan Nqvell
Appendix 4.3.
Gary
Transcription Three (WISC-R): 5.9.95

right (.) you ready to answer my questions then
we gonna do some questions then (1.1)
yeah
what's the {ta} recorder gonna do
it's just gonna sit there (1.5)
and it's gonna tape what we say
(1.2) it's gonna tape my voice
(.) yeah (0.7) right what you call this 'Gary
(.) it's like a thumb
ti's like a thumb yeah
(0.9) hhh how many ears d'you have
(1.5) not ears
(.) how many [ear-]
[ got | two _ears ]
[yè::]ah you 'have
[we] thi' nk twenty 'four but no t
'certain =
= I think you're probably right 'actually (.) one said twenty six (.)
other' said [twenty] seven (.) I'll check at the -
[yè::ah]
(4.0) who to- (. ) who twenty fo::ur
(2.8) how many le- (. ) lègs does a [dò g 'have]
[I'm twenty fo::ur today]
are you twenty fo::ur
(.) how many (. ) how many lègs does a 'dog 'have
'two '
(0.7) ok ay
(1.4) hhh what must you do:: (. ) to 'make water boil (. ) 'Gary
(2.4) 't in't my birthday today 'is it that's t-twenty three today '
(1.4) do you 'know what you 'must do to make water 'boil
(2.1) 'me- (. ) what (1.0) 'take off '
(0.7) no okay (.) don't worry
(9.4) ok á:y
(1.4) hhh 'how many pènnies make a pound 'Gary
(hhhhhhhhhhhhhhhhhhhhh)
no
(1.1) 'fifty po::unds ::::
(1.8) err (.) er- (.) 'not (.) baby cɑːlf::
a 'baby cɑːlf (.) 'very 'good
(.).hhhh and 'how 'many dɑːys make a wee'k
(5.1)' oh * (0.8) was ɑ dren said (.). wa-was-it was ɑ dren 'looking for me
(0.6) 'o'h I don't knōw (.) no no'he was jus- (.) he was just (.) doing something 'else(1.1)how many dɑːys 'make a 'week (.) 'Gary
(0.9) 'that's lo'vely
(1.7) {teɑn} que's'tion
(1.1) okɑː:y
(2.0) hhhh mmm (.). can you 'name the mo'nth (.) that 'comes after mɑr'ch
(1.5)* {tʃɪˈsɛmbə}’
(0.9) 'that's lo'vely
(1.3) 'I'm a tɑl[l to] it
[and] (.). from what ɑnimal 'do we get bɑːcon
(.) from plɪ gs
aaːh you 'clever thɪn'g
(1.1)I 'talk to it a bit if I'm 'good
.hhhh 'how many tʜɪ ng (.) make a dó zen
(0.9) {dɑːzəbə, pəʊnz}
(.)↓ that's lo'vely↓
(1.2) oo'h (.). can you 'tell me (.) 'what are the fʊr ɻɪ ɻɛəns of the yɛə:
(1.3) octo ɬɛə (.) todɑːˈʃɪ]
sing song
(hhhh) =
= it's octo ˈber tod ɚːʃ
(0.9) Gɑ'ry (.) can you tel(l me (.) 'who disc 'overed Amɛrɪca
(1.1) mɛrɪca
mnɪ hm
(1.3) 'I know
(1.9)[who]
[John ] Mɑːjør
(.).nɑːːə
(.'John Mɑːjør=
(.) ɡoʊm meɪəd ʃəːoː ↓]
[ ɡoʊm meɪəd ʃəːoː ↓] voice quality
stoːmɑːch (.) 'do
(1.1).hh' mɪf
(0.9) hhhhhhh

(. ) makes you 'ill

(2.8) shushee : (0.6) tickly feets :: whisper

(1.3) o'kay ( . ) that's lo' ve' ly

(1.3) . hh a : nd ( . ) can ' you tell me ( . ) ' Gary ( . ) in ' what direction ( . ) does the

sun set

(0.7) that way

(1.8) ' what's the ' sunset do o::

(1.0) that was when the sun goes down ( . ) i' sn't it

(1.2) tell me ( . ) is it the sunset do

(2.7) tha's when the ' sun goes do wn at the ' end of the do ay

(0.8) it goes all r ed and bei' nuf ul

see the- ( . ) . hhh see th' a : ll lo vely ' col ours on it

(1.2) and it's ' sq::: ' bea' tiful Ga' ry

(0.8) I don't like

(0.6) you gonna look at some ' pictures for me now

(1.5) yéah

(1.7) let me just ' have a look in my bo ok

(1.9) did ' very well on th' at test I mü st say

(2.3) I mü st say'

ó k ay

(1.0) oo'h ( . ) ' dropping me thi' ngs ( . ) ' goodness m e =

= â ::h ( . ) I ' ve ' seen that

before

rj :ght ( . ) ok ay

(2.3) no :w ( . ) can you tell me ' Gary

(1.2) I'm gonna ' show you some pi' ctures ( . ) ok ay ( . ) in which there's a ' part

missing (1.0) . hh I want you to ' look at each ' picture c a reful ly (0.6) and tell

me ' what's m jissing

(1.0) ok ay ( . ) † can you ' tell me what's ' missing in thî s ' picture †

(1.6) is a ta il ' missing

(2.1) we can s e e the tail ç a n't we

can you see the ' cat's ' whî skers are ' missing ' there

(0.6) whî skers are ' missing =

ye'ah ( . ) the whî skers are ' missing ' there

(1.0) ok az y (1.3) † shall we ' look to the ( . ) ne xt ' one † and s e e if we can s e

(1.4) no :w ( . ) can you tell me what important part is ' missing from thât ' picture

(1.0) the do ll is ' missing

† can you show me whe re †

((points and taps))
that's very good

what's that for

that's (2.1) to- ti me it to make 'sure I give you enough
ti me to 'answer

(1.7) okây

(0.8) what's thqt for

(1.8) an àngle

(0.8) the whât

an àngle

(0.8) yeâh

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - whos- who's- er -who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're

(1.9)((3 syllables)) who - who's- er - who's saying I'm twenty 'six

toda y

(2.3) shall we have a'nother lo ok at an other 'one

(2.6) can you 'show me whe're
319

160. (1.1) 'put those away 'now
161. G (0.8) put away ho aw
162. S 'put them away' now
163. G tickly feets () tickly feets
164. S (hhhhhhh)
165. G tickly feets
166. S (2.3) tri'ght↑
167. G (2.2)'how's your expr (2.0) 'how's your doc'tor (. ) how is he
168. S (. ) 'how's me doc'tor
169. (2.4) he's all right =
170. G
171. S wh'o my doc'tor
172. (1.6) my doc'tor
173. (1.3) ooh 'I don't kno w (. ) my 'doctor's a wo'man
174. G (1.3)'wha't'
175. S (0.6) 'my 'doctor is a wo'man (. ) a la'dy
176. G (. ) she my fri'end
177. S (. ) too'h↑ I don't kno w (. ) d'you think she mi'ght be↑
178. G (. ) y'yeah
179. S (1.0) I think she might be your fri'end too
180. (.) I don't think you've met her th'ough
181. (. ) but I'm sure if you di'd meet her you'd be fri'ends with her
182. G 'what' do they call her
183. S they 'call her expr (2.2) expr
184. G (1.2) ò:h
185. S (. ) 'Doctor Wa::de
186. G (1.0)'wha't'
187. S 'Doctor Wa::de
188. G ↑{hajín 'dun ↑( . ) da'- dènts:}
189. S (0.7) ↑ye'ah↑
190. G (0.8) is it- is it i' m
191. S (0.6) no, (. ) I think it'll prob'ably be a di f'ferent one (. ) cos 'my 'doctor's a la'dy
192. 'doctor
193. G (0.8)'Doctor Wa::de =
194. S = m'hmm =
195. G = {anæ} ear'of im
196. (0.8) my fri'end in 'è
197. (1.6) doc[te-]
198. S ↑[ye' ]ah↑
199. G (. ) he i's your 'friend
200. (0.8) ask im to come to 'Forest House one day
I'm gonna ask you about some things now okay.

Can you tell me in what way are a wheel and a ball alike?

The red ball.

Do you think they're both round and they both roll?

I'm gonna ask you some more questions now okay.

In what way are a candle and a lamp alike?

Put the lights on please. I'm slightly breathy voice quality.

I know it's very hard.

Hmmm can you tell me Gary in what way are a shirt and a hat alike?

It's a shirt and a "tardigari".

That's very good Gary because I must admit those are very hard questions.

Got some other things in here for you to have a look at.

Now I'm gonna ask you what some words mean okay.

Is that okay?

Cos you're doing very well on this test.

First of all can you tell me what a knife means?

What knife means?

What knife means?

Now Gary I'm gonna ask you what some words mean okay.
(.hh).hhh (6.3) .hhhhhhhhh hhh .hhhh (;) a knife

242 G [.hh].hhh (6.3) .hhhhhhhhh hhh .hhhh (;) a knife

243 S (. ) uhuh

244 G (0.7) 'cut way through bread

245 S (0.8) you what

246 G 'cut bread

247 S (.) 'cut bread (. ) yeah

248 G (0.9) thank you

249 (2.0) does it (.) does it (.) does it (.) does it (.) does it 'film me'

250 S (1.5) 'that tâ pes you yes

251 (1.2) yeah

252 (1.0) we hopé

253 (0.9) that's lovely Gâry

254 (.) no : : w ( . ) can you tell me (1.3) .hh 'what is an umbrella

255 G (1.0) ss'ra i:nning

256 S (0.9) it's for râ i ning ye ah

257 G (1.2) that ( . ) that 'corders me

258 S (0.6) mni hm

259 (1.8) .hh 'what about a clock

260 (1.6) 'what is a clock

261 G (7.3) {waɪ} it doing

262 (3.0) {ʃɑːfiː}

263 S it's recording us Gâry

264 (2.5) 'tell me 'what does clock ( . ) 'mean

265 G (1.3) {ˈtʌɪksː}

266 S (1.1) that's lô vely

267 (1.1) 'what is a hat ( . ) 'Gary

268 G (1.7) 'stiː tches'

269 S (0.6) 'sti tches '

270 ( . ) okâ: y

271 (1.2) and 'what is a bi' cycle

272 G (4.0) 'stiː tches '

273 S (1.7) 'ɪr m ' 3.8)'a::nd' ( . ) 'what is ( . ) a nail

274 G (1.4) wha's a sti 'tches

275 S (1.9) 'tell me 'what is a nail ' ( . ) 'Gary

276 G (1.1) sti tches

277 S ( . ) okâ: y

278 (0.9) that's fi' me

279 (1.0) can you tell me ( . ) 'what does ( . ) âphabet 'mean

280 G (2.2) .hhhh HHHHHH (;) it like a' sti 'tches'

281 S (0.7) okâ:y

282 (1.1) that's fi ne
322

283 G (9.8) where'd you get this- (. ) little microphone from

284 S (1.0) I 'got it from 'where I wor�

285 (0.9) they let me borロw it (. ) that was nǐce of them wasn't it

286 G (2.2) what'd they say to you

287 S (2.5) èh

288 (2.0) careful you don't turn it off (. ) that's it

289 (.) yeah

290 (1.3) 'what did you ask me'

291 (3.9) 'what did you 'ask me Gary'

292 G (0.7) jus( - (. ) anwerinq questions bout . hhhh (. ) {baʊh}

293 {wɛldaspɔt}

294 S (0.7) about what (. ) 'world of spoːrt

295 (1.0) d'you like 'world of spoːrt

296 G (4.3) got any questions

297 S (1.9) jus gonna (1.2) 'do some things here
APPENDIX FIVE

Appendix 5.1.

Mary

Transcription One: 29.3.95

1 M E' lly:

2 E ye::ah

3 M (0.7) when you going 'home again

4 E (. e::rm (1.1)

5 it's (.) this fri::day I'm going 'home

6 (0.7) it's this 'four 'week

7 (1.4) 'sunday nj::g[ht ]

8 M [E'l] lly

9 E (0.5) ye::ah

10 M (1.2) at 'friday night (.) what time is your mum and dad p'i::cing you 'up

11 E (1.0) e::r (.) me 'dad picking bout half (.) bout 'four clo ck[ish]

12 M ((3 syllables))

13 E (. ((2 syllables)) (1.4) sss (.) some 'nights s'it's six o clock

14 C (0.6) I make a good a cto::r|

15 S (1.9) i interviewing (.) you i interviewing E'lly (2.5)

16 C go on then i interview her

17 E (.yeah (. ri::ght (.hh aah ri::ght Mary (. er, m (0.9) {k-} (1.0) .hh

18 C (1.1) 'who's 'interviewing who

19 E (0.6) are you going to 'interview E'lly (.) or is 'Elly going to 'interview you

20 M (1.0) n-(.) no (. I'm 'going to er (1.3)

21 E what f's

22 C (1.0) 'who's going to 'interview [who ]

23 M [no]body

24 (2.1) .hh no t her=

25 E =hhh

26 M E'lly

27 E (. ye::s (1.8) ye's 'Mary

28 M (1.7) when is the-(.) 'when is the a dvocacy group on a'gain

29 E (1.2) e-(.) e::rm (2.6) 'think it's on er,(.) 'April the twenty sj xth (0.6) at

30 (1.1) the 'ba::rn in Hääpfie[ld (.) half six ti::ll (.)]

31 M [can you take that o ff just to be a microphone if

32 you wanted]

33 E [

34 E half past e::ght =

35 S = e::h
can you take that off just to be a microphone if you 'wanted

(0.8) you'd have to 'plug it in to sq mething you 'd have to 'plug it in to::

(0.6) d'you know what an a mplifier is

(0.7) [ả ả ả ả] voice quality

(0.8) it's like a-(.) [a mmm]achj::me that makes the sq und (.) [lò uder ]

[.hhhhhh] [what e lse] can

you make it into =

= yèah =

= you could (.) 'plug it into::: (.) well thǎt's it 'really

(2.4) would you 'show me

(1.3) well I haven't got an` amplifier here

(0.8) [you can't - (.)) you can't ]

[no would you show me h]ow to get that off

(0.6)· you just pùll it off (0.6)' just pùll it off ' (0.6)' that 'comes qff' =

= how

d'you do 'that (.)) like 'that

(1.2) that just 'comes q ff thère

(0.9) from à ll over 'then =

(1.8) nò; [(.) ]' nò:’

(.) so[ tha - 'whats an 'amplifier ]

[if you had an â mplifier you could 'use it to si' ng through

(.)whats an a mplifier

(.) it's like a 'big 'box thi'ng (.)) with lots of wi' res in it (.)) that 'makes the

'sound lou ë der

(3.0) could you 'sing through thàt if you wanted

if it had an a mplifier on it I think you could yeah (1.9) do you li ke 'singing

(0.6) yes

(3.0) do you like 'singing at dj scos (.)) [d'you do - ]

[.hh (.)) 'WHY 've you ] got CÉrtain

pe - PEople (.)) reco rded

(2.5) just to 'see(.) w-(.) 'what they sa:y (0.6) 'what they ta:l k like

(.) how you spe ak

(.) 'why haven't you reco rded (.)) reco rded (.)) some of the 9thers

(0.9) because I can 'only reco rd so: many 'people =
= will you re'cord e::r (1.5)
the o thers (.) after me (.)
I mi_ght 'do (.) so me of them (0.6) but I [can't -]
Elly and 'that
I mi_ght 'do (.) it just depends (0.9) the's -(.) you've 'only got 'so
'much ti me haven't you
(0.6) ye':ah
(0.7) .hhh how come El- Elly E_lly \{η\} (. \{η\} 'Simon in'terupted on that- (.)
that -(0.7) .hh thing (.) mi cрохпhone (0.6) if erm (0.5) if it was me you
re'corded
(0.7) well I've 'got thеm as well because the 'sound's (0.7) 'all around i sn't it (.)
you can't 'block out the sound (1.0) the 'microphone just 'picks up аll the
'noise (1.0) that it c'an (1.5) in а ro one (.) so 'all the 'noise that's going on in
a 'room [ the microphone picks up]
whabout Tin-(.) Tina-(.) ] does Ti_na Wilkins in а 'group as well
(0.8) no (. 'she was on her o:wn (. 'with Sha_ron
(0.7) so wh w would it(.) 'ould it be th en (.) if you re'corded Tina [Wilkins]
ye::: s ]
(1.1) wh- what would hа'pen if =
what would it bе (.) wou- w- w- would it
just be а f-(.) а 'full gro-up
(1.2) no(. it would be (. just the 'sound of'whoever was 'talking at the ti me
(3.2) 'Mark 'Watson
(1.2)ye::ah
'tina 'Timpson (.) would it 'be
(0.7) ye::ah
(1.5) a 'group:(0.7) what \{ə\} me::
(0.9)well- (0.6) if you're 'talking no w it re'cords yo u
(5.3) 'my 'voice is above everbody еlse's
(0.7) well 'you're the only one tаlking а ren't you
(.) Elly 'Elly's 'talking abo- (.) t- 'talking behi'nd it
(.) ye::ah (. you can he ar 'Elly as 'well
(2.8) E'lly
yе::s (3.2) yе::s 'Mary
I won't try to 'wind you up anymо:re(,) or 'torment you
(2.5) 'won't tаrment me ah 'that's all right (0.6) I ho:pe not Mary( 2.0) ye::ah
because (1.2) right ((( inaudible )
[ hope that 'Talk's ] going 'swimming nо w
WHА T
Talk (.) has 'just come 'back from 'swimming (.) [Talk Timpson]

Mā'ry not hā ving this ((1 syll)) (0.7)yè ah I'm going 'homethis Fri':d
till Sun'd'ay'

Mā'rina (.) k-( .) Cori:nne (0.8) I just said that Talk Timpson's come
back from swi'mming now Cori,nne (1.3) Cori,nne =
= ah Mā'ry =

M = ah Mā'ry =

were you 'talking to mène'

(. ) yes

ah ( .) I didn't hēar I'm busy

her name's not Talk ( .) her name's Ma'rina

'pardon what d' you sā'y

it's Ma'rina Talk

I ca-( .) I don't know what you're talking bout ( .) I'm busy you see

(0.6) con- ( .) continue'interviewing (1.1) E' lly ( .) t go_ o n (0.9) while I do

my work

E = E'LLY

yes Mā'ry =

her name's Ma'rina Talk her name isn't (. ) Talk Talk

(0.8) ri [::ght]

↑ [what ] do you cā'll her ↑ (1.4) ↑ 'what do you cā'll Ma'rina

'silly 'names like Talk Timpson {η} ( .) Singap.o:rel now {η} 'all sor ts

why do [you 'call 'er-

[and the 'Lords -]

(0.6) ↑ 'why do you call hér that ↑=

M = dicky

(1.2) ↑ 'why do [you call hér that ] ↑

[ah that's nō't nice ] é'h

(0.7) why, do you 'call [ill her 'that ]

[cos I do ]

(1.0) is it 'just yō'u who says that

(0.8)yes

(. ) why, do yOU [do that ]

M [mmmmm]mmmmm

M = making hand movements

(10.1) 'tell me all about your fā'mily then 'like you were 'telling me lā'st time

(0.6) cos you've got a BRO'ther hā'ven't 'you

( .) when did you come last ti:me
S (0.9) err 'you were just going to- I think it must have been on a wednesday
(.) because you were on your 'way to co'lege (1.7) and I just came and had
my dinner with you and Ali_cia (1.5) and 'Ludovic (.) d'you remember (1.3)

it was 'quite a 'long [ti me ago ]
[tuesday ]

(1.0) guess what
wha't
I've got (0.6) a m- (.) a 'mum and d- (.) I got a 'mum and dau d

S hhm'm

M me 'mum's name is Mrs 'Gracie Hansom (.) and er (1.0) me dad's name- (.)

my 'dad's 'name is Mr 'Gracie Hansom

S 'no your dau d's 'name isn't [{(0.9)}] 'what's your 'dad's [náme]

M [er ] [ no ] (.) Mr M-

Mi'chael Hans 0.8) Mrs -{ (0.6) } got a 'mum called Mrs Gracie 'Hansom

[ Mrs-]

M ([(0.8) ] and a 'dad called Mr

S [ 'yea' ]

M Mi'chael Hansom [(1.1) ] and a- (1.6) and a 'brother'called (1.1) Max well

[ hhm]

M 'Hansom and a 'sister-in-law 'called Ti' na Hansom

S (.) r- rjgh't (1.6) and your brother - your brother's 'got some chil|dren as well

cos [you -]

M [ NO ]

S (.) no' no . children

M (.) no 'children (.) they had

'three ms'iscarrriages [{(.)two in 'nineteen n- 'nineteen ( . ) ]

S [aah: that's what you were telling me ]

M 'ninety tw' o (0.7) they had 'two in nine- (.) 'miscarrriages in 'nineteen 'ninety
'two and 'one 'miscarrage in (.) 'nineteen 'ninety thrê e (0.9) mum says I got
some s - 'sad (0.8) when she 'came up- (.) to 'fetch me- (.) my twenty 'fifth

bir'thday in 'nineteen- (.) eigh- (.) 'nineteen 'ninety thrê e (.) she 'told 'me that

(.) Mar'y I got some 'sad nè ws to tel you (.) I'm a'fraid that Tina has had a

ms'iscarrage

S (1.0) t ox:he d:ar (2.1) 'that must have been sad

M (.) so - (.) but q ne 'day they will-(.) they'll have a ba by 'though

S yé:ah (.) and 'then you'll be an a unty wq n't you

M (.) yes (1.4) I've 'always 'wanted to 'be an a unty

S (3.5) 'what e lse (.) 'where do they li've
they 'live at 'White Ho llow (.)
Lancashire
aːːh (.) is it ni* ce there (.)
(yes)
do you 'go thè re and sè e them very often
(1.5) grandma said (. ) I've got a grà ndson who l - who 'lives at 'White Ho llow

(1.5) 'Grandma Ho lly
( who 's Grandma Ho ll’y)

(1.1) it's my 'grandma:

(0.7) mm hm (2.2) 'one of your grà ndmas

(.) 'yes

((background activity (12.6) ))

so you've got a grandma: as 'well

(0.6) yeah

(1.2) and does 'she 'live in 'Lancashire as wè l

(.) ( . ) Da veystone

(1.0) aːːh ( . ) is that- is that 'nice [thà re d’you-]

[near Spà rk ] ley

(0.9) d’ yo- d’you 'go and 'visit her thè re 'sometimes =

= 'sometimes 'yes

(0.9) and 'what d’you do when you 'go and 'visit her thè re

(0.7) 'all so rts

(1.0) 'what li ke

(1.7) what you loo- a llo oking at Corìn ne

(1.4) I'm 'looking at thà t' over 'thà re'

(5.7) what d’you like doing when you 'go and 'see [ your grà ndma]

(sometimes ( . ) ] 'some

of my rel atives (0.9) 'come when they were thè re (3.5) the last time that -(. )

we: were thè re (. ) Sylvie 'Mark (1.8) 'Andie (. ) 'Simon (1.8) Lesley and
Jà ne (0.8) ca- (1.6) 'came to grà ndma’s (1.0) [to see ]her

[ who- ]

‘who are all thè y (.) ‘who are all ’those pe ople

(2.7) (3 syllables) is (. ) my fi rst ‘cousin (. ) and er (0.8) ‘Andie ‘Simon (1.8)

‘Lesley and Jà ne are my (. ) ‘second cò usins

(3.5) do you li ke ‘them
yeah (.). hh they 'don't kno, w me you 'see (. ) because er we don't s,e e them

'very 'much

oh rjght (2.2) so- are they qlder than you

they're 'younger

q till of them

yes

and 'what d'you d'o: (.)*what d'you d'o (. ) d'you go to the p3rk [(.) ] or

[a-]
do you 'go for [waalks ] (. ) or

h hh (. ) ] 'NO

(2.5) 'what d'you d'o: (5.1) d'you 'go for a dri:ve

'younger

q:ll of them

yes

'the se (. ) because er we don't sqe them

and me 'mum and 'dad at Ren'ton

w- 'what's that

gwent to Ma'ureen's 'last ye,ar (. ) when we went to Ren'ton

mhm (3.4) and d'you 'go into to,wn (1.7) 'go an' sh- 'go shopping

we go to Kqth's 'sometimes (. ) and we go to to Ma'ureen's

= and me 'mum and 'dad at Ren'ton

Yeah 'sometimes (. ) and so - (. ) I do my wrir'ting 'sometimes

and (2 sylls) have a dri'nk an' that

h hm (3.4) and d'you 'go into to,wn (1.7) 'go an' sh- 'go shopping

we go to Kqth's 'sometimes (. ) and we go to to Ma'ureen's

you 'go to whère =

Yeah sometimes (. ) and so - (. ) I do my wrir'ting 'sometimes

and (2 sylls) have a dri'nk an' that

hm (3.4) and d'you 'go into to,wn (1.7) 'go an' sh- 'go shopping

we go to Kqth's 'sometimes (. ) and we go to to Ma'ureen's

you 'go to whère =

Yeah sometimes (. ) and so - (. ) I do my wrir'ting 'sometimes

and (2 sylls) have a dri'nk an' that

hm (3.4) and d'you 'go into to,wn (1.7) 'go an' sh- 'go shopping

we go to Kqth's 'sometimes (. ) and we go to to Ma'ureen's

you 'go to whère =

Yeah sometimes (. ) and so - (. ) I do my wrir'ting 'sometimes

and (2 sylls) have a dri'nk an' that

hm (3.4) and d'you 'go into to,wn (1.7) 'go an' sh- 'go shopping

we go to Kqth's 'sometimes (. ) and we go to to Ma'ureen's

you 'go to whère =
Appendix 5.2.
Mary
Transcription Two: 25.5.95

1  S:  what happens at tho:se the:n (. ) what will happen at the m
2  M:  we- well( ) you 'choose the e r (3.6) you 'choose the e v e (0.8) the eve nt (. ) that you
3  'want to go in (1.8) the eve- it depe- 'pending on what you're 'good enough( . ) but I
4  'want t -to 'learn how .hhh ( . ) to get better at 'Badminton so I can 'play with E lly
5  S:  (0.8) aâ:h ( . ) does Elly 'play 'badminton [ (2 syllables ) ]
6  M  [ 'yes she ] 'does
7  S  (1.2) is she go:od at it
8  M  ( . ) hhh yes but I've got to get a lot a got to ( . ) 'get a 'lot 'better (. ) a 'lot 'better .hhh
9  and 'last ni ght they 'went to the er 'speak up a d vocacy group .hhh and er (3.2) we
10  'signed ( . ) a 'birth day 'card( . ) f- for Elly ( . ) from the spe ak up .hhh 'advocacy
11  'speak up gro u;p .hhh and { a} ( . ) a- and { a} ( . ) Elly was (2.9) cutting her cake-
12  'cutting her ( . ) 'bIRTH day cake .hhh and we sang( . ) and we 'all 'sang 'happy
13  bi_rthday to 'Elly
14  S  ( . ) nô:n 'that's ' â:v ely ( . ) how â:ld was she
15  M  she was 'twenty 'nine (0.9) she'll be thî rty next yéar
16  S  she wi'll (0.6) is she â:lder than you
17  M  yes she is
18  S  (0.6) how [ â:ld are ] you =
19  M  [ two year- ] (. ) = .hhh two years old(-) she's 'two years older than
20  me( . ) 'I'm twenty 'six(. ) I'll be twenty sêven in â:september =
21  S  = aâ:h ri 'ght
22  (1.1) so ( . ) you had a bi_rthday pa rty the n
23  M  (1.2) .hhh we sa- (. ) we 'sang (. ) 'Elly 'took her 'birth day 'cake to the sp- ( . )
24  'advocacy spe ak up group for 'everybody to have
25  S  (1.2) ma- 'who 'made her bi_rthday 'cake for [ her]
26  M  [ âr ] ( . ) 'Julie went down to the (1.0)
27  'cake 'shop to o_rder it for her (. ) and 'Patsy ( . ) 'brought it up to the erm (. ) the dâ y
28  centre for her
29  S  (1.6) that's â:v ely that was kî nd of them wâ sn't it =
30  M  = 'yes
31  S  and was it a surprîse
32  M  it was a surprîse 'yes ( . ) hhh
33  (1.2) it was a- (. ) it was a 'very 'nice 'birth day 'cake
34  S  (0.6) what was it lj:ke
35  M  (1.2) I had a lo:ok at it ( . ) and it was pî nk and it was very 'nîce (. ) and Gladys
36  (1.1) wh gl- (. )gl- (. ) 'Gladys came 'down .hhh to the 'day centre she says to me
'what's 'that (0.7) she says to 'Elly wh- 'what's that is that -is that a (1.0) is that a
cäkë or (.) is that a pi- (.) is that- (.) cäke or piece o- or -or -is it a 'rabbit
(1.0)(hhhhhh) .hh 'why was it - 'why did she 'say that
just a 'joke
(.).why- (.) what was- (.) [why-]
[when] I was walking up with 'Katf Portman
(2.0) aah rjght 'why did she 'make a 'joke like thät
t 'why [was that ]
[ she was just] saying it
(1.7)what did the 'cake lóok like
hh it looked very 'niçce
(1.1) wh- 'what shá'pe was it
(1.1) it's like a hë:art 'shape (.) but she still got some lë ft for toni’ght
aa:h (1.3)
what [color ]
[en we-] en we 'had that (.) its 'pink (.) en we had 'that er (.) 'chocolate
gâteau for- (1.0) that we- (.) we 'bought with Clare- (1.0).hhh (.) 1 (.) last 'niçght
( .) with Katf Portman that we 'bought with 'Cla re 'Bentley the day .hhhh from
the Lö-Cost (.) the er the 'night be'(.)fore .hhhh the 'Elly's birthdäy (1.3) that we 'had
after 'tea last (.) we 'had it after 'tea last 'night
(0.9) 'chocolate gâteau
'yès
was it 'niçce
'yes (.) it was very 'niçce .hhhh I'd made s -(1.6) {av} 'yesterdäy (.) I 'made some er
(4.7) 'apple( .) fr- 'fruit' crumble with er 'Jàñé( .) then er (.) Mike'Losely
'hoovered the- the- the länding 'downstairs .hhhh I 'hoovered the 'hallway (1.2)
downstairs (.) I 'hoovered the 'stairs and 'hoovered the länding up stai rs .hhhh and
then er (.) then I 'hoovered (.)t he-he-' the 'lounge room and I p- 'dusted and
pídished( .) the 'lounge room .hhhh then I 'hoovered (.).th- (.) the 'dining room then
er (.) .hhhh then helped 'Jane 'Brown to er (.) to 'mow the back- (.)the 'bäck lâwn
with a lâwnmower ( .) at Fínewood 'yesterdäy
(1.2) you were re álly bûsy thë'n
( .)yes (.) a-and I'm going swìmming this 'afternoon (.) .hhhh with err (2.5) with
'Clare (.) 'Martin (2.1) with Clare 'Dorey (.) 'Martin
(3.8) 'where you gonna go swìmming
(1.1) and 'Linda 'Marks (1.8) 'Ned Càstlë (0.7)Dennis Blàck ( .) Ka'rina Goul d
(1.2) Darren Harris (3.4) D-.hhhh (2.4) 'Elly 'Gàrrick ( .) Mike LOWE and 'Jeremy
Càrkhill ( .) we're going to go 'swimming at the 'Dome in Dòchester
(.) òàach ( .) is that ( .) 'one of those poóls that's 'got ( .) slïdes [and ] 'things
[ 'yes ]( .)
'slides and 'things (0.9) I've been döwn 'down the 'little 'slid:de.hhh but but I don't
go 'on it don't go on (.) 'down it (.) 'now
(1.2) 'why no t
(0) because I'm a bit (.) 'frightened (2.3) .hhhh so er (.) I just 'have a 'swim(.) an-
and it's really nj:ce
(0) can you swim
(2.0) 'sometimes I don't want to 'go: b- (.) but I dö 'go
(0) 'why do,n't you 'want to 'go 'sometimes
(1.0) I just fêel like 'that
(2.0) why- why d'you fêel 'like you 'don't 'want to go swimming
sometimes
(0) I just dö sometimes
(0) 'don't you want to get wè t(2.9) ds- does it 'not ['feel]
[bec ] ause I 'want to 'do the 'same 'things as what 'Max Lo,wther and 'Pete Sânderson 'do(.) [and ] 'not what
[oo:sh]
E-Elly Garrick 'does
a:'h rj::ght =
= or that 'group
(0) why - (.) why -
(1.8) because I 'do
(1.6) you don't know why,
(0) no
(0.8) no:: (1.3) what do you ['like -]
(0) [or ] splâ-(.) 'splash each other (.) last time m-
(0) m-(.) m-(.) 'I 'splashed 'Neil and he 'splashed me bâc: (.) and 'Linda 'Marks 'did
(1.4) was that fûny or was it [nâsty]
(0) [it ] was just being 'funny =
(0.4) ye::ah (2.4) what
does 'everybody èlse do at the 'swimming 'pool(.) do they 'a[ll]
[.hh] just have a 'swim a'bo- (.) about (0.8) E-Elly 'Garrick (2.1) guess what (.) 'Elly 'Garrick ca-
came 'back to Fi' newwood once and she 'told (1.1) whoever was on that she- she-
that she'd 'done (1.0) 'thirty 'lengths (.) a'cross the 'swimming pô ol
and hâ d she
(0) 'yes
.SHHHH (.) 'thirty 'lengths (.) that's mî::les (1.5) it's a rã:ll'y 'long wà y ïsn't it
(1.5) 'yes
(3.9) is 'she a 'good 'swimmer thñn
she's a very good 'swimmer
(2.4)[who taught-]
[.hh they're ] 'thinking (.) th- th- th- they're thi`nking of- of- of en- of
ëntering (.) .hh some other pëople (2.9) .hhh for swi`mming (.) in the mini
olympics
(1.2) 'who li:ke
(1.4) Da- like 'Darren and people like 'Darren Hârris and er (.) 'Elly Ga'rrick
(1.0) mm'hm (.) and what- (.) because they're 'so 'good at swi`mming =
'yes
(2 syllables-)
[a- an- and 'Mich]ael säys 'not 'you Mary because you're 'not fâ st
enough yet (.)
a3h ri'ght (.) but you mjght be mrîghtn't you
'yes
wh- 'what are you gonna 'do in the mini olympics then
(1.9) l-I were 'thinking of doing ho'rose riding and er (.) 'running the '800 metres
this time (.)
can [ y - ]
['next] 'time
can you rûn 'fast then
I 'can run fast yes but (.) it will make my: (1.6) leôgs 'ache if I 'run the ( .) 2Q0
'metres
mm'hm
(2.5) and I'm 'thinking of 'training for 'badminton as 'well ( .) and 'table tênnis
(1.5) 'which- ( .) 'which- ( .) of thq se do you like =-
I'm getting a 'progressing at
bâdminton an ( .) s- so I can 'play with 'Elly E- Gârrick ( .) .hhh in the er(1.0) m-
mini ly- 'mini ly mpics
(1.0) is it ['Elly Gârr-]
[sO I can ] get goôd enough
is it 'Elly 'Garrick that you li`ve with
'yes =
yê ah ( .) y[eha ]
(and) 'Max Lô wther and 'Pete Sánderson =
yê ah (1.2) and 'Elly's
'really 'good at bâdminton
'yes( .) shsh- she 'goes every 'sunday njîght ( .) d' njîght t( .) to the e:ër ( .) the youth
club (1.0) for bâdminton ( .) for tráining for bâdminton ton for the: e:ër ( .) mini
olympics .hh and she also 'goes errm (2.6) she 'goes er (1.0) an I'm 'thinking of
doing 'dressage again ( .) for the e:ër ( .) mi- mini olympics
for the- ( .) on- ( .) on your ho:rst
hh 'yes but () 'Michael told 'Kevin last week () just before we went horse riding
() says () 'Kevin () if 'Mary becomes obsessive about dressage she won't do it
she 'won't be doing it

(1.5) mhm de'er () 'why () 'why did he say that

well-() because I do get obsessive about things sometimes

S do you know what 'that means

M (1.1) 'no

S (0.8)nó (1.0) do you kn-do you kn- 'why () d'you know 'why 'people say that

M because I do, s-get obsessive about things 'sometimes

S d'you know do you 'know what obsessed means 'though

M (1.4).hh obsessed 'means when you're (-) 'when you're absolutely 'full of things

S ye 'agh (0.6) ye 'agh (1.3) and you don't know 'why 'you get full of things

M 'no

S (.)nó (.) but 'is it cos you 'like doing them (.) a 'lot

M [yè]es () because I like doing them a lot

S () m'h

M I 'liked () dressage doing the dress - I 'did the dressage last time .hh (.) and I
came 'third with the 'bronze medal (.) and 'Darren 'Harris [ () ] 'came er (1.0) ca-

S [wow]

M 'came 'first with a gold cup gold cup .hh (.) cos 'Darren's 'dad (.) 'Darren
Harris's 'dad 'came to (-) .hh watch Darre- 'Darren Harris (1.0) ride in the
dressage (1.0) and er () m- () my 'mum and 'dad 'came to watch me (.) r-ride in
the 'dressage .hh (.) and they thought I was very good

S I bet that was-

M = I got an 'awkward horse called Chârles () who wouldn't trot so I
had to have a .hhh have a 'stick to make it trot [(0.8)] and I came 'third

S [mm ]

M that's brilliantly (.) were you proud

S in September 1994 last year [hhh().] and I was 'very proud of me (.) my parents

M [yéah ]

S were very 'proud of me .hh (.) so was 'Tina Hall and so was my er .hh relatives

and er (.) cousins and that

S w- were you proud of you

M yè 's be- because m- 'ma mom (.) 'saw 'Ellen and H- (.) Házel .hh (.) and she 'told
her .hh that I'd 'won a- () a- a- 'bronze me- a 'bronze medal an - a- a- (.) and er
(1.0) when I saw when I saw 'Ellen (.) last week .hh (2.7) the s- (.) she had (.)
er (-) er 'youngest daughter Házel with her s I- I said yes she 'had .hhh I says

S (0.8) she was very shy :: (.) she didn't know me

M (0.9) me 'cousin
aa"::h ri"ght (.) and she's got a 'daughter called Hazel
and 'they came to watch you at the dressage
'um and 'dad did yes
but 'Ellen and 'Hazel di" dn't
'no she just 'saw 'Ellen and she- (.) [told- (1.0) to ld ] 'Ellen
[ oh she tò ld 'Ellen ]
(1.3) that's brì liant (.) how long have you been 'riding horses
I been 'riding er (3.0) 'nineteen 'years (1.4) [altogether ] 'yes
brì liant (.) you must be 'really 'really gò od (.) well you mü st be 'good to have
'won that me dals
(2.0) why- (.) 'why is it if you've been 'riding for 'nineteen yà rs (.) 'why do you
(.) ge- get (.) 'good enough for mè dals
(1.1) .hh well no t everybody would but (.) if you 'do something for a l'ong ti 'me
(,) because you 've d- been doing it for a 'long ti 'me .hhh you 'usually get 'good at
it (1.8) because if you 've just 'started dò ing something you're not very 'good at it
to beg' in with æ re you =
= no
so the lôn ger you do something the 'better you gè t at [ it ]
so if you' ve been ridì ng for 'nineteen yà rs (.) you're- 'you must be very gò od
(2.4) 'yes
(2.9) and it 'proues that [you-
[I been ] 'riding since since I was at Hè athercroft
'where was that
(1.0) started ridì ng at Hè athercroft n- n- an then- an then I (.) started r- (.) 'riding
again at (.) Fo- (.) at Fô rest
(0.8) ri"ght (.) where's- wheres Heath- is it Hè athercroft
(1.0) Lò w'orten
(,) is that - (.) is 'that where you used to lì ve
(1.4) 'no but it's not fà r away
(1.1) it was stà bles near where you used to li' ve
(1.3) è yeahè
(4.8) can you remè mber the 'fì rst time you got on a hò rse
(1.0) no
no:(1.4) can you remè mber what it was li' ke when you 'fì rst 'started ri' ding
(2.3) I couldn't 'do (.) dò much (2.6) mum says I used to be 'sick before I 'got on
(,) 'got on a po nny
why::
(1.6) because I didn't like (0.6) because (. .) I didn't 'like the idea of getting onto the 
pony (. .) 
240 S (0.9) but you 'liked it when you got on 
241 M (.) y-yes but I 'like it now 
242 S (. .) mnn hm (1.0) how 'often do you go ri ding 
243 M I go (. .) every fri'doo (1.2) with 'Kevin ( . .) I 'used to go- go with Mi- ( . .) Mi' chael to 
'Shelby but I 'go with er ( . .) 'Kevin (1.0) g- ( . .) 'Michael to 'Shelby for horse riding 
. .hhh but I 'go with er ( . .)'Kevin (1.9) na- ( . .) 'every 'friday with er (1.9) . .hhh 'horse 
riding to 'Shelby 
246 S mnn hm 
248 M (2.3) . .hhhh 
249 S 'what's your 'favourite 'horse ca'led 
250 M (3.7) . .hhhh 
251 S have you go't a 'favourite 'horse 
252 M (2.4) . .hhhh Beth(-) Beth- 'Bethan (-) but er (-) they're 'trying to (1.8) . .hh 'many 
ti -(0.6) they've got 'Bethan to re'tirement as befô're(-) put her out in the field but 
she just got ch- (-) 'chucked 'back in the 'box aga'n and er (-) they've been trying 
that for 'five years . .hhh 
255 S they've been 'trying what for 'five 'years 
257 M trying to let 'Bethan re'tire [b- (-) ]but 'they er ke- (-) kept (0.7) 'putting her 
258 S [oh ri'ght ] 
259 M 'back into the: er:m ( . .) the pe- people who 'work at the stàbles . .hhh have been 
'trying to put her back into the er . .hhh 'h orse box ( . .) a'gain 
260 S (1.1) ò:sh ( . .) why 
261 M (1.3) I ro- I- I- 'rode on that 'horse called Dizzy sh - . .hhh ( . .) very 'nice to 'ride 
when I was riding 'outside once an- an- I'd to ri::de on her (1.1) . .hhh a 'few 'times 
to get us ed to her an I was very 'nervous of ri ding her you see 
264 S mnn hm 
266 M . .hhh which was one 'first time I've ra'iden her ( . .) because er (2.7) . .hhh 'Lee says 
(. .) she can 'try 'riding Dizzy this week and if it wô rks ( . .) we'll let her 'ride (. .) 
267 'Dizzy inst -inst instead of . .hhh (. .) Bê than 
269 S mnn hm 
270 M and let 'Bethan re'tire
Appendix 5.3.

Mary

Transcription Three (WAIS-R): 31.8.95

M: Mary
S: Researcher
C: Careworker

1 S  right (.) shall we 'start (.) with some quëstions then
2 M  (.) yes
3 S  (.) okay (.) what are the 'colours of the 'British flag (4.2) d'you 'know
4  what [they are ]
5 M  ['red  ] 'blue and 'white
6 S  (1.3) 'that's riːght (.) 'very good (4.6) 'what is the 'shape of a bàll
7 M  (1.2) a 'round shape
8 S  (0.7) 'that's riːght  (2.7) 'very good' (2.4) how many mònths (.) are there in a
9  'year
10 M  (1.0) there are 'twelve months in a year
11 S  (2.7) I've got to 'write down what you say you see (3.6) umː: 'what's a thermômeter
12 M  (2.2) dunno
13 S 'don't know ' (.)  okay  whisper
14  (1.4) how many wëeks (.) are there in a 'year
15 M  (3.5) are there one 'hundred and 'èighty
16 S  (4.2) okây
17  (2.4) ' just put this book over hè:re (1.4) riːght* (1.6) can you 'name a prime
18  miː nîstër of 'GREAT 'Britain during the 'second 'wôrld 'wàr
19 M  (6.9) was it John Astley
20 S  (3.6) 'good answer (2.4) riːght (1.3) okay (.) 'who wrote Hårlemt
21 M  (2.6) I don't 'know
22 S  (1.4) ' riːght (2.1) ând (.) 'what's the 'capital of Ì taly
23 M  (2.4) 'Rome
24 S  very good (3.4) ' excellent ' (1.6) d'you know 'who was Louis- Louis A:\::rmstrong
25 M  (0.9) he was a singer
26 S  (2.1) very good (1.2) 'excellent* (2.2) eːr (.) d'you know 'who was 'Amy Jònsson
27 M  (1.2) nô
28 S  (4.2) 'where does the sun 'rise
29 M  (1.0) 'in the morning
30 S  (2.0) 'okay* (3.4) can you 'name (.) four prime 'ministers of 'Great 'Britain (.)
31  since1950
32 M  (3.4) eːr (2.0) Win (.) 'Winston Chyrchill (2.6) hhh [( 5.1 ) ] 'Harold Wjlsôn
33 S  [yëah' ]
34 S  (0.6) very good
Edward Heath (2.4), Howard MacMillan (2.1), Margaret Thatcher (2.1), and John Major

That's absolutely brilliant (2.0) that's really good, well done Mary.

Emm (.) do you know (.) on what continent is Brazil (.)

That's the far east.

Who was Emmeline Pankhurst (2.0)? Who was she (2.0)? Do you know who she was (2.0)?

A comedian.

Right (3.2) okay (0.8) in what direction would you travel (.) if you went from Southampton to Gibraltar.

You'd have to travel (.) pointing towards (.) the Channel Tunnel (.) towards Folkestone and that way (.)

You'd have to take your car to drive over to France to (.)

Very good (1.6) now (0.9) why are dark clothes warmer than light coloured clothes (.)

Because they're thicker.

Right (6.2) okay (.) who was Martin Luther King (3.2)?

I don't know.

On what continent is the Sahara Desert (1.5) far east.

What's the main theme (.) of the Book of Genesis (6.7) I don't know.

Whose name (.) is usually associated (.) with the Theory of Relativity (2.9) John Major.

(.) Right (1.8) that's lovely (1.8) right that's all these questions you did very well (1.8) that was very good Mary (4.7) right (.) put those over there (.)

((someone comes in))

Hello (.) hello (.) hello Mary (1.5) I'm with Sushkie (3.0) I'm with Sushkie.

Sushkie (2.0) is a comedian.

Name (.) who's name (.) is usually associated (.) with the Theory of Relativity (.)

John Major.

(.) Right (1.8) that's lovely (1.8) right that's all these questions you did very well (1.8) that was very good Mary (4.7) right (.) put those over there (.)

((someone comes in))

Hello (.) hello Kate.

Sushkie is quite nice actually (.) it sounds Russian doesn't it (2.0)
wasn't too hard was it

no

((pause while others leave))

okay no:z:w I'm going to 'show you some pi`ctures(.) in this [book] (.)

[ yes ]

okay now in these pi`ctures some important part is going to be mi`ssing (1.1)

okay

now I want you to 'look at each pi`cture(.) and tell me what's mi`ssing (0.8) okay

now this is the fi`rst 'one (0.9) now can you 'tell me what's 'missing in this pi`cture

(5.0) is there a 'door - (.) there's a door with no handle on

that's right ye's (.) okay (1.3) so (0.8) right 'nextr one (1.1)' can you do the next

'one

if I went home for 'good w-w-w-w would ge: (.) would- would these er (1.2) sh-

(0.6) would my 'voice still be on these t apexes

ôh yes (0.8)'yes "

why would it

(1.4) because (.) the tape (.) records it and it 'keeps it for as 'long as the tape's alive

(0.9)'yéah '

(1.3) ea:sh

( .) right

(2.9) they're 'playing e:x (.) a 'game of tenni ( .)

(1.5) e:x(2.1) that 'man hasn't got a t- (1.9) a 'tennis ràcquet

( .) yéah (.) very good (4.5) kày the nèxt 'one ( .) do you want me to ( .) shall I h ( .)

you (.) co: it's a bit hàrd to (.) 'turn those ove:r (1.9) you don't want to 'miss any out

( .) okay ( .) shall we see what that one is

(1.2) a 'frog

(1.5) yeah (.) can you show me whère (2.5) 'show me =

(1.2) a 'frog

there with no 'a:x:rm

( .) vèry good 'yes(.) 'brilliant

(1.2) with no 'left 'a:xrm

'that's right (0.8) is that- (1.1) that's it

(6.0) what do you call that 'game

(1.2) e:x:x ( .) cards

(0.9) a 'game of 'ca:x:rd:

( .) so::: ( .) 'what's missing can you show me whèré (1.6) you show me whèré it's

'missing 'there

(1.5) it's 'one ( .) 'two ( .) 'three ( .) 'four ( .) 'five ( .) 'six ( .) 'seven ( .) 'eight ( .) there
should be 'nine (.) there's only eight (1.2)[th ]

[ri`ght (.) [okay ]

[there's] ei`ght when there's

supposed to be ni`ne

can you 'show me 'where it's mi`ssing from

(2.7) there

thât's ri`ght (4.7) okây (.) 'ooh (.) shall I come and help you with that ' (4.7) okây (.) [okay ]

(2.8) there's a càrd there

yep

(3.0) 'without a 'steering wheel

(5.9) there's a jug- (.) a 'jug there with e:x (.) with water =

(0.8) 'nuth but the: er (5.8) can't 'think what's mi`ssing

(6.4) nô (.) 'try the next one (4.0) can you mânäge

(3.2) fi`ddly isn't it

you've met m-my 'mum and 'dad ân't yer

'no I haven't 'met them

(1.2) and e:x (1.4) there's 'glasses the::re

[m[m]

[b ]ut erm (.) an- (.) an the ânose bit is 'mi`ssing =

(2.3) thâs pli`ers 'there

hhnh

(1.0) and the: e:x (4.1) 'something is mi`ssing

(0.8) d'you 'know what's mi`ssing

(8.5) tõol bit

(0.9) which - (.) 'where is it can you 'show me 'where (2.0) ri`ght okây (0.9) 'try the

next one

er (.) there's a-(.) there's a rôwing boat there

hhnhhm

(14.2) there's 'something mi`ssing

hhnhhm

(1.4) can't 'think 'what it 'is:

okây 'try the next one (0.6) these are 'quite hâr`d (1.5) they're very 'hârd actually

there's a ma - (.) there's a lâdy there 'walking with a dog

hhnhhm

(6.5) and there's something mi`ssing

hhnhhm (.) oh 'careful you don't miss one oút thât's it'

(4.3) there's a 'lady 'there with e:r (1.2) in the mîrror =

= hhnhhm
(0.7) and there's someth- (2.0) and she's got her ri`ght 'arm 'missing
(0.6) ri`ght (3.2) you've mi`ssed one(.) ha`ng on`
(4.0) there you go`
(1.8) there's a t - (.) tɔad there (0.9) with (1.2) with the e:ɔ (.) th- (.) with the lɛft
'thing 'missing

S  hhmmhm

M (4.1) a guitâːr (1.2) a- a viəlın there =

S  = hhmmhm

M (2.0) with something mi`ssing (3.1) with the thıːng that goes over
it that's mi ssing =

S  = ri`ght

(3.1) 'that's ri`ght yeah*

(1.8) eːɔ (.) the 'man's walking thırēr e (1.2) the 'tree's thırere (5.3) there's something
'missing I 'can't see 'what:
t

S  (0.7) * okã:ry (0.9) the next one (.) oh ha`ng on we've mi`ssed one (1.7) there you
go: *

M (1.4) there's a 'watch there that 'ticks

S  hhmmhm

M (5.7) and 'that is mi ssing

S  (.) show me where

M (0.9) that 'thing that - (0.7) walks into thırēr e is 'missing

S  bri`lliant (0.7) well do`ne (3.1)° think that's (.) okāy jsn't it (.) yeräh (.) yeräh (.)
that's okã:ry*

M there's a lēaf thırēr e

S  hhmmhm

M (13.3) and there's something missing thırere

S  (0.7) okāy

M (5.8) there's a 'man thıːrere

S  hhmmhm =

M = with a 'shoe 'missing

S  (0.8) aːssh

M (7.5) .hhr there's a 'horse 'there w- (.) wi - (.) with 'missing stı´rrups

S  very good (8.3)'that's it*

M (2.9) there's a 'lady there with er (3.0) with her èye 'missing

S  (0.9) can you show me whıːrere(2.6) ri`ght (5.6)° that's it 'that's all ri`ght (.) 'that's
the 'last òne`

M (0.9) there's a 'house (0.6) there with er (2.5) with a wi`ndow missing

S  (0.7) hhmmhm (.) okāy (.) show me whıːrere

M (1.3) a- (.) a- (.) at the other siːde

S  rıːght (.) that's lovelı́ (0.9) bri`lliant (.) thank you Mary (.) that was 'absolutely
'excellent (4.1) that wasn't hāːrd was it
(. ) can I tell you about my holiday now

tell me about your holiday
I went (. ) last week (. ) we went to Mi' stycrag an- (. ) an- (. ) an- we ad- an we ad a cup of cQ::ke (. )
an - (. ) an I 'bought (. ) some 'postcards an I 'wrote them to (. ) mum and dau(. )
Finewood A venue: (. ) 'Andrea JQines (. ) Grandma Hølly (. ) and Tina- an-
(.) an- Mi' chael and I posted them (. ) but I 'run out - (. ) I 'run short of e:.:r (. ) stamps
(.) so Darleen had to give me some stamps (. ) an I po-.hh (. ) gi - (. ) 'gimme a
stampil and I posted it
that's brillian= = and then e:.r (1.7) we went - (0.8) we sa- we sat outside the pub at
'Mistycrag (0.7) an I- an I had a glass a lemonade (. ) [ but e:.r ] (1.8) .hh
'Jane says
[ that's brillian=]
to: to 'Max Løwther (. ) .hhh you 've had your 'tablets haven't you Ma:x (. ) an I
said I- (. ) I 've ad my 'tablets and she just ignQ::red me and Darleen said to me .hhh
'yes you 've ad your 'tablets 'Mary (0.7) so I: (1.6) she said to me: (. ) Mary (. ) shút
up (. ) so I: er (1.7) .hhhh (. ) so I 'said to er (. ) no I won't shút up so she took me
'straight back to the co:ach .hhh and then e:.r (5.0) a-.(. ) an I 'pushed er (1.1) an I
'pushed 'Jane into - onto the roa:.d (. ) an I 'pushed two other 'ladies onto the 'road as
'well (. ) .hhh an I go er- (. ) Jane said to me (2.6) Mary (. ) shút up (. ) nów (. ) 'just
shút up (. ) .hhh so e:.r (6.6) on a we- (. ) on a wèndnes (. ) we er (1.8) .hh we
'went down to the beach
oh qhat w[as nice]
[ and Dar] 'leen an 'Jane took a photograph of 'us 'æll .hhh 'paddling in the
sè:a
ave you 'seen the photograph
no it's 'not come out - (. ) 'not been (. ) 'not come out 'yet
that's 'good though
an- o- (. ) on thù:.rsday (. ) we e:.r (2.1).hhh we we- (. ) we 'went (. ) to Rosy 'Top on
the 'co:ach (. ) .hh and e:.r (2.0) .hh and I 'ad another 'do: (. ) and I e:.r (. ) and I
'thumped 'Annie 'West so I told .hhh 'Jane and Dar'leen I just 'thumped 'Annie
'West .hhh so er Dar'leen sat 'next to 'me and er (2.1) 'Annie (. ) sat next to 'Jane
(.) and tha- those two chinese gi .:rsls [(0.6) ]
[ mmhm ]
were up- (0.7) were 'sat behind us 'laughing at us (. ) and they were trying
t- t -(0.7) to en joy the holiday and sa- an- 'Annie just 'did as well (. ) an they 'sat
behind us 'laughing at 'us because o what I was doing .hhh and so (. ) Dar'leen and
'Jane just grabbed hold o me [(1.4) ]
[ 'mmh ']
I started 'screaming 'shouting and 'swearing sh- 'showing everybody 'else up on the 
bus.hhh and I er (.) grabbed 'hold of Max 'Lowther's coat (.) but they just 'stopped 
me from doing it. hhh and then e:x (3.5) and then e:x (5.8) I showed everybody-
up on the bus (.) and 'Jane said to me (.) don't you 'realise 'Mary that you 
have 'come from a satellite house .hhh (0.9) that you are 'more capable (.) than the 
others (.) and you have 'come from a satellite house and you are 'showing yourself 
up .hhh out of Forest House autistic community (.) us and everybody 'else up 
as well .hhh now I think when you get off this bus (.) 'I think you ought to 
apologise to everybody who was on this bus .hhh so I said to them (.) that- (.) I 
said to er (.) I- 'I'm sorry for my beha- (.) a'pologize to them said 'I'm sorry for my 
behaviour (0.9) and she said to me (.) thas- (.) thas said to me that 's all 'ri 'ght (.) 
and then on e:x (3.5) on fri day (1.1) wer- (.) o-o-o- on thu- on thu:rsday (1.5) I 
wore my tèe: shirt an not- (0.7) I wore my shorts and e:x (0.8) and it was raining (.) 
we- we had one (.) one 'rainy day .hhh and then er (.) we went to the café (2.3) I 
told Jane .hhh that my tee: shirt was 'wet and she said to me (.) 'shut up 
(3.4) shall we 'do some more of thi 's (.) and then (.) after we've done this when 
you can tell me a bit more about your 'holiday |

[an then] (.) an then a- an th- (.) then on 

fri:day .hhh I e:x (1.1) w-w-we went (.) b- back home again o- on the bus (.) but I 
'showed myself up again .hhh I thumped er (.) Annie 'West (.) an when we got to 
Kingsford (.) when- (.) we had a 'look round 'Marks and 'Spencers in Kingsford .hhh (.) an 'Jane (.) just said to me (.) 'look Mary (.) just (.) 'shut your big mouth 
will you (.) so I sta- .hhh the 'lady asked me 'questions in the shop (1.2) .hh an I 
'said to me er (.) an I started swearing (.) 'screaming 'shouting and 'swearing in th-
in the 'ladies' toilets .hhh (0.6) an 'Jane said (.) to me Mary it's a 'good job (.) that 
that 'lady hasn't fet - 'fetched that manager (.) manager after 'you: (.) hhh e so-
when- (.) when we got- (1.3) so- (.) we- (.) we caught a 'bus (.) hhh there- f- (.) the 
'coach back from 'Kingsford to er Shèldon .hhh when it got to 'Sheldon I was stil' ll 
'playing up .hhh (.) and er (1.4) went into the café .hhh and 'Jane said to me (.) 'look 
Mary (.) just (.) 'shut up will you (.) and then on er (0.7) then we 'went to the pub 
(1.2) and then she 'asked the- the lady i- (.) if erm (2.5) if she could 'phone e:x (.) 
(1.9) Ji'll up an she said er (.) says I 'phoned Jill 'and she's going to send an escort 
to s(.-) from Forest House to come and pick- 'pick us up .hhh so er .hhh (1.3) an 
then (.) I was playing up on the 'steps outside an (.-) 'Jane and Dar'leen (.) 
restrained me on to the floor (.) down onto the floor .hhh an I said 'how are we 
going to get back to Forrest I says (.) anybody coming to 'pick us up says 'no: .hhh 
we're going to have to 'walk- (0.8) walk 'back to: er (.) to Forest with our 
suitcases (.) in our hands .hhh (.) in our 'hands she says- says you should have 
thought about that when e:x (.) hhh when you was playing up on the- on the 'coach 
(.) that we just been on .hhh I says to me: er (0.7) I asked - (.) Darleen and Jane 
how- 'how I'm going to get 'my tablets then sh says not- .hhh you're going to t- (.)
t-(.) to do to have to do without your 'tablets (.) so er (.) I played 'screaming and
shouting o- on the on the steps .hhh and er (1.9) an-(.) and Jerry had (.) to 'drive
'all that way up on (.) on the M sixteen (.) from Forrest .hhh (.) way down to
'Sheldon on the 'M51 west (1.0) he had to drive 'all that way had to drive 'all the
way back from Sheldon (.) down to Forrest as well .hhh asked Jerry can I tell you
bo- bout my holiday 'please an he said to me .hhh no you 'can't .hhh 'sit in the
back (0.8) he says 'sit in the back of the 'bus now (.) I am 'not interested .hhh so-
so er (.) an th 'Sea G- Gull Hotel (.) was nize (.) it got .hhh (.) some 'prime 'time
television 'on i-in ou- in our bedrooms (.) and it got (.) 'Hotel 'radio two s- an 'two
'satellite channels as 'well .hhh and er (2.1)and it got e'lectric- (0.9) er - (.) kettles
(.) an electric kettle (.) in our bedrooms (.) w - (.) that - (.) bedrooms (.) .hhh
where we could e:x 'make c- cups of teas or cups of cÖffees
APPENDIX SIX

Appendix 6.1.

Tom

Transcription One: 24.6.96

so 'what did you do with your 'dad this 'weekend did you (. ) go anywhere
(1.0) I 'don't think we did (. ) part from the pub for a meal
( ) ri'ght (. ) what did you have to eat
( .)'can't remember'*
↑ 'can't you remember↑
sirloin stēak' I thi 'nk'
(h) that sounds 'nice
↑ spose it is'
(0.6) 'what's your dad like 'Tom
(1.1)' he has the 'same thing ((1 syllable)) something else'
(1.9) is he nice (. ) your dad
(0.6)' spose he is'
(1.0) do you see him every 'weekend
(0.9) every 'weekend
(2.5) have you ↑ got any 'brothers and sis'ters 'Tom ↑
one 'called Nigel (1.0) and one 'called Hannah (. ) but they live 'far away now
(0.8) oh ri'ght (0.8) how 'old are they then
(0.9) think Nigel's about thirty 'four (1.3) and I'm (1.8) thirty three
(3.1) and 'what about Hannah
(1.9) older than that' (2 syllables)*
( .) is 'she the 'oldest (. ) then =
( ) = 'born in 'nineteen 'fifty seven Hannah
oh ri'ght (1.0) so - (. ) she must be: (1.2) thirty ni 'ne
(0.8)' probably'
(1.0)yēah (. ) thirty ni 'ne
in that ye-ar (. ) sputnik 'went up
(1.2) did i 't =
='yeah'*
(1.6) wh- (. ) who-se (. ) who did the sputnik be'long to
( ) soviets
(0.9) oh ri'ght (0.6) [ what ha- ]
[ 'it's a ] sattellite'
what happened to it
( .) it's 'launched into space (. )' it was a sattellite'
is it still up 'there
(0.8)' doubt it now'

whisper
(1.4) what happens to sput- (. ) to 'satellites (. ) do th[ey- ]

I don't really know

really *

(1.0) they 'drop(.) to éarth

{ puhbli}

ye'::ah (2.7) 'so (. ) have you been 'reading any bōoks 'lately Tom

'no(.) I don't think so

(2.7) could you 'tell me about your (. ) Nòrway trip again 'd'you think

(1.0)' .hhh if you want *

(1.1) † can you tell me about Nòrway again †

(1.1) they have a lot of glaciers (. ) 'there

comparatively loud

(1.9) did you † see any 'glaciers † =

= yes (. ) glaciers *

† what do they look like †

.hhhh 'big 'frozen rīver (. ) 'like things

(. ) † wō::w † (1.5) are they (. ) transparent or are they white

yeah (. ) so gq on about the 'glaciers (. ) 'what are the glaciers like

(0.6) very frozen (1.5) 'solid lumps of ice

(2.3) can you walk on them

(1.5) think so *

(2.0) do they look amazing

.hhhh 'bet they did'

(1.8) † tell me some mōre (. ) what else did you do in 'Norway

(1.0) 'walked around r - (. ) on the bōart there were some 'people who were a bit

young for cigarettes they managed to persyad[e Donald Hāmpton to get some

cigarettes for them

(dì' d the(hhh)y (hh)

yeah

(0.7) and did he 'go and get some [for them ]

[yeah ] (. ) don't know hōw though (1.2) they

wouldn't stop hassling him but in other respects they were quite 'nice

(2.4) is- 'who:’s Donald Hāmpton (.) is he here

(0.9) member of staff

(1.2) and 'he 'went and got them some cigarettes

'I think so 'yeah (. ) yeah ’

(2.1) and 'then did they smoke them

(1.3) 'prob a sumably yeah ’

(4.5) and what else (. ) tell me (. ) about (. ) where you stayed
(2.0) aaːh we 'stayed in a (1.5) chalet thing near the 'sea: (1.1) had a motor boat which we didn’t 'uːse (0.8) which was hired if we’d have been 'able to use it I wouldn’t have minded 'using it (1.2) and I 'saw a seal in the 'water

(0.6) were you the 'only one who saw it 'then =

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

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(1.8) t'(inaudible))'*

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(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*

(2.3) na and 'nobody believed that you’d seen it

(0.6)'no'

(1.8) t'(inaudible))'*
week'end then 'Tom

(5.5) 'can't remember''

(1.7) forgott'en

(0.9)'probably'

(.) it were 'quite a 'nice weekend actually (1.1) quite 'nice and sunny (5.3)who else

'lives 'here then 'Tom (.) 'tell me 'all about 'all these 'other people and what they're

'like (4.8) what's 'Annie like

(1.7) 'all right at times

(4.4) how 'long have you been 'here

(2.6)'many 'years now''

(0.8) how 'many

(1.3)'don't know exactly 'how 'many ''

(2.4) 'where did you 'live before 'Tom

(1.3) place called Turnpike 'Lane (0.9) 'Leeds '19' area''

(0.6) off 'Morley Road (.) 'heard of the area

(0.8) I don't know that 'area I'm 'not 'from 'Leeds (1.4) 'what's it 'like (.)

'top there 'then (2.0) is it countryside (0.7) is 'Leeds '19 it'll be a way out 'won't it

(0.9) 'they're getting rid of what 'countryside there 'once was there ''

by building 'on it 'now''

(.) 'oh dear' (1.7) was it 'countryside when you 'lived 'there

(,) 'mmmm'

(3.7) and is 'that where you went to school (3.3) do you remem'ber (.) 'much about

(,) going 'to school

(0.6)'yes I do '..

(0.7) 'what was it 'like (.) did you 'like it

I couldn't write very well so didn't (0.7) do- (.) d- (.) 'achieve much''

(1.1) that's a 'shame

(0.9) I could 'read better

(1.8) did you 'find it 'difficult to- (.) to 'make the pen 'do

' 'what you wanted it to[ 'do' ]

'I yeah ''

(3.9) they 'did about the hi' story of the 'eighteenth 'century but 'I don't 'see any

point in 'learning about that do you

(0.7) why not

(0.6) well it's gone past 'now 'hasn't it''

(1.4) w- (.) weren't you 'interested in it

'I was i 'interested in it 'but it doesn't (.) have any 'purpose ' the 'whole idea (.)

you's to have an interest the i'dea must be 'surely to (1.3) ex'plain how the 'past fits

the present (.) that's the whole idea (.) it's not just to (.) do a 'solid 'thing about
dates and (1.1) people (. . .) it's about how to explain how the past (0.7) 'makes the present (. . .) 'surely that's the [idea]'

S [mhm]
T ei-( . . .) either 'that (. . .) unless it does 'that (. . .) 'defeats the object doesn't it
S (. . .) I guess ye::ah (1.5) bu- (. . .) I 'mean (. . .) 'people (. . .) 'might (. . .) just be 'interested about the 'past' (. . .) just to see 'how it all fits in (. . .) err (. . .) today

T (how) does it though

S (2.6) I don't know cos I haven't studied these things]
T (. . .) defeats the object (. . .) doesn't it =
S = ye::ah (1.1) I 'mean it's quite 'nice to 'know (. . .)
T I mean (1.0) say if you 'knew =~
S = JUST KNOWING 'KNOWLEDGE as an 'end
T in itself isn't a 'purpose in it self is it'
S (1.2) it can be for 'some people 'though (. . .) some 'people just like to know 'things don't they
T (2.5) it's like 'reading for 'reading' s sake isn't - (. . .) an unless you 'take an 'interest in books

S mhm
T (. . .) mean you'll not 'tend to read just a bit in 'learning to read is there
S (0.7) no (0.6) no I 'guess not (0.9) except it's very 'useful (0.8) ne- (. . .) 'being (. . .) 'able to 'read in- 'in our society (. . .) isn't it (1.3) be a bit difficult cos you wouldn't be able to 'read signs or (1.3) or (0.9) bills or anything would you (7.2) ! were you any good at maths ! (1.8) no: (. . .) what was your favourite 'subject then

S mhm
T (1.8) *don't really 'kno::w*
S (2.5) 'not weaving
T (.) 'didn't 'have weaving at school'
S (0.7) gh
T (0.9) 'I didn't weave'

S (0.7) di 'dn't you
T (0.9) *no* (0.9) nobody 'did (2.5) but 'say (. . .) is just (. . .) 'LEARNING something for the 'sheer hell of learning like (. . .) one 'sense would be all right d- 'even though it's
i 'interesting but (1.2) in geography have to tell about 'which 'countries have rainforests 'I mean the 'whole (. . .) menagerie of 'countries that had 'them' (0.8) . hh
though the trouble is (0.9) at the 'same 'time as I 'm doing it the 'very 'second the
* 'very 'instant it's happening it's all going

S (.) mhm
T (0.9) where we 'once 'had within a (. . .) 'generation you had quite a (. . .) 'sizeable

S (.) mhm =
= within a generation (0.8) it's in 'difficulty of not having

any at all =

= mmhm

and 'soon it'll've gone into history books as an 'extinct thi`ng where once (1.2) I mean if they 'don't 'watch out they 'reckon sci`entists (0.8) mankind'll've e- (0.9) prez`ied over the (.) biggest (0.7) disappearance of 'living thi`ngs since the disa`pearance of the di`nosaurus (.) about 'fifty 'million years ago or something (0.7) if they don't (.) 'slow things down and 'stop thi`ngs (.) the way they're 'going on (2.0) but with conservation there's 'no point 'one 'country trying to con`serve (0.9) un'less (.) an'other 'country con`serves as [well ] (0.8)

[ye`ah] (.)

abso [olutely]

[ has to ] be a 'conc`certed (0.9) has to be a conc`certed world ef`fort

(.) [un ]less it's

[yes]

poin`less =

= yèa:h (1.3) y[es - ]

T [no ] point 'one trying to be good

S (1.5) when the 'others aren't

T (0.8) it's like the united nations is 'finding it can only 'do as much as 'whatever the members want it to do =

= mmhm

T (1.0) un'less 'everybody helps it do its 'thing it won't suc'ceed anyway it could be Bosnia: the Congo: or:

[ (.) ] anyway (.) it 'has (.), all these or in the 'middle e`ast (.) fast

[mìhm]

what 'makes its suc'ceed is the- (.) the wi`llingness to people to 'back it to help it to 'do what it 'wants them to 'do=

= yèa:h =

= cos 'anything they try to do is just 'vetoed by the USA and the USSR

(1.6)'mmhm‘ =

= un'less it (3.1) it's like 'la:w (.) obedience (.) there's no point passing new 'laws to disobey if 'people can't 'obey the 'laws they got already =

= mmhm (1.6) what about if they have a bad 'law 'though (.) th- (.)

that's sìlly =

= well that's a sìlly (.) to government to make itself deliberately

unp`pular=

= mmhm

(,) but (3.4) it's like in 'history in (.) th-(.) 'solve problems like a 'crime without
clues you don't know where to beg in

(3.8) and the 'best dis'guise isn't to be the same (.). something (.). to be 'different

something to be the same (.). something to be to

recognise [(.) that 'per]son (.). for being different

[mmhm ]

(.). hh you'd 'recognise them for being (.). di 'fferent 'sometimes =

= mmhm =

= .hh

you'd 'stand out a 'sore thumb an (.). 'same (8.5) and it doesn't a::lways repeat

itself 'history (.). cos some things have 'happened in 'history what have never

happened before =

[mmhm]

(.). it does (.). re 'peat itself in 'some things (.). but 'some things were (.). completely

unique to that moment in 'time what had 'never 'ever happened in the 'whole 'history

of the 'world and would [ 'nev ] er .hhh gonna happen before (.). like 'men in the fast

[mmh]

moon (.). it'd never 'happened before (.). be] fore [. since .hhh and it didn't re'peat

[yeah ]

itself then cos that was a u'nique thing what 'never happened befo:re .hhh an 'never

'happened in the past and wasn't even gonna be (.). 'foreseen to be 'able to be

happen cos 'everybody 'thought it was the very .hh (1.1) epitome of 'science 'fiction

(.) yea:sh =

= and wasn't going to be 'science f:act

(3.0) but it happened

(.). but it 'happened' (1.2) but just cos we (.). 'do a 'good thing in that respect

doesn't mean t'say we 'solved all those 'problems with (0.6) we may (.). 'good

at one 'aspect of things but in 'other re'spects (1.9) cos there's TYPE (3.4) 'man

solves the 'problem and 'makes another 'problem for himself at the

same tim[e (1.3) ] like (.). 'industry gives us all these (.).

[mmhm ']

'things like r:obots an every 'thing ' we have the 'problem of pollution

of 'indus[try to ]

[ye'a:h]

'à::lways 'had

(1.4)ye' a:sh (0.9) so we 'move on but in other 'ways we [move  back

[they've 'got] (.). 'nuclear

(1.1) p:ower (.). but we don't know 'where to 'put the 'nuclear

wa:ste(.[) no ]body wants it on

[m'mm]

their back (.). garden (.). don't 'think' (2.8) 'and em (2.4) and the 'world popu:lation
keeps growing [(0.7)] so as we're making the advance (. ) it's 'swallowed
[rmhm]

up by more people
(2.8) yeah (0.9) it's 'really difficult isn't it (1.3) what would 'you 'do if you were in
charge of it 'all
(1.2) well I 'think um (6.1)* I*

(0.9) ↑ haven't you got any ideas ↑ (. ) I 'bet you got some bri 'lliant i'ideas (8.0)

what's the 'most important thing for people d'you think
(0.6)* I don't know*

(4.9)* I don't know either* (9.8) what are 'some 'ways that 'history's repeated itself
'then
(2.3)* I don't know*

(3.8) what about the wars
(1.0)* 'what wars'

(.) the (. ) 'world war (. ) twq (. ) d'you 'think that was a (. ) a repeat (0.9)

'o of 'anything''

(10.5) no because of the: erm (. ) innovations (. ) and that de 'terrent bomb (. )
which'd never been used in the s- (. ) 'first world 'war (. ) made it 'completely 'different in that respect' (. ) we were 'better prepared 'than the 'first world 'war in
that respect' fas

(0.7) ↑ how come they didn't get in'volved in the first time 'then ↑ (. ) d'you know

(.) they 'did get in 'volved in 1917,' fas

'oh did they

(.) yes

(0.9) wha- (. ) in what way (. ) did they

(1.5)* 'well' (. ) they were brought into it 'rather than 'getting in'volved of their own
a'cord

(.) ri'ght

(.) 'German 'submarines had been 'attacking 'American ships trying to stop us being
fed (. ) they were doing 'very well they nearly 'starved us to death in
the 'first world ['war ']

↑ [oh ] right↑

(1.2) and em

(5.1) and what did the: (. ) the Americans 'came (. ) and 'they got rid of
the su 'bmarines

(.) 'nineteen seventeen (. ) they 'fought on the (. ) just as 'well (. ) cos after the
'Russian Revolution we'd 'lost (. ) 'Russia on our 'side fas

[rmhm]hm
(0.6) and we ‘just that moment (. ) thank ‘goodness we had the (. ) A’mericans (. )
made up for it (1.5) that Pe’ershing missile which is ‘name now (0.7) is ‘named after a
first world war general (.) ‘he was the co’manding chief in the first world war
(;) [they make now]  

(0.8) Pe’ershing (.) ‘they’re called’

(0.6) ↑ oh [did they] ↑

['one terrible thing we did after the ‘first world war which weren’t
‘anything to ‘do with the ‘Germans or our allies or anything like that- or the ‘Turks or
anything like that” (0.6) was the Amrija Massacre after the first world war (.) that
was in l’ndia (0.9) lots of l’ndians who ‘actually ‘fought with the British (.) during
the first world war (0.8) ‘General Daimond ‘shot a lot of l’ndians ‘dead =  

= ↑ why ..↑

(0.8) cos there’s (0.7) civil unrest in Amrisa (1.4) it was an unlucky day for them
‘one thing we did after the first world war which weren’t
‘anything to ‘do with the ‘Germans or our allies or anything like that-

↑ or: th nightma:re ↑ =

= and they were a:ll (1.0) ‘gathered in this squash

(0.8) and he’d ‘told em ‘not to be gathered ‘there

[(0.8) and] he ‘took some ‘armoured cars (0.8) and some

[mmhm m]

‘troops who were ‘actually Indians (0.8) and ‘Nepal Ghurkas

(.) yeah =

= and lined em up (.) and he didn’t give em any ‘warning to disperse cos it
were (.) the r- (.) un - (.) ‘lawfully (.) as’semble d anyhow (.) so he just ‘ordered them
to fire with ma’chine guns (1.1) and if he’d been able to take his ‘armoured car in he
would’ve taken the armoured ‘cars in (.) but it was too narrow for them to ‘get in so
he ‘didn’t ‘take them in

(0.8) what would’ve happened if he’d got the:se in =

(0.6) he ‘killed 379 ‘people outri:ght

(0.7) ↑ that’s outra:geous↑

(0.8) and ‘killed ‘one thousand and ‘wounded 1208 others

(0.6) ↑ that’s out- (.) outra:geous ↑ (0.6)how many-]

(0.8) he ‘killed 379 ‘people outri:ght

= ‘lots ‘more’d’ve been dead’

(1.0) and ‘all he said after that (1.2) his re’ply (.) to the Jalamwalaba: (.)
massacre was it did a ‘jolly lot of ‘good (2.2) and (.) to f: humiliate them he got
them on their ‘hands and knees they were ‘crawling on this ‘pavement where this
‘woman (.) had been beaten up (.) and didn’t (.) this Europe’an (0.7) they had to get
on ‘hands and ‘knees and ‘crawling (.) ‘all ‘four:rs this (.) ‘crowd of ‘Indians‘
(.) and they ‘whipped those who refused ‘tied to a ‘whipping po’st” they was meant
to re’sign from the army (1.2) and he ‘died in retirement in ‘nineteen twenty seven
(2.0) was there an uprising after he 'did that =

(0.9) cos everyone was 'too:::

(0.6) and another 'terrible' *thing* that happened (.) the 'man who in'vented gas
during the *first war* got the 'Nobel Prize for ch'emistry (.) which is 'frightened he
might get hu*ng (.) or *something like that* (1.4) or executed (0.7) but instead he got
the Nobel Prize he got honou'red (.) for his work in scientific circles  

(0.8) 'what d- (.) 'what did he in'vent

(0.7) he disco'vered the 'poisonous 'gas =

= o:h ri::ght

(0.7) and he 'got (.) the 'Nobel Prize for che'mistry

(0.9) god (2.0) oh that's h'orrrible (0.7) [who was ] it (.)

[the 'reason-]

d'you know 'who:

= Fritz Hêrber

(.) ri:ght

(1.4) i- (.) i'ronically enough he was one of the 'first 'targets of the 'Nazi reg:jme

(0.7) re:::ally

(.) ye'ah

(.) what (.) [they ki `lled him]

[ he was a Jew ] of 'all things (.) he didn't (.) he 'died in Swit'zerland in

'nineteen fif thirty fou:r =

= yêah

(1.0) but erm

(1.4) pe:cefully you mean (.) 'y[eh]'

" [peac] ef'ully (.) yeâh ' =

(1.8) but (0.8) the - (.) ger- (.) the 'Nazis didn't want him there (.) was 'that because
he was a scie:nt'st

(0.6) a Jew

(.) a Jew- (.) oh (.) ye`ah (.) ' cos he was a Jew`

(1.0) and em`

(.) god (.) that's bizâ::rre j'sn't it (8.5) do you know much about (.) what happened
to the Je`ws

(2.3) yeah but (1.1) in some respe:cts (.) em (0.8) 'chuck my coffee out (.) 'odd
taste in mj:ne

(0.7) 'what's wrong with yours

'I don't know (( 3 sylls))'

((goes to throw away coffee)) (39.9)

........................................................................................................................................
and erm (1.7)

* just push the door to*

(1.6) did you get rid of that coffee (.) were it horrible =

= yeah

(2.2) go on

(. ) what else*

(.) you were telling me about (.) you were going to tell me about the Jesuists then

(17.2) 'more about the war

(1.1) "Costa Rica " whisper

(1.0) a 'country which had never taken part in the second world war . hhh (.) which

ironically abolished its army 'three years afterwards 'Costa Rica

(.) mmmhm =

= that had 'never got invo:led

(1.6) 'why was that

(.) 'I don't really kno: w'

(1.2) they're 'not a 'very big cou:try are they (.) 'C]osta Rica'

[no ]

(.) they're in 'Central America (1.6) their 'name (.) 'means 'rich coast in 'Spanish

oh does it =

'costa is coast (.) 'rica is ri:ch

(0.8) wə:zəw (0.7) is it a (.) is it very (0.7) e::rm (1.6) 'fru (-(. e::r (.) have (.) have

they got a 'lot of e::rm (.) 'crops (.) and thi:ngs the[re ]

[they]y grow ba'nanas

and coffee there was (0.8) ba'nanas were intro:duced in the eigh:teenth century 'to

that country ((2 sylls))*

whisper

(0.6) to ou::r 'country

(.) no to 'Costa Ri'ca

(.) oh to 'Costa Ri'ca =

= it's not tropical in 'Britain it wouldn't " grow here"

(0.7) 'would the - (.) 'where did they 'come from (.) originally" ' then (.)

[bananas ]*

(0.6) I think I got an en 'cyclopaedia at ho 'me (.) they're (.)

'south east asian

fast S

( .) ri::ght

(1.2) ((2 sylls ba'nanas?))*

(1.2) there's loads of problems with ba'nanas at the momento you know (.) ba'nanas

are really 'cheap in the 'shops now

(.) yeah*

(.) it's because they u- (.) they're 'using erm (.) 'slave labour to

produce the[m (.) and

[right]"
covering them with chemicals (.) so you - (.you're supposed to be very 'careful
where you 'buy your bananas from 'now (1.0) and only get them from 'countries
where they're not (.) hurting 'people (8.8) do you know 'anything about the
Vietnam 'war
(1.2) it's finished 'thank 'goodness (.) it took a 'long time to (0.8) come to an 'end
(2.0) it did 'only 'continue what doing 'what the French had 'finished off (.) with the
Americans and they made a (.) worse 'job than the French did =
+mhm* (0.8) !
did the French 'start it 'at all↑
(1.0) yes*
(0.6) 'how come
(1.2) well they wanted independence (.) these 'country (.) from 'France
(19.9) lo" ads of 'wars a'ren't there (.) d'you know about
the Bosnian one (.) war [now ]
'[not really (.) no ' =
= have you 'not taken much of
an i'nt[erest ] in 'that (.) 'that's 'pretty
'[no ]'
'much o'ver 'now as well i sn't it =
= ah'
(4.3) I was 'reading about (.) Ga'ndhi (.) before 'you 'came in (.) in that 'book over
there (.) have you read 'that 'book
(1.0) 'what (.) where did they get this one from'
(0.6) have you not seen 'that one
(1.0) 'seen the (18.2)
have you 'not (.) have you seen 'that one before
(1.0) 'we've got the video of it that
(18.2) have you 0(18.2) o>h what (.) the film
(1.0) 'yeah'
(0.9) is it 'true to the st - (.) the 'real stor[y ]
'[sp>ose it is'
(0.7)ýéah (3.6) it's 'quite a 'lot pictures (.) did you 'know the 'guy who killed him
(0.7) did you 'know about the 'guy who kill'ed him
(0.9) 'not really ' whisper
(15.29) amazing 'man
(1.1) 'yeah'
(24.3) what 'other 'people do you know about (1.4) in 'history
(1.0) 'don't really know'
(3.1) what about 'Margaret Tha'cher
(2.0) .hhhh (.) she didn't do any (.) 'good for wòmen 'did she when she was prime
'minister (.) she did 'actually 'worse than a lot of män prime minister wo>uld do ]
"bloke in a frock (.) wasn't she

(.) a:h'

(4.3) or she 'may as 'well have been (2.0) don't think she really cared about 'women
did she (2.8) 'know she 'invented that (.) you know that whi'ppy 'ice-cream (.) that
(.) that (.) 'that i'ce cream that you 'get that's (.) like (.) 'curly =

= yeah

(0.6) she 'invented that (.) when she was at (.) university

(.) she didn't did she'

yea:h (.) becau- (.) and she invented it (.) because (.) erm (1.1) you can get 'mo:re
(1.1) money's 'worth of (.) of i`ce cream (.) because it's full of 'ai:r (0.6) so (.) it's
a 'really 'cheap 'way to (.) 'eat i`ce cream (.) so that's 'why she invented it

(.) (she didn't 'look at em*)

whisper

(1.0) (hhh) (1.5) 'that's a little known 'fact about 'Margaret Tha'tcher

(.) she lived in Grantham (.) with a grocery

(0.6) hmmm (2.5) who's your f'avourite prime minister

(.) HHHH (.) say I 'think er (4.1) I think if (.) a- (.) a 'leader was in'spired (.) ff (.)
'people 'since i - (.) i - (.) is (.) a-(.) 'actually 'difficult (.) to (.) to p'oint (.) 'one (0.7)
think 'James Callaghan was quite a (.) re'spectable'

(.) 'yeah ' people li'ked him (.) didn't they

(0.8)' think er" (.) it's a 'great sh'a me (4.8)' {sao} '}

(1.0) everybody li'ked him didn't they

T (0.9)' yeah '

S (1.1) 'nobody could ever find any scandal for him could the[y]

T [sp]lose they couldn't'

(1.9) what about (.) Harold Wi`lson (.) d'you re'member 'Harold Wilson

(0.9)' I suppose so ' (1.2) think 'Edward Heath was a bit 'too: erm (2.5)

confrontational wasn't he

(1.0) mmmhm (1.0) yea:h =

= s'he'd :erm

(5.4) d'you remember when he was in 'power

(1.0) he was so (.) he kept 'thinking he was the un'crowned king

all thef [time didn't ]he

[hhhhhhhhhh]

(0.7) the 'way he was behæving

(2.5) specially with that 'big be'lly

(1.9) it was a 'great sho'ck (0.8) when I 'heard the 'news that he'd 'lost his yâcht

(0.9) he 'lost his yâcht

(.) yeah (.) yeah (.) he 'likes yâchting his 'thing sunk

S (1.4) it sunk

(.) y'ês =
I don't know -

was he on it when it sunk

It's not but it's quite a shock for him that he'd 'lost his yacht

(1.1) Goa:; (0.9) yeah cos he used to love yachting (.) didn't he

[ yeah he ] di 'd

(4.1) have you ever been on a 'yacht

(0.9) (( inaudible 3 syllables -yawning))

(3.5) bet it'd be quite nice (2.9) didn't you go on any ↑↓ oh spose not ↓ (. ) in

No:rway (1.9) did you see any fjords in 'Norway

(. ) ye 's

(. ) 'what did they 'look like

(1.0) 'frozen hills I think

(. ) are they (1.5) are they 'all (1.4) còmplicated (1.3) and fri 'lly

(14.7 ) do you got your 'own room at 'Ambrose 'House (1.0) yéah (1.2) you don't have to shàre' with 'anyone' do you (1.7) is it 'all right (3.7) d 'you li 'ke it (12.1) so you 'ended up watching the 'football after 'all

( . ) ëh

(. )you ( . ) 'did you 'end up 'watching the football |aft | er 'a'll =

' [yeah] ' = Portug:al ( . ) won I

think

(0.9) that ( . ) what did they wjn by:

(0.7) * don't know * (1.5) they 'wear 'red and green

(. ) oh ↑ do they ↑

(3.5) 'Portugal throughout hisotry was 'Britain's 'friend ( . ) like 'France was its tr [a'ditional]

* [mmhm ]'

T enemy =

' [mmhm ]'

(1.7) they were- ( . ) they were ri - ( . ) o'riginally lòokìng for (2.1) in hisotry they were (. ) quite a ( . ) c- co'llo'nialistic (0.6) èmpire 'builder ( . ) they'd 'searched ( . ) for a 'passage 'round (2.0) the 'world to 'try and 'find the 'known 'world in the 'fifteenth 'centù [ry ]

' [mm] hm'

( . ) they having quite a (0.6) an 'èmpire ( . ) and it was by trèaty ( . ) by ( . ) coincid- that they 'managed to get Brazi `1 given to them

(0.6) ri:ght

( . ) Spanish and Spàin and Pòrtugal 'quarreland over South Amèrica

( . ) mmhm =

= so they 'tried ( . ) and 'send the 'people to seek adventure
by coincidence (0.6) Brazil (0.8) was given to Portugal

(2.0) Britain did very badly in South America

(0.7) just like walk all over the blumming place =

it's all 'Spanish =

you wouldn't think the Europeans would get coffee from South America (0.6) you could understand South (.) the U' nited States getting 'coffee from South America (.) it's nearer to 'Europe and that (.) South America (.) wouldn't it (.)

you wouldn't think the Europeans would get coffee from South America (.) where (0.6) Africa (.) or places like that (0.7)
yeah (1.1) maybe it's cheaper 'there (.) it's probably cheaper cos they don't pay their 'people much money

they actually have a 'coffee producer on their border the United 'States 'do

(0.7) they what

(0.7) they have a 'coffee producer on their bo' rder

(0.0) they do (.) wh' o's that

(0.0) Mexico (.)

[Me' ] xico (.) do they (.) 'make coffee

(0.0) gro'w it (.) yeah

(0.8) what's 'Mexican 'coffee like (.) have [you ever had it]

[ I don't know ] (.) but

'know that they 'grow coffee (.) they're one of the 'world's leading producers of it

(0.8) o' sh ri::ght (.) I didn't know that (2.7) thought they just made chillis

(1.0) they couldn't get o' ver there (.) it's more m[i]les (.)

[why :: ]

they could 'un less you would have thought they'd discovered A' frica before South America (.) a lot the over to 'Eu' rope and that (.) South America (.) wouldn't it (.)

[ mmhm ]

(1.2) mmhm (.) it's weird innit (1.3) [no-]

(0.6) Africa:: (.) or places like thjtt (0.7)

(0.7) they grew it (.)

(0.8) what's 'Mexican 'coffee like (.) have [you ever had it]

[ I don't know ] (.) but

'know that they 'grow coffee (.) they're one of the 'world's leading producers of it

(0.8) o' sh ri::ght (.) I didn't know that (2.7) thought they just made chillis
360
611 T (1.5) huh (4.8)
612 S have you been to America
613 T (1.0) héh (.) no (0.9) me brother has 'though
614 S (1.4) whereabouts did he go =
615 T = I don't know
616 S (1.5) do America produce anything
617 T (1.7)'probably do'
618 S (1.2) cotton (.) I think =
619 T = 'probably'
620 S [ produce 'cotton' or something" (1.2) and 'common
621 (1.9) ye-az:h (2.8) when the: (.) A'merican Indians were there (.) they used to grow
622 pe'aches (0.9) 'peach gro-ves (0.8) e'verywhere (4.7) 'what does this 'country
623 pro'duce
624 T (.)'hm'
625 S (.) 'what does this 'country produce
626 T (.)'I don't know'
627 S (13.5)'what will you be doing today'
628 T (0.8)'I don't know'
629 S (0.6) don't you know (0.6) is it up to A 'lan (.) does A 'lan de'cide what you 'do
630 T (.)'yeah'
631 S (2.6) does A 'lan de'cide what you gonna 'do
632 T (.)'I ho'pe not
633 S (1.0) you hörpe not ( hhhhh) (3.0) d 'you al'ways 'work with 'Alan on a 'Monday
634 T (.)'éh =
635 S = d 'you al'ways 'work with 'Alan on a 'Monday
636 T (.)'every day' whisper
637 S (.)'yéah (3.1) is it all ri 'ght (.) d'you enjör it al'right
638 T (0.7) I 'hope 'not'
639 S (.)'yéah (2.1) 'are you ti 'red' (5.9) you 'spent too 'long in the 'pub (9.2) have you
640 got any fri 'ends 'here (0.7) who do you (.) [se e]
641 T (.) [ I ] don't kno'w'
642 S (1.0) you don't know
643 T (0.6) Kévin 'sometimes' (0.6) I've been to his house 'once or twice'
644 S (.) oh yea 'h
645 T (.) do you know where A 'bley is
646 S (0.9) n 'o:
647 T (0.7) I 'pley 'area (.) 'know where it is'
648 S (.) oh 'right (.) 'North Tamshire
649 T (.) been to (0.6) Cârol's at 'Ipley'
650 S (2.8) is it 'up in the mo 'or (.) innit
651 T (.) I 'think so'
(0.6) yeah (1.5) what kind of house do they have

(.) huh

(.) what kind of house do they have

(1.4) I couldn’t describe (0.8) I couldn’t describe 'be it' while yawning

(0.7) couldn’t you (0.6) making me yawning (1.8) it’s infectious (1.8) what’s
your house like (.) where you used to ‘live (0.7) could you describe that

(.) it’s a semi detached and it’s white (0.7) it’s not a ‘very ’big
garden (.) very ‘small ‘front one (.) never ‘used ‘to ‘eat in the
‘kitchen at (.) ‘never used ‘to ‘bother ‘about ‘eating in the dining room

[‘sometimes ‘] (.) unless guests were ‘there

(1.0) oh right]

(0.6) right

(0.8) was that like the bedroom ‘then

(0.6) no: (1.2) we have ‘gas ‘one ‘time we used to have an electric ‘oven (1.2) what
d‘you prefer ‘gas or electric

(0.7) erm (.) ‘gas (.) for cooking

(0.9) yeah (.) I do (.)

(0.8) ‘what about you

(0.6) ‘gas

(0.9) yeah (0.8) so is it a gas ‘cooker ‘there ‘now

(1.3) used to have a ‘dog (.) ‘what ‘died ‘of old age (0.9) I didn’t go to ‘visit it (.)
wh bury it (.) wouldn’t have ‘minded ‘going out (.) I wouldn’t have ‘minded ‘going
out with my brother to ‘find out ‘where it went to

(0.7) right (0.8) where did it get buried (.)

(0.7) ‘right (0.8) I don’t know (.)

(1.9) ‘what was it called

(0.7) Timba (1.0) black

(.) was he:

(0.6) black ‘very ’hairy indeed

(0.8) was hhhhhhhhhh

(0.8) used to ‘brush his ’coat ‘off in summer and there was ‘loads
of ‘hairs [on the ‘brush]

[(hhhhhhhh)]

(hhhhhhh) (0.8) did you like him

(0.6) did he

(0.7) yeah (.) he used to ‘chase cats

(0.6) ‘bark at cats a lot
they arch their backs (.1- like that (.6) n- and spit (.6) they 'do 'spit
at dogs don't they =

= ye`z:zh

(.) goes ((spit)) (0.9) it's really disgusting (.6) you [never seen them]

[(hhhhhhhhhh) ]

(YYYYYYYYYYY)

but they arch their backs (.6) if they 'do that to 'make themselves give the
impression they're 'bigger than [they ] are

[mmhm]

(0.9) it's got 'everything to do with size (.6) if they 'look 'bigger than they are

(.) m`mh (1.3) and 'show all your teeth (0.9) like that=

= ye`ah`

(.) and [really 'scare ]

[ and da we(.) d] og (.6)went wowo[woooooo::::::::]

[(hhhhhhhhhhhh)]

(1.1) and chased them

(1.9) was it on a 'main room 'that 'house

(.) héh

(.) was that 'house on a 'main road 'that 'house

" [ no idea] ((2

syllables)) (.) in's (.) a 'cul de sac

(.) óh 'that's 'all right then ' (1.1) so he wouldn't get squashed (.) if

he 'ran [out (.) 'chasing the cat

' [ 'hope not ]`

(0.7)' nq'

(1.6) you didn't have 'any 'cats (.) 'then

(.) nq
Appendix 6.2.

Tom

Transcription Two: 1.7.96

Tom doing a peg puzzle

1  S   did you 'see anything on the telly this 'weekend' Tom
2  T   (0.6) ēh
3  S   (.) did you 'see 'anything on the telly this 'weekend
4  T   ' I can't remember' whisper
5  S   (4.4) can't you remèmber
6  T   (0.9) h'm
7  S   (.) 'can't you remèmber
8  T   (.) nó (.'I don't think so'*
9  S   (1.5) do you wàtch 'telly 'much
10 T   (.) yes (.'sometimes' (0.7) .hh we watched 'Passport to Pi`mlico: with (0.8) .hh
11 'Stanley Holloway:
12 S   (2.6) 'what was 'that abo'ut
13 T   (.) hhh a 'part of 'London' 'really like to become 'part of Bûrgundy
14 S   (1.2) that would 'like to become 'part of Bûrgundy
15 T   (0.6) yeah
16 S   (.) why:
17 T   (.) {an è is ɪs} this còmèdy wi - (.) 'nineteen 'fifties còmèdy with (.) 'Stanley
18 Holloway in (.) I can't remèmber anything else about (.) hhh I 'went for a 'walk
19 with me 'dad round this pàrk (.) 'place (2.1) 'weekend time'
20 S   (1.5) where was that (7.4) was it near 'Amber House
21 T   (.) 'could have been' fast
22 S   (7.6) 'what was in the pàrk
23 T   (1.5)* 'Princess Nina Pa`rk it 'was' fast
24 S   (0.7) it was whàt
25 T   'Princess 'Nina Pa`rk
26 S   (.) Princess Ni `na 'Park
27 S   (8.4) were 'àll the 'flowers out
28 T   (1.5) mm mm
29 S   (2.9) 'any ducks
30 T   (0.9) 'no du éks' fast
31 (5 seconds)
32 S   (5.7) what had your 'dad been do ing (.) did he 'tell you
33 'anything [hè'd been ] 'doing
34 T   '* [I don't know ]'
35 T   (1.1)* what*
36 S (5.0) does he work your 'dad
37 T (0.6) no:: (.) 'retired'
38 S (3.3) did he use to 'work
39 T (0.6) yes
40 S (0.8) 'what did he do
41 T (.) 'lecturer at 'Grape Lane
42 S (.) o':h right
43 T (.) 'heard of that place
44 S (.)hhumum
45 T (.) 'heard of 'Grape Lane
46 S (.)yeah (1.4) 'what did he lecture in
47 T (.) I can't rem'ember
48 S (6.1) is he nice (.) your 'dad
49 T (1.5) h'm
50 S (.) is he ni'ce (.) [your 'dad]
51 T [ yeah (.) ] I 'spose so
52 S (3.4) 'what does your 'brother do
53 T (0.6),hh I don't 'know
54 S (0.8)' don't you kno'w'
55 T (1.4) 'do you 'know what your 'sister does?
56 T (0.7) éh
57 S (.) do you 'know what your s i'ster 'does
58 T (.) no
59 S (13.9) have you 'read any stuff since I saw [you] 'last have you 'read
60 T [ éh]
61 S any bôoks (.) since I saw you 'last
62 T (0.7) n' I don't remember
63 S (0.7) nó: (32.6) it's been hqrrrible 'weather hasn't it (5.4)was it raining when you
64 'went to the pârk (.) Tom
65 T (1.5)'no I don't think'
66 S (37.5) 'did you 'watch the football
67 T (0.6) 'yes we 'did'
68 S (1.2) who did you 'want to win
69 T (.) ' I don't remember'
70 S (3.8) do you re'member who was playing
71 T (0.9) Germany and Czechoslovakia
72 S (.)'yeə:h' (6.1) did you 'watch it with your dad
73 T (0.6)'yes'
74 S (1.4) does he li'ke 'foot [ball ] your 'dad
75 T [yes]'
76 S (6.6) does he come up ´every ´weekend to see y[ou ]
T: (.) d’you ‘see him ‘every ‘weekend
S: (.) ‘every ‘other ‘weekend
T: (66.3) what ëlse have you ‘done to’day ‘Tom
S: (24.1) have you ‘done anything ëlse (.) to ‘day
T: (0.8) ‘can’t re’member’
S: (0.8) nó
T: (0.7) ‘don’t remember’
S: (30.7) you can make other ‘things with thô:se (.) d’you ever ‘make (.) ‘something
just (.) out of your head (.) on ‘there
T: (1.4) ‘don’t think so’
S: (. ) nó:::
T: (.) ‘no’
S: (1.1) do you li ‘ke ‘drawing
T: (1.2) ‘not always no’
S: (.) nó (1.3) ‘this is good (.) have you done ‘this
T: (1.0) .hhhhhh hhhhhhh
S: (0.8) yéah
T: ‘yeah’
S: ‘what did you do ‘last week ‘Tom (.) |you c - |
T: ‘[ |I can’t | remember’
S: (.) ↑ can’t you re’member ‘anything ↑
T: ‘((4 syllables))’
S: (.) ↑ did’nt ‘you go òut anywhere ↑
T: (.) ‘might have done’
S: (1.3) d’you go to ‘college
T: (0.6) ‘yes
S: (.) ‘what did you ‘do at co’lege
T: (1.9) this and that (.) ‘watched an ‘Elton John CD
S: (1.6) ‘watched an ‘Elton John CD
T: (.) ‘yeah’
S: (. ) oh ri ‘right (.) ‘what was that abòut
T: (.) I don’t ‘know no’w
S: (.) ‘what was it a sô:ng (.) ‘thing
T: (.) ‘could have been
S: (1.4) how ‘come you watched that (0.7) at e:mi
T: (yawn) it was just CD wasn’t it
S: (.) oh right (.) what do you d’o at ‘college
T: (1.4) ‘this and ‘that’
(2.2) what are you sup posed to do [Q ]

[ it's ] the 'first of July today isn't it

(.) it jus(. ) ye'ah

(.) my 'watch says the 'thirty 'first

(1.3) so does mne (1.4) we 'ought to change them (.) shouldn't we (3.6) d'you

'know how to change yours

(.) 'nou: '

(1.4) spect you just have to wi:nd it on

(1.0)'yeah'

(3.8) it's a bit annoying isn't it =

e = yeah*

(13.7) when's your birthday Tom =

= 'March the 'twenty 'third

(1.2) 'what did you do on it last yea'r (.) d'you remember (.) [this] ye'ar

(1.0)'I can't reme'mber I said*

(2.7) can't you reme'mber

(1.3)'no' (2.9) oh the 'Bridge at Rima'rgen

(1.1) what's that

(0.8) when the 'allies we - 'landed in Germany in the second world 'war

(.) there was this 'bridge between them and the Rhine

(0.7) right

(.) which was trying to be held (1.1) and they trying to blow up so the 'allies
couldn't use it but they { d`xgdem } explosives wouldn't work

(.) ri`ght (2.2) and 'what happened

(0.9) they got 'o:ver all right en (0.9) I' cros`sed the Rhine

(.) o:h rj::ght (2.7) is that in a fi`lm

(0.8) ((audible yawn))

(.) is that -(.) 'did that really hàappen

'yeah

(.) o:h rj:ght (1.1) 'who was in the- (.) the àrmy (.) d'you 'know who was on e- (.)

'each si`de

(0.9)' no'

(.)nô (4.4) d[o you 'know-]

[I'm 'doing ] this one 'aren't I

banging on picture he's copying

(0.6) ye'ah (.) you à're (.) ye'ah
After coffee break: Tom no longer doing peg puzzle.

'S right (. ) 'tell us what you been doing 'then

(0.9) ex:rm (3.6) 'well (. ) 'saw me 'dad y'e'sterday (1.8) and e:rm (2.8) he 'came for quite a 'bit in the afternoon (1.1) and I 'saw the fo'otball (. ) it was 'West Germany 'versus (. ) e:rm (0.8) Czechoslovakia

S (.).oh [ri 'ght ]

T ( Gürm ) any versus 'Czechoslovakia (. ) it's not 'cut

in twa 'anymore it's 'one 'whole 'country again

S (.). 'o:h is it jus- (. ) just Gürmny (. ) I didn't 'notice that (0.7) so did they have 'East Gürman 'players as well

T (.). no:: I don't [know] whisper

S [no ](.).don't know*

T (1.5) the 'person who built the original Ger- (. ) Berlin Wall's been put in 'prison

for treason

S (.).honestly†

T (.). 'Erik Honecker

S (1.7) 'what did he: (0.6) when did he get put in prjson

(1.1) [awm] not some years back

S (.).rj::ght (1.1) who do- 'who 'put him in prjson 'then

T (0.8) the 'authorities who 'took over the 'government in (1 syllable)

S (.).rj::ght (. ) and they (. ) 'put him in for trèason (1.5) cos he 'built [th-]

T [. it's]

'strange to 'think all the efforts the A'mericans (. ) put mi 'literally into 'trying to get rid of Cömminism .hmmm when they 'find it's just co'llapsed 'naturally of its own

a'ccord anyhow =

= ye(hhhhh)ah

T .hmm [so it doesn't make any 'sense ]

S [.hnhnhnhnhnhnhnhnhnhhnhhhhhhhhhhhh] hnhnhh must have been 'kicking themselves

T (.).you know (. ) cos y'all this (. ) 'wasted lives 'trying to 'fight against it and

'naturally of its own a'ccord 'everybody just doesn't want it 'naturally 'anyway it's just sort of a (.).hnhh (. ) a 'matter of 'voting it out

of (0.6) [ôffîce ] (. ) I 'guess 'nobody wants it

S [(hnhh) ]

T (.).year:h (. ) [they must-]

S [.see didn't-] (.). make 'sense (. ) the only 'countries what's 'actually (. ) Communist in the .hnhh (. ) 'litaral (. ) 'marxist (0.9) [dää:m] (0.9) tradition is 'North Korea in the nats- (. ) [{nd 'ats}]

S [rj:ght ]
it's fifty years or so even more than that (.) was the (0.7) the biggest
waste of (.) blood and [life (0.7) ] then (.) been in the whole of 'history jn't there

[hhhhhhhh]

(0.9) what about (.) in't Chi`na Communist anymore

(2.2) 'theory they've been (2.2) having us (0.8) {gaoan
fd} themthey've 'never 'liked Russia (.) so I don't think

they're (0.9) Communist (.) they could have (.) declared war on 'Russia

[ri::g ht (.) ye'iah]

(. ) er supposedly

(0.9) they were gonna or they could've

(.) I 'said er (.) al'most at war with 'Russia [at times]

[oi::h ri::ght (1.1) ri::ght (1.0) wh- (.)

what about these (.) elections in Russia 'though (.) because

they (.) [they've 'got a (.) Communist

' [ I don't know ]'

'candidate havern't they

(1.2) 'Yeltsin'd 'pass out any moment knowing his (.)

'health (. ) [you know] probably

[mmmh ]

(1.6) do you 'think they'll (.) 'get (.) that (.) 'Com- (. ) Communist

[ I don't ] know

(0.6) it's a 'miracle (0.6) 'Yeltsin hasn't been büried yet (.)

you'd [think ] (.) the (.) 'health (. )

[ ye'iah]

they'd have announce the funerar by now

'somethi[ng li keleton wouldn't you'

[ye a:h]

(.) well they 'reckon he's a (.) drikner don't they

(.) hëh

(.) they 'reckon he drik' nks a lot (. ) álcohol (0.8) so he (. ) they 'reckon he- he gets
drunk (.) 'sometimes (.) so he's 'probably not (.) that (0.7) 'good (.) a 'person to be
in charge 'really
(1.2) won't be 'long before there's a funeral 'there (.)
I bet (.) 'something like that (.)
(0.7) he'll be in the ground (2.1) what about (.) the 'Czech Republic (.) then (.)
d'you 'know 'anything about them
y 'grow a lot of rye (.) [ R Y ] J E
[do they]
(0.8) ye- (.) rye 'vita sort of 'rye:
= = yêah
they grow a lot of rye (.)
↑ do they↑
↓ yes
(1.0) ↑ what else do they have↑ (1.1)' anything 'else'
(8.3)' don't know'
(1.1) wh- (.) how many goals (.) were 'scored (.)
did you 'see it (.) on the [ ]
[hêh]
(1.0) did you 'see it on the 'football (.) 'Germany and the 'Czech Rep'ublic
(.) yeah
(.) did you 'see how many goals were 'scored ]
[ do ] In't think so
(6.6) I think there was only: (0.7) 'one or 'two or 'something (.) I
can't re'member (2.6) what else you been doing this 'weekend then 'Tom
(1.0)' I don't know '*
(5.6) did you go out walking
(1.3) haven't been 'walking for ages
(2.8) haven't you (2.2) ↑ oth r:i:ght ↑ (1.5) did you (.) 'do 'anything with your dad
(1.5)' no*
(1.5) went to the pa':rk (.) but the 'park isn't as scenis- (.) 'scenic as 'people give
credit for it .hhh it's got some 'nice red flow'wers (.) 'somewhere (.) there's 'trees
and 'cherry 'blossom 'things but (0.6) 'basically it's a bit (1.8) bit dull in 'parts (.)
but it's all right {s} 'really (.) I 'spose
(1.0) mhhm (1.0) is it a bit bôring 'though
(1.0) {sn-} 'not a'ways but (0.8) erm
(6.2) has it got any- 'any (.) wàter in it (.) has it got any ponds (.) nô: (0.6) thât's
'boring 'innit (2.8) is it (1.1) is it just grà:ss then (.) [it hasn't -]
(1.5) yeah =
yea:h (. ) it hasn't got a 'kids' play 'area or 'anything (2.0)* o:h dear'
(0.8) 'tis a bit dull isn't it (0.9) 'where's your 'favourite place that you 'like going
best
(0.9)' I don't know hònestly'
(0.6) nó
(1.3)' I just don't 'know'
(2.1) what about did you 'go to còllege last 'week
(.'yea:h'
(. yéah (1.4) 'what do you do at còllege
(3.1)'this and that' (. ) 'what ever they 'give us
(1.0) o:h rįght (. ) you don't have something (. ) 'set that you 'go and 'do 'every
wèek=
(à=no '*
whisperS (. ) nó (1.9) 'what they 'like 'down 'there (. ) they all rįght
(.'all right'
whisper, fast
(6.4) you seen 'anything 'good on tèlly
(1.0)' I can't re'member'
(0.6) nó y'haven't you 'had any vi `deos out or 'anything (23.4) what about
Ge'rmany (. ) do you 'know anything more about Ge'rmany Tom
(1.2) got a 'climate similar to Brítain(. )'s: (.)
I 'think [( . ) ](1.4) it's one of the bi_ggest
* [nìm] '
'countries in 'Europe 'think it is Europe's 'biggest 'country
( . ) 's: it (=
= e:xcluding Rùssìa
( . ) rįght
(0.8) as 'far as 'Europe 'goes (. ) 'it's quite big (. ) plà:ce{}`
( . ) yea: h`
( . ) got a river Rhi `mne (. ) in 'it
(0.6) yea:h =
= we've been to 'war with them twi `ce in nineteen 'fourteen to eighteen
'nineteen thirty nine to forty five
( . ) ri:ght
(1.0) 'everything was the revèrse of one 'a'nother (1.0) in the Napole'onic 'Wars (. )
Prussia as it was 'fought on our side against the Frènch
( . ) yea:h
(0.7) then 'later on they 'quarrelled with Rùssìa (1.8) and 'France helped them
{a'gent} Rùssìa
( . ) yea:h
(1.9) and 'later ( . ) we 'fought against erìn (6.1) 'Austrian and 'Germany had formed
'helpless against Frànce
thing became the reverse of one another and we fought against Turkey which we’d helped in the Crimean War fast.

fought against Turkey which we’d helped in the Crimean War. And every thing became the reverse of one another and we

(0.8) and so Russia France and Britain had fought against Germany and Turkey. Suddenly became the reverse of one another. The only difference is that America was on our side in the first world war for a bit.

(0.8) didn’t we’d never been a European war with America on our side before. But.

that’s weird.

fought against Turkey. And we fought against Turkey which we’d helped in the Crimean War. And every thing became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird.

fought against Turkey which we’d helped in the Crimean War. Suddenly became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird. And every thing became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

which we’d helped in the Crimean War. Suddenly became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird.

fought against Turkey which we’d helped in the Crimean War. Suddenly became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird.

fought against Turkey which we’d helped in the Crimean War. Suddenly became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird. And every thing became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird. And every thing became the reverse of one another. The only difference is that America was on our side in the first world war for a bit. But.

that’s weird.
Ja'pan had defeated 'Tsarist 'Russia
(0.7) 'two:;w ↑ I di'dn't kno[w that
(1.0) in 'nineteen fiv:e
what were 'they fi-(.) 'what were they f[i ghti ng 'over (.) 'those twq
(1.0) Manch'uria
(0.8) rj:i ght (0.8) is th[at -]
[be ] cause they wouldn't 'lea:ve (.) a piece of 'Asia called
Manch'uria they'd declared 'war on (.) Russia
(0.7) rj:ght (1.9) be[cause] 'Russians were in it and Ja'pan wanted it back
(1.1) no they were p'enetrating in the 'area in the [hope ] they'd 'leave the 'area
[ri:ght]
(0.9) and erm (.) they'd 'helped 'China 'earlier on in the 'earlier this century .hh (0.8)
a'gainst Jap'an [(). and ] 'helped got a bit of (0.7) 'territory back to Japa- (.) Chi `na
[mmhm ]`
[mmhm ]
a less ag'ressive pòwer in 'fact it was a mi -'major con'tribution to the Russia
'Japanese 'war apparently
(0.6) and erm (5.3) 'after the (1.0) 'Japanese (.) de'feated Jap'an (.) .HHH Rùssia
[mmhm ]
(0.7) 'Germany had 'less to fear from 'Russia so a'dopted a more (.) 'aggressive
'policy in ['North] Àfrica (.) trying to (.) 'hopes to make 'a bit of 'North Àfrica
[ri:ght]
f' themselves (.) 'hoped to 'get Morocco:
(0.7) rj:i ght
ori `ginally (0.7) but 'France (.) 'got that s:' 'thwarted by a 'conference in 'nineteen
oh sìx
(1.2) and erm (1.5) 'France got Mo'rocco:
[ri:ght]
[it] was 'sold to the 'Spanish
(0.7) ri:ght =
= it was 'Franco's 'Spanish (0.9) Mo'rocco e'ventually
(1.0) ri:ght'
(1.1) Germany was hoping to acquire it at Rant (.) [Rant] *  

[why ] (.) 'why did they want it  

(0.7) I think they ' wanted it to: erm (0.8) 'I don't know' (1.1) they just 'hoping for a bit of empire 'building somewhere (.) some[where th[at ]= yea'':::h  

(.) didn't have many 'colonies (.) they didn't have 'many 'colonies they 'wanted to expand 'some[where]  

[mmh ]mm (.) what col[oni-]  

[in an] 'area they'd (1.0) 'hoped to: erm (5.4) there's no 'actual 'reason 'why they wanted that particular country but (1.3) 'think it cos they 'wanted to (4.1) sort of ext'end 'influence in 'Turkish ho:ld  

( .) ri''ght = 'Ottoman 'empire 'from that area" ( .) 'who they were friendly with  

'Turkey you 'see =  

= ri''ght (8.4) it's amazing how it all 'works out isn't it (2.9) what about Japan and China have they had f- (.) have they (0.8) do they: (.) fi``ght 'each other quite often  

(. ) fi no I don’t think they have"  

( .) ri''ght (4.7) and what about 'Germany and Turkey (.) I, didn't 'realise that 'they had a (.) a re[lation]ship like that (1.3) I didn't 'realise they were on the 'wrong s[i`de ]"  

[but ] during the second world war 'Turkey was neutral  

( .) oh ri''ght ( .) ri:ght ( .) so they just 'kept out of it completel[y]  

[s]o] was Pòrtugal  

'neutral they'd 'fought on 'our si`de  

( .) ri''ght (0.7) why we- ( .) 'why did they keep o'ut of it d'you 'think  

( .) " I don't know’  

( .) ss: ( .) 'no resources' I don't think‘  

( .) ri''ght ( .) jus- ( .) they're 'quite a 'poor countries aren't they (. ) 'both of them  

( .) think Turkey’s about the 'poorest 'country in we- E urpe I think  

( .) js it  

( .) I think the ri`chest 'country in 'Europe's Swèden  

(0.8) ri''ght (6.6) what about Eng[land (. ) are wè 'rich ( .) or [ 'poor]  

[we:’ ]re (1.8)  

'probably [in between 'rich and 'poor aren't we  

[(hhhhhhhh hhhhhhhhhhh ] ])))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))  

(. ) 'pends who you à:re though  

(hhhhhhhhh hhhhhhhhhhhhh) (.) is everyone ri`ch in 'Sweden d'you 'think ( .) is everyone all ri ght do they have 'lots of (1.9) pòverty  

( .) 'I don't know' (3.3) .hhh (. ) 'somebody had 'gone to see this William Mòrris
'expedition (.) have you heard of that
(0.7) a socialist is an I thought (.) didn't have communism in the nineteenth
century did they

(0.9) in nineteenth century = yeah (1.4) so I (0.6) I suppose (.) d'you date

'communism from then

(1.7) I don't know'

(3.3) what about the 'William Morris exhibition (.) what was that
(0.8) I don't know s-(.) something artist (.) at the time I think'

[mhm ]

(0.8) mhm (1.3) he designed wallpaper and things I think and (.) material

(2.1) hh a strange unfortunate thing what happened to Van Gogh was hhh he
'painted millions of (.) paintings (.) sold only one in his life (.) now that he's dead
they're bloody masterpieces [those things]

[ I know (.) (0.8) I know (.) it's crazy]

[ people ] (.) w-

you know (.) look upon them as erm (1.0) at the time they only 'saw one 'now
(1.4) now that e- (.) he's dead (1.0) and he's been 'dead for several centuries
they 'think they're considered very very valuable indeed (.) if you 'slash a Van
Gogh you had to pay billions of pounds and [they're ]

[ yeah ]

very valuable (.) you [know (.)] protect like mad

[ mhm mhm ]

(1.6) they become accepted 'later on (.) it's 'no 'good for being
accepted later' on though

[ yeah ]

(.) they always say that 'appens to 'artists don't they =

[ yeah ]

(0.9) and d'you 'know what his brother 'did (.) Van 'Gogh's bro-ther' (1.3) he was
an art-dealer (1.1) so you 'thought he could have 'sold some paintings for him

couldn't you 'really (1.8) I think Van 'Gogh 'had a lot of problems 'though (0.8) he
could 'never 'fit in with things (0.8) d'you know what happened to him

[ ki ] itted
375

himsel [uf*(2 syllables)] (0.8) shot himself

'[ye-ah']

(1.7) 'but he djd 'didn't he' d'you li'ke 'artists

(0.8)

(1.7)

[ye-ah]

(1.7)° but he d'you 'know about other 'artists

(0.8)°

(2.2) 'Charles the 'first in his 'greed to get paintings made himself (.) the 'country

bankrupt 'buying Van 'Gogh paintings =

= Van Dýk 'paintings =

=Van

Dýk (.) ye-ah

(1.2) and so he 'ended up having to 'get parliament to 'try and 'give him some

money (.) 'ended out being a (.) 'major 'cause of the civil war thi- in the

'sev [enteenth 'century (.) his ] extravagance

[ ↑ oh honestly ↑ ]

(1.9) and 'all this buisiness

(0.7) ↑ that's bizárre↑

and erm (2.0) cos he almost 'bankrupted the 'country 'spending it on (0.7) 'things

for his (0.8) for his house (.) 'nice 'things

(0.6) 'Henry the eigths's 'famous 'painting was Hôlbein

(0.9)ri::ght

(1.2) and they 'painted hi'm

(1.2) th- who 'painted Henry the 'eighth =

= mmmhm^

ri::ght

(1.5) hh 'strange to think (.) in some respects they're very 'artistic in these 'centuries

↓ yet 'otherwise they lived in blumming pig sties in [other respects] ↓

([hhhhhhhhhhhhhhhhhh])

[that's all the truth innit]

([hhhhhhhhhhhhhhhhhhhh]) 'what do you 'mean by pig 'sties =

= ↑ well ↑ (0.7)

unhy'gienic condi'ions'en'=

'pain[tings on the wall ]

[it didn't make 'sen ]se to have a 'lovely 'painting in a (.)

'blumming [(2.1)] 'football pitch (.). did it [(hhhhhh)]

[(hhhhhhhh)]

[hhhhhh]
(hhhhhhhh) total tip (. ) ye:ah =
(3.2) ye:ah (. ) \( \dagger \) it's cra-zy \( \dagger \) strange (2.6) d'you know anything about the
e nglish 'civil war
(1.1) little bit ( . ) 'Oliver C'romwell came out 'best on' his (. ) 'si- de'
(0.7) it's the only time in history we've ever had a republic
(.) mmhm (1.1) but what happened though ( . ) cos we haven't ever =
'cut off
Charles the first's head' eventually'
(.) yeah (0.7) but what happened to 'Oliver Cromwell cos he didn't last that long
did it as a republic?
[h]e 'die:d eventually
(0.7) and then- (0.7) how 'come it 'ended up going back to being (0.6)
'we had [a king]'"[ well ] they de'cided that it was a bit (1.7) too: 'strict
(0.8) ri::ght
(0.6) so they di- (. ) 'had Charles the sècond again
(.) ri::ght (0.9) bet he was relieved (2.0) was he really strict then 'Oliver C'romwell
'stern and strict "fast
(1.6) 'stern to some people
(1.9) were they reli-gious
(0.8) yeah =
= 'Oliver C'romwell
(.) yyeah'
(.) 'what did they (. ) be-lieve in (. ) 'what kind of reli'gion' did they have |"[ don't ] know '"
(2.3) I know they hanged 'lots of people
(.) hêh
(.) they hanged a 'lots of people didn't [they]
[ 'so ] did the other people (. ) you can't put
'him down 'to that particular"[ "very"
(.) ye:ah (12.4) you ti:red Tom
(0.6) think so yeah
(0.8) 'why you ti:red \( \dagger \) =
= I don't know "fast
(.) d'you have a late 'night
(1.0) ' I don't know '.'
(3.3) 'what d'you do in the 'evenings (. ) d'you 'go out (0.9) are you-
(.) when I have 'pocket mo'ney 'yeah ' (. ) 'or if they ta'ke us 'out somewhere
(.) ri::ght ( . ) can you just 'go out when you- (. ) when you feel like it
(. I don’t know
(6.1) but if you- (.) if you ‘wanted to just ‘go (.) ‘go for a walk (.) or ‘go to the ‘pub
or something (.) could you just go
(2.9)’ I don’t know*
(0.7)’ oh right’ (4.6) ‘what do you ‘like doing (.)
if [you- (.) ] if you got ‘time (.) to
* [I don’t know ]*
yourself
( . ) no (10.8)
((sniff))
(1.0) what about that football then (.) it’s all over now innit
(0.6) suppose so’
(1.3) do you ‘watch the tennis
(1.0) don’t find that as interesting as football
( . ) do you not ‘(1.9) hope-
( I did ) you ‘see that ‘not the ‘nine o clock news ‘sketch
with ‘MacEnroe (.) that jokey ‘one
(0.6) what happened in it (.) I might have ‘seen it =
= where he’s ‘come in (.) and his
parents ‘there
( . ) yeah ‘( when he (.) has an ‘egg (.) for breakfast
( . ) yeah and ‘hit it ‘off =
= yeah (hhhhhhhhhhhhhhhh)
( . ) [ that ‘egg is not boiled (.) ’sit ‘down and enjoy your]
[(hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh)]
(hhhhhhhhhhh hhhhhhhhhhh)
= that ‘egg is ‘not (1.8) did you get ‘fined again
( . )’ I ‘did get fined again” ↓
(hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh)
(2.6)’ eh that was ‘great that was’
( . ) it was ‘really funny wasn’t it
(0.9) they had a (.) a: (.) a ‘Parkhurst versus ‘Wormwood Scrubs ‘quiz like
‘University Challenge
(0.7) oh (.) ↑ on: (0.6) ‘not the ‘nine o [clock] news ↑
[yeah ]
( . ) and for a ‘ten ‘year remi’ssion (.) who were the [‘Lambeth Garage (.) boys ]
[(hhhhhhhhhh hhhhhhhhhhh)]
(hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh)
([there’s this policeman taking ]
(hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh)
and then it has (0.7) 'Mad 'Axe Mo[lloy (.) 'studying (0.8)] 'Acid

Bath [Pete is 'studying]

[(hhhhhhhhhhhhhhhhhhhhhh)]

[(hhhhhhhhhhhhhhhhhhhhhh)]

(0.7) Riq::: (0.8) 'bank a'count in Ri- (.) oh [yès (.)that was it]

[(hhhhhhhhhhhh)]

[(hhhhhhhhhhhhhhhhhhhhhh)] (1.9) † that was 'really funny 'that †

'((4 syllables))' =

= I'd for gotten what it was li :ke

(2.5) on the (.) record I got of them (.)I had this (.) àlbum (( dysfluent mutter)) (0.6)

'verge Thâcher gonna immediate enqu'ry into the 'number of jobless blâcks (.)

she 'thinks there aren't enou gh

(hhhhhhhhhhh) there should be mo :re .HHHH definitely

.hhhhhh. (1.6) go:x she was terrible wasn't she

(0.7) and 'Prince Chârles (0.9) has (.) re'acted very strón gy to the 'word (.) his (.)

'use of the word knackered (.) to de scribe his con'dition after getting

back [from the 'polo (.)] which na- (.) 'next time

[(hhhhhhhhhhhh)]

he's [shagged out he'll give the ((1 syllable)) ]

[(hhhhhhhhhhhhhhhhhhhhhhhhh)]

(hhhhhhhhhhhhhhhhhhhhh)

(hhhhhhhhhhhhhhhhhhhhhhhhhhhhhhh)

(0.9) god 'that was such a 'funny programme (1.0) I can't rememb- (.) there's

nothing li ke that on anymore i 's there

(0.7) 'no m- no° (.) my 'next door 'neighbour used to wri`te that (0.6) he's [called ]

† [di' d he] †

Mr Ri`ley (.) L- 'Lenny Ri`ley* he was called'

(0.9) † and did he used to wrıte 'not the [nine o c]lock news †

[yeh ]

(0.9) he 'must have been a 'really 'funny (.) blöke [(. w -]

[yeah ] (.) he müst have been (.)

yeah

(1.0) did you tą:lk to him (.) did you ever s:pèak to him =

= yes'yes* sometime s

(1.3) 'what was he li :ke (.) was he [all r-]

[ oh / very nice fast

(2.4) what else did he 'do (.) did he do any 'other (.) stüff

(0.9) I don't re'member'
(.) did he make (. ) 'loads of money from it

(.) he 'might have 'done

(.) mmhm (2.5) d'you 'watch anything 'on at the moment that's 'funny

(0.8) don't think there i's anything 'funny on at the 'moment'

(0.9) no[oa: ]

['east] enders isn't funny 'in my opinion so:'

(.) d'you 'watch e:hhhhh:astenders(hhh) =

= 'not if I can help 'it no'

(hhhhhhhhhhhhh) .hhhhhh don't you like soaps

(0.9)' not really no'

(2.1) d'you 'watch e:mm (2.1) I 'watch Fri:ends' 'sometimes (.)

'some[times ] that's funny'

[WHAT ]

I 'watch Fri:ends (0.8) on tel:ly sometimes (.) 'that's funny 'sometimes'

(4.0) but there was (.) there was 'Lee and Herring (.) on back along (.)

'they were funny =

=HEH =

= did you 'see 'Lee and Herring

(0.9) I don't 'remember'

(0.6) they were 'funny (3.4) have you got loads of 'videos

(1.1) at ho:'me you mean

(.) mhm

(.) have you seen the 'film Sea 'Wolf (. ) be:fore

(0.8) no:

(1.4) during the second world 'war in the 'Indian 'Ocean 'port

of Gòa[ (.) which] had

[mhm ]

be:longed to Pòrtugal (.) the 'Germans had this trans- (. ) shi `p .hhhh where they

sh:-(.)

th[ey had ]his what sorry

[this big- ]

(.) shi `p (. ) 'spy shi `p where it's been t- (. ) 'telling (. ) them where our submarines

were (. ) to si `nk them

[. ] ri `ught

(.) 'all our 'ships and been getting infor'mation and (. ) blowing up (1.0) 'things so

they 'found out 'where it was (. ) by 'radio (. ) mònitoring

(.) yeash

(.) and they couldn't 'send it 'there cos they it's (. ) a 'portugese territory (. ) so

they 'd sent in their (. ) 'ex 'army unit which hadn't seen 'action since be:fore

'nineteen' hundred so they were going to 'blow their (1.4) 'blow the place up

(.) ri:ght (1.9) and did they 'blow it up
The image contains a text transcribed from a speech or conversation. It appears to be discussing a film from 1943, and a made-for-TV film, possibly referring to Roger Moore and other notable actors. The conversation includes references to various actors and their roles in films or television. The text also touches on the historical context of the film industry and includes colloquial expressions and slight imperfections in grammar.
you 'don't 'want him to die
but I just 'wondered why he was 'keeping 'going so 'long
maybe::: (.) he: er (.) 'takes a 'lot of vitamins (1.6) maybe he keeps 'fit and
healthy (1.9) who was your 'fa\'vourite 'James Bond
I think 'Sean 'Connery's the 'only 'one who could 'act (.) in the 'whole of the
'thing'

everyone else is 'hopeless (.) 'Roger 'Moore's too 'damn 'smooth to (.)
Appendix 6.3.

Tom

Transcription Three (WAIS-R): 8.7.96

1 S how many 'weeks are there in a year
2 T (1.5) wee::ks
3 S (. we::ks (. we::ks =
4 T = 'fifty two
5 S (.) ↓ very good ↓ (1.9) kāy (1.1) e::r (.) can you 'name the prime mi'nister of 'Great Bri'tain 'during the 'second 'world wâr
6 T (0.8) 'Neville Châmberlain
7 S (0.6) ↓ very 'good ↓ (6.2) .hhh (.) e::rrm (1.1) who 'wrote (0.6) Hamlet
8 T (1.1) Shakespeare
9 S (0.7)↓ very good ↓ (4.0) .hh (.) e::rr (.) what's the 'capital of Itâly
10 T (.) Rôme
11 S (1.9) ḧm (2.6) e::rrm (.) who was (.) 'Louis A rmstrîng
12 T (0.9) 'first 'man on the moon (0.7) âstronaut
13 S (0.7) okây (.) Louis 'Armstrong (.) Louis  
14 T = L - (.) Louis 'Arm[strong ]
15 S [ ye'ah ]
16 T (0.7 not - {næ [(.) stô?]}
17 S [not - ] (.) 'not Nèil 'Armstrong
18 T (.) 'brass bând 'man
19 S (.) thât's it (.) 'well done (2.6) kây ' (1.3) okây (0.7) d'you 'know who 'Amy Jôhnson was (.) 'Amy Jôhnson
20 T (.) 'woman âviator
21 S (2.5) I knèw you'd be able to do this 'really 'easily (1.3) okây (1.0) where does the sun 'rise (.) 'Tom
22 T (0.9) in the ḧâst (0.7) 'in the sky, (.) in the ḧâst'
23 S (0.9) hrhhrm (0.7) 'döne'
24 T (.) 'sets in the west 'side
25 S (0.6) very good (2.4) e::rr (.) can you 'name four prime 'ministers of 'Great Bri'tain (.) si_nce nineteen fi'fty
26 T (0.6) si `nèe nineteen 'fifty
27 S (.) uhuh
28 T .HHHHHH e::rr (0.7) 'Anthony Éden
29 S (1.4) yep
30 T (5.0) Harold MacMîllan
31 S (0.9) hrhhrm'
32 T (2.1) ↓e::rr↓ (0.7) 'Alec {dugîts} Hü:me
33 S (1.2)ye::s
in what direction (.) would you travel (0.8) if you went from Southãmpton (0.6) to Gibraltar
(1.5) east
(1.2) " hm"
(0.8) is that the right 'way↑
(1.3) south east I 'think (1.3) 'know 'quite (.) yeah
(1.5) why are dark 'clothes 'warmer than li'ght 'coloured 'clothes
(0.7) what
(0.8) 'sorry" (1.7) 'right
T (0.7) say it again
(0.8) why are dark 'clothes 'warmer than li'ght 'coloured 'clothes =
the hêt
(7.2) kā:y (1.7) who was 'Martin 'Luther Ki'ng
(1.0) merican 'civil ri 'ghts 'leader who was a'assassinated nineteen sixty eight
'memphis (1.7) by 'James 'Earl Ray
(1.2) okā:y (1.9) gôsh (.) is that who 'did it (.) I didn't 'know who 'did it (1.8)
e:::rm (.) on what 'continent's the Sahâra 'Desert
(0.7) A 'frica
(2.7)â:kā:y (1.1) what's the 'main (.) theːːme (.) of the 'Book of Gênesis
(1.3) the be'ginning of the world
(7.2) e:::m (.) whose name (.) is 'usually ass'ociated (.) with the Theory of Relativity
(0.8) 'Albert Ei' nstein
(5.5) 'what's (.) the Korân
(2.3) Islâmic holy book
(1.3) 'very good" (5.2) e:::rm (.) at what têmperature does wâter 'boil
(0.9) ' 'hundred de'grees cêntigrade'
(2.2) aːnd (.) how does yêast (.) 'cause dûgh to 'rise
(1.2) e:::rm (2.3) reac'ts with the 'flour
(1.2) hâhm (3.8) kā:y (6.1) name 'three 'kinds of blôod 'vessels in the 'human body
capillaries (1.1)
yeah (0.6) good
t (0.8) arteries
(2.6) 'very good'
vsns
(bri{l}liant (2.6) 'what's the population of the United Kingdom'
fifty 'six million (9.9)
okopy
(nearly there (0.7)
think it's (0.7) it says between 'fifty and 'sixty two 'million (0.8) so you're bit-
bite - (0.7) a bit hhgh (0.9) hhhh so what was 'Marie Curie 'famous for
discouraging ra
done' (5.8) errrm (.) 'how far is it from New York (.) to London
'thousand miles'
(7.7)
ka:y (2.5) a bit hugh again
(huh (0.9) hugh =
three 'thousand and four 'thousand so you're just a bit
'say (1.1) how many 'members of Parliament are there in the House of
'Commons
('hundred and fifty two (.) sorry
('fly two
(2.4) who 'wrote Faust
(2.6) 'what
('Faust
(3.6) Ma:rlowe
(2.2) say again
I don't 'know'
(2.1) kay that's go-od (.) so that's that one (.) 'brilliant (.) gosh (.)
did well there (1.3) got more than I 'did when I 'did it
(0.6) 'how many you 'get
you got (0.8) twenty::: s:ix (.) out of twenty 'nine (1.7) that's really good
('hnnn) 'that's 'more than I got (1.8) okay (.) right (2.9) right next 'thing I'm
gonna do with you Tom (1.2) I was gonna- show you some 'pictures (1.3) in which
'there's some 'important part 'missing (.) kay (.) an I want 'you to tell me (.) which
'part's missing (.) in the 'pictures
(0.7)
back to some words 'now Tom okay I want you to tell me the (.)
meanings of some 'words (.) okay (.) so (.) we'll s- (1.4) got them written
down (.) here to make it ' ea:sier (0.9) o kà:y (3.1) e:x (1.8)' here we go:: * (.) right (0.7) ' first of all' Tom (.) can you tell me what the ' meaning (.) of Wi' n ter (0.7) is (0.9) ' cold season T (0.8) hrmhm T (.) after ' Autumn T (1.7) ' brilliant ' S (1.1) before Spring (2.0) the ' sun's (.) be' low us in the sky, (0.8) after a ' less hour- (. ) the ' least ' hours of sun S (0.8)' br i li a n t (0.9) o kà:y (.) that's ' lovely (1.1) n na next one (.) can you ' tell me what br èakfast (.) means T (0.7) a ' first ' meal of the (1.5) dà:yi (.) prior to (1.0) w áki ng (.) from a ll ' the ' time when we haven't had it when we've been asleep for the only ac- (.) ' actions is not ' eating you're sleeping S (0.8) bri ' li a n t (0.9) o ká: y (.) how about (.) r ep:îr (.) can you ' tell me what repai r (0.8) (.) means T (0.8) to: e rm (2.6) re::'make from being e rm (1.1) dàmaged [(.] from [.] being (0.8) S * [ y : s: ] ' T com plied by some q cident (.) or (1.3) and ' how to ' put (0.7) some ((2 sy lls)) ' state without getting a new ' one (.) ' possible from the q:ld one S (1.4) w ón d erful (1.1) ↓ now ↓ (.) can you ' tell me what (.) fá b ric (0.7) ' means T (0.8) a s ort of (1.0) s ub stante (.) m át eri al (3.6) ' o bject (1.5) which is the:: (.) sort of ' building blocks of the:: S (8.8) that'll ' do ãctu ally I ' think ' Tom (0.6) you said (.) m- (.) m át eri al (.) di , d n't you T (. j mm' S (.) y éah (0.9) o kà:y (.) how about (.) ass èmb le ( . ) ' Tom ( . ) what does as[sèmb le] T [ what a] (0.6) a g áthering of (1.9) p eople for a (0.8) a p urpose like an a ssembly at ' school or an a ssembly in a (0.7) p árl i ament ( . ) or an a ssembly in a m eeting (0.8) [ ' ga ]áthering to'geth er ( . ) football crowd ' say S [ o kà:y ] T ( . ) you can ' g áther S ( . ) w ón d erful (0.9) ' excellent ( . ) how about en ó:nös m ou s (0.6) what does en ó:nös mous ( . ) ' mean T (0.9) ' bigger than life like ( . ) big an ( . ) en (0.6) ' p erfect (0.8) con's umed with s : ze (1.4) e rm S (5.3) o kà:y ( . ) ↑ g reàt ↑ (1.5) how about ( . ) c on c àl ( . ) what does co n[ ' c eal ] T [ h i : d e ] from ' s ight (1.1) ' cleverly ' sort of ( . ) c raftily (0.6) c onc àl S (1.7) o kä:y ( . ) gre àt (1.4) s èntence ( . ) ' what does s e n'tence ' mean T [ e i th e r ] a ' sense of
pri`son like a 'lifelong (1.3) many `years of (0.7) depri'vation of 'freedom (.) for
punishment's sake =

= yéah

(1.2) okay (2.4) say that 'last bit again cos I 'missed it

(1.1) 'word what (.) cons- (.) veys 'meaning in a 'written 'form

(5.4) okay yeah (5.8) cool (1.8) o'kay (.) a:nd (.) how about (.) règulate (0.8) what
does 'regulate 'mean (17.0) † know that †

(2.3) a mathematica:·l e·rm (9.3) occurrence

(1.5) okay (4.2) hrn (2.8) yeah (0.7) oka:y (.) I 'missed one out (.) 'actually
(hhhhhhhhhhh) can you tell me what consu::me (.) 'means (.) Tom (.) as well

[please]

[.hhh (.)] to 'u::se (.) like

{kon'sjú·mpfón} of oí (1.3) or eating or

(6.) yéah

(0.7) ûsage of

(1.0) 'èxcell [ent* ]

[ 'vast ] 'quantities of er (0.8) gènèrally in all 'things

(1.5) oká:y (1.0) how abou:it (.) te·rmìnate 9.) what does te·rmìnate 'mean

(.) to 'finish from (2.0) in it's compl ête(.l)iness (1.4) to te·rmìnate (.) to 'finish (.)
ex·actly com·pletely (.) like a

[ bús] 'terminus (.) at a 'terminus it doesn't (.) go anymo:re [(1.0)]

S "[yes]"  

[no ]"

from the (0.6) from the 'moving 'state or the ûsage 'sta·te (.) and 'termìnate the (3.2)

'life as return to 'life

(.) † yép † (1.3) † græt † (0.7) ho:w abou:it (.) comm'ence (.) what does comm'ence

'mean

(2.3) comm'ence 'means (.) 'start' dunnit'

(0.8) well done (1.6) a::::nd how abou:it (.) domèstic (.) what does

domèstic 'mean =

= you 'seeking ci·villian 'life as (.) f an 'ordinary household or:x:

S (0.8)'yép'

(0.8) made 'persons or 'person (0.9) of their

(3.8) okay (2.1) yeah (.) † that's fi'ne † (1.3) a::::nd (.) tränquìl (.) Tom (.) what does

tranquìl 'mean

(4.0) I don't know

(0.6) don't 'know what that me'ans (0.8) o:ka:y (.) hhhhhhh ho::w about (.) pònder

(.) what does pònder =
ponder a problem at articles like 'ponder the problem of the (. ) next world (. ) from the (. ) 'sinking state of mind as to 'that's fine (. ) we don't need any more (. ) how about (. )

designate (. ) what does designate 'mean excellent (. ) put some 'more on this side (. ) these are a bit harder still (. ) so what about obstruct (. ) Tom (. ) what does (. ) obstruct 'mean

'you (. ) very good (. ) be in 'way of excellent (. ) well done (. ) . hhh how about sanctuary (. ) what does sanctuary ['mean 'place of refuge for either 'animals or people (. )

'place of refuge (. ) and how about (. ) compâssion (. ) what does compâssion 'mean I don't know 'not being preci 'se 'not being pre[c- \ ) giving a 'sort of (1.1) very 'clear 'definitive response

(0.7) okay (2.7) yep (6.7) okay (. ) and how about (. ) what does remôrse 'mean I don't know 'not (. )

(1.4) okay (1.5) e::r (1.5) peri meter (1.5) what does perimter 'mean :n

(1.0) outside a- (0.9) e:rm (4.1) a rounded (3.0) shaped (0.8) 'out house building fr- from the 'outside (1.3) 'outside rim '

(2.6) yep (1.1) excellent (. ) . hhh a:::nd ho:ow about:::t generate (. ) a production (. ) of e::r (1.2) inert thing like electricity from a (0.9) 'solid matter like cpal or =  

nuclear power 

while yawning

matchless 'mean something what doesn't fit in perhaps
(0.9) in a specific form (1.2) mm
(2.2) okay (0.9) and fortiude
(0.8) just don't know
(1.0) okay (2.3) tangible
(0.8) don't know that one
(1.2) okay (1.7) plagiarise
(1.3) no = *no* (.) these are quite (.) unusual 'ones' (.) how about ominous
(1.3) I don't know
(0.8) encumber
(1.8) difficulty in (0.8) counting something
(0.6) *right* (5.8) *bri'll* (.) excellent Tom
APPENDIX SEVEN

Appendix 7.1.

Penelope

Transcription One: 15.7.96

1 S well do you want to tell me something about yourself

2 P (1.0) yeah

3 S (1.2) anything you like

4 P (1.6) been working at the Crown Court restaurant on the wednesdays and fridays I usually 'buy c.d.s every fridays then an now I'm 'saving to buy new clothes next week

5 S (1.0) right

6 P (0.6) an the bedding as well on the new curtain an the wá:ttch as well

7 S (0.6) yeah

8 P (1.0) been working at the Crown Court Restaurant on the wednesdays and fridays I usually buy c.d.s every fridays then an now I'm 'saving to buy new clothes next week

9 S (0.6) yeah

10 P (1.5) how long have you been working at the Crown Court Restaurant since nineteen ninety three

11 S (0.6) yes = loads of stuff

12 P (0.7) yéah

13 S (1.0) what do you do there

14 P .hhh I've been 'working sin{ss:} (2.1) e:::rrm 'four years ago 'since nineteen ninety three:

15 S (0.6) yeah

16 P (1.5) n- what d'you do there

17 S (1.7) I usually shell the eggs an (1.7) n' I usually- (.) 'met? team scQines an- (0.8) 'fruit an pl<ti:n (.) right n' I usually- (3.5) 'clear up the pots an- empty the ashtrays in those bags n- (0.8) n the rubbish in those bags.hhhh I usually did a lot of 'clearing the 'dishwasher.

18 S (0.6) ri'ght = n I usually 'put the pots a'way

19 P (1.3) ri'ght n' I usually 'put the pots a'way

20 S (1.2) n' stack the crisps an: (1.7) cå:ns up (.as wé:ll

21 P (1.0) an what d'you 'like doing best

22 S (. an what d'you 'like doing best

23 P (. 1 'like 'shelling the 'eggs I do:

24 S (. do yôu: (. d'you 'like doing that best

25 P (. yé:š l

26 S (. why- (. why d'you 'like (. 'doing that best

27 P (0.9) = yéah-

28 S (0.9) = yéah-

29 P (1.9) cos it's (. ni:ce
S (•) i's it 

P (•) yeah

S (0.7) an- an- d'you have 'your 'dinner 'there too

P (•) 'usually 'have a sandwich (0.7){a?}{0.7} 'Crown 'Court (•) I- (0.6) cos I .hhh

don't ne- (•) need to 'pay my 'money do I no:::

S (.no::: (•) so you don't have to 'pay your money for 'your 'dinner 'there

P (•) no:::

S (•) oh that's 'good (•) so you get 'free dinner

P (•) get 'free 'dinner either

S (0.6) an- an 'what- (•) d'you 'have in your sandwich

P (0.6) 'tunas

S (1.0) d'you 'have tuna 'everyday

P (•) ye::s

S (0.6) 'o::h lo¨vely'

P (0.9) {1ei::} as 'well

S (0.7) that's really good innit

P (•) really 'good innit

S (•) (hhhhhh) .hhh d'you li¨ke 'working 'there

P (•) I wo- (•) I like 'working 'there as w::ll

S (0.8) an- (•) ave you got some fri::nds 'there too

P .hh I've got Glidy's (0.8) 'Edith 'Ann (0.6) Marion as w::ll (0.8) and Wendy and

Donald Harris (•) the officer

S (0.7) ri::ght (•) wha- (•) the officer 'what (•) sort of 'officer is he

P (1.0) 'working on (•) in the {desk} as 'well

S (•) o::h ri¨ght

P (•) with {bi^ts:} (•) like that

S (•) ↑o::h ri¨ght↑

P (0.9) yéah

S (•) (hhhhhh) .hhhhhh (.•) you got all 'sorts 'work{|ng 'there then

P [mhm]

S (0.7) yéah

S (•) an- (•) 'what are they all li¨ke (0.8) "can you 'tell me a 'bit about ea-°(•) 'what they

look like an wha- (•) 'what 'sort of people they are

P (1.5) {nâts::}

large font indicates loud volume

S (•) ni¨ce =

P = yéah

S (•) *yeah* (•) an d'you 'ave to 'wear a uniform

P (•) I us- (•) have to 'wear uniform s'w::ll

S (0.6) mmmm (•) 'what 'sort of u¨niform is [ it- ]

P [WH]|TE one

S (•) ↑oh lo¨vely↑(•) wh- (•) an wha¨t is it (•) is it a pi¨n afore
white 'one [s we ] ill

"ri'ght"

ye'ah (.) is it- is it like an overall

[yeah ]

right (1.6) and- I expect you have to be very clèan (.) as [well ]

YE 'AH (.) be very

clean as wê:ll

"yeा::h" (1.1) an- (.) wh- what 'days d'you 'work thère

{wedzdeiz} and frîdays ( .) 'nine till three:

right (1.3) an- ( .) an do they pay you all 'right

yeah ( .) I 'usually get 'paid every 'friday ( .) as wê:ll

right ( .) that's good ( .) is it 'every wee[k you get 'paid .

yes::

(0.9)mm ( .) 'you said you were gonna save up ( .) 'for something=

= SAVE 'UP ( .) to

buy my new cloâthes (0.6) .hh and a bedding ( .) as wê:ll

(0.7) right ( .) 'have you 'seen 'something you fancy †

.hhh I chose that as wê:ll ( .) few weeks ago:: ( .) with Hannah

an- ( .) an 'what have you cho' sen

.hh 'chosen a pattern one as wê:ll

( .) a patterned 'what

P ( .) patterned curtains ( .) and a- (0.6) 'bedding as wê:ll

(0.7) are they gonna match =

=YEAAH mâtch

(0.6) an what 'colour i's it

(0.9) blue ( .) or 'green or 'something like thât( .) as wê:ll =

† ooh lovely †

( .) yéa::h

(0.9) an- ( .) 'where's your ( .) is it ( .) d'you li've at 'Poplar 'House

(0.9) .hh I 'usually 'live at Póolar House as wê:ll

(0.6) "ri'ght" (1.0) an:: ( .) 'sometimes d'you ( .) 'go somewhere èlse ( .) 'as well°

((1 syllable))

(1.6) e:::rm (1.7) nôâ:: =

= nó (0.8) nó ( .) you you just 'live at Póolar 'House then

I 'usually 'go on-( .) 'go home ( .) {sss}- (1.0) in 'summer and 'Christmas as wê:ll

( .) oh right ( .) and where d'you go then

I 'usually ( .) 'visit my parents [( .) as ] wê:ll

[æææ:h ]

(0.8) and 'where do they li've

.hhh 'Talma 'Road in Lòndon as wê:ll
'gosh that's a long way away isn't it
whereabouts in London is it do you know what the area's called in there
'Effra Park =
= go:ht
(0.9) near Hackney
is that where you grew up =
= YEA:h
(0.9) yeah with your mum and dad
(0.7) yesss:
(1.0) and do you just see them
(0.7) I usually see them in the summer and Christmas as we:ll
(0.6) do you stop with them in the summer or do you go for a holiday in the summer =
= go for a holiday we:ll
(0.7) yeah
(0.6) 'lucky you
(0.7) 'lucky me a:ah
[(hh)hhhhhh].hhhhhh (.) where are you going this year do you know
(0.7) I'm going (0.8) been to Lanzarote (.) this ye:mar
(1.3) I've been (1.5) I had a sunbathe as we:ll (0.9) I went for a ride around the countryside (.) as we:ll (1.4) an did some shopping- (.) for food as we:ll
(1.6) then I had a 'lazy' day on the beach either

(2.0) ↑ 'that's brilliant ↑

(1.4) w- was it hot

(1.0) was it-() was it green (.) or was it (1.0) got mountains on it =

GREEN (.) as well

(2 syllables) did you go swimming in the sea:

(0.9) and 'what does Lanzarote 'look like

(1.1) 'who was it who went with you I've forgotten

(1.1) 'Kate's (.) my key worker and (.) 'Karen an Kätt (.) an who's 'Karen

(1.0) an you gonna 'go anywhere a- () agàin

(1.2) 'Greece (.) 'next year

(0.7) o:: 'h that’ll be lo'vely
get a 'plane (.) and stay (.) an apartment as well
but you haven’t decided what to: own you gonna go to or—
I haven’t
deck`d (.) what ‘time as well =
= right
you ‘looking forward to it =
I’m ‘looking forward to it as well
‘that’ll be ‘really nice (.)* [won’t it]*
[really nice as well]
(1.5) and what’s Karen ‘like is she all ‘right
she all ‘right (.) she’s all right
(0.8) yeah (1.2) what does she ‘look like (.) because I don’t (.) know her at all
(1.2) but (.) but can you ‘tell me (.) what she looks ‘like
(.){kʰə:n} remember ((3 syllables))
(1.0) can’t re’ member what she looks ‘like
she’s (.) lovely
iˆs she
is she’s (.) nice
[yeah] (.) nice
key worker
mm (.) has she been your key worker for a long ‘time =
yeah (.) she’s been my key worker for a ‘long ‘time (.) since nineteen ‘ninety one
when she ‘first came in september
(1.0) and she was your key worker [straight away ]
[yeah (.) she] had ‘curly hair s‘well
(1.0) oh right
yeah
(.) yeah
(1.2) mm ‘h (1.1) how did she make it go straight (.) did she =
the
hairstylists
ooh (. ) they ‘straightened it all out [ (.) f or her.
(1.3) Trirght t(.) tbrilliant =

(1.0) whassínæme (.) Keïth

(0.9) who's Keïth

(.) Chëgwîn

(.) q::[:h rj::ght ]

[used to ]be on the Big 'Breakfast

I do you (.) like e:::mn (0.9) do you 'like e:rm (1.0) whassingme (.) Keïth

(0.9) who's Keïth

(.) Chëgwîn

(.) q::[:h rj::ght ]

[used to ]be on the Big 'Breakfast

(1.0) e:rm (0.8) yeå:h

(0.9) yeå:h (0.9) d'you 'like him

(0.9) who's K$ith

(0.9) Ch^gwîn

(0.9) [hrj::ght ]

[used to ]be on the Big 'Breakfast

(0.9) yeå:h (0.9) d'you 'like him

(1.1) yé::s:

(0.9) yeå:h (0.9) d'you 'like him

(0.9) yeå:h (0.9) d'you 'like him

(0.8) have you 'seen him on anything else since the 'Big

'Breàkfast

because 'Keith's has been off .hhhh but (.) he 'sometimes 'comes on (.)

{q keïzændi:}

(0.9) ag:::sh rj::ght (.) so he's- he 'does 'still dQ the 'Big 'Breakfast

(0.9) yeå:h

(1.0) e:rm

(0.9) yeå:h

(1.0) e:rm

(1.0) n'I thought p'raps he didn't dQ it anymore cos I 'know he used to 'do it

(0.8) ye::::s:

(1.0) e:rm

(0.7) what did he used to 'do on 'the:re

(0.6) he 'does the doorstep as wë::ll

(0.6) .hhh (0.8) y[ éa:h]

[an- ] (.) an wh- 'what kind of thj:ngs does he dQ after he's
'knocked on someone's door

.hhh just say ello: (. as well (. Kèith did (1.8) yea::h 

creaky voice - low pitch

(0.9) ave you seen im on anything else

(1.0) I saw Gaby Roslyn (. as wë::ll

(.) 'what did you 'see er 'on

(0.8) on the 'Big Brékfast as well'n Chris Evans

(.) yë::h yë::h (. cos they a::ll did it [djdn't they]

[ye:: s ]

(0.7) 'Gaby doesn't dò it anymore though does she

(0.8) no:::

(1.3) 'what does 'Gaby 'do no:::w

(.) she left- (. 'Big Brékfast in ninety fi::ve as wë::ll. ((0.6) {zau} Bq:ll (. 'first

started on the 'Big Brékfast in ni -ninety fi :ve

(0.6) ↑ oh did she↑

(0.8) ye'::s

(.) ↑that's quite a 'long 'time ago isn't it ↑=

(1.0) who else 'does it then

(1.6) 'Richard A`llford and 'Mark Li`tte

(0.8) ò::h (. 'who's 'Richard A`llford I don't think I knòw him =

(0.7) remèmber

(1.2) he an't don-- 'has he 'done any other 'things

(.) he 'does the 'first {dan} the dorrstep as wë::ll

(.) oo::h. (1.7) an 'what does (. 'Mark Li- (. 'Mark Li `tte

(.) I knòw 'Mar[k 'Little ]

[Mark ] from Neighbours=

= yë::h(.) he used to be (. 'what was he (. 'what was he called ↑on Neighbours d'you remèmber ↑(1.5) ↑Joe (. 'Joe Mangle was it↑

(.) 'Joe Mangle =

(1.2) ↑=yë::h(.) think it was 'Joe

(1.7) YE `A::H

(0.9) an they had a dog called Bquncer

(1.0) yë::h =

(0.7) yë::h =

(1.0) dog called Bquncer (1.0) yë::h

(1.2) d'you remèmber it (. yë[ah ]

[ys][ah ] =

(2.5) d'you- d'you remèmber (. how q::ld

(1.2) are you P- (. Péèn =
P = mm =
= how old are you

(0.7) right. I don’t think you’ll remember then but years and years ago there

was a programme called (0.6) Swap Shop

Swap Sh(hhh)op (hhhh) =
= d’you remember it

KEITH used to be on [Swap Shop (.) as well]

[that’s it (.) he did ] didn’t he

(0.6) yea:h

and he used to do: e::rrm( .) he used to do the- the- th- he used to go out and do

the swapping

ye::s: (1.0) Keith ( .) Chegwin ( .) does ( .) does the ‘big swapping

as we::ll=

ye:::::ahº on the w- ( .) was it ‘called the Multicoloured

‘Swap ’Shop =

= ‘Multicoloured ‘Swap Shop

(0.6) that’s it (0.7) d’you remember it then

( .) ye::s:s[s ( .) I remember ] ed it

[(hhhhhhhhhhhh)]

(1.0) ‘once they ‘came to the ‘town where I ‘lived and I went along and I ‘swapped

sm- I ‘swapped ‘one of my ‘games ( .) for ‘something else

( .) ye:e:h

(3.9) ‘but yea:::h it was a ‘lo:ng ‘time ago”=

= yea:h

(0.8) did you ‘ever go to ( .) the ‘Swap ’Shop did they ‘ever ‘come to your ‘town

(0.7) sometime:s e:h ( .) ye::ah (1.5) he:’s a ‘lo:vely ‘man

( .) büss him a::ch eh ] ( .) eh

[(hhhhhh)]

(1.7) is he your favourite

YE `AH is he- ( .) is he- (0.6) he’s my fa:vourite ( .) man e::h

(1.0) ‘what d’you like about him

(0.8) he’s- ( .) he’s- ( .) he’s pretty ( .) he’s bëautiful ( .) he’s a very ‘gorgeous ‘man

[ ‘Keith Chegwin is ] e:h

[(hhhhhhhhhhhh).hhh ]

(1.1) yea:::h

(0.7) he always ‘looks very friendly an ‘hap[py doesn’t he ]

[ye:::::ah ] ( .) {va}’friendly and

happy e::::h

( .) rmrm

(0.7) ye::s:s (1.4) he’s got ‘medium ‘sized thumbs as well ‘Keith Chegwin has
(0.9) how do you know they're medium sized

that 'one[ (0.6) thin ] is 'one

[ oh right ]

(1.1) is that 'medium sized

(0.6) yeâh

(1.2) have you got 'medium sized 'thumbs as well

(0.8) yeâh

(0.8) good 'n't it (.) I 'like your watch

(0.8) like my watch as well =

= beauitiful that

(0.9) lovely colours (.) s'well

(0.9) do you 'like anyone else on 'telly

(0.6) I 'like e::rm (.) John Craven

(0.6) do you =

= yeâh

(0.8) is he 'still on (. ) 'what does he still on

(0.8) ò::h (. ) was on the s- (. ) con- (. ) {ss} (. ) 'multicoloured swap 'shop John Craven

(0.6) was h:::

(0.9) yeâh

(0.9) oh right

(0.7)yâh (1.4) he 'does the Country 'File s'we::ll

(1.4) ò::h (. ) is 'that on telly nq::w =

= yeâh

(0.9) yâh ( . ) and d'you 'watch hi'm 'every 'week

(0.6) sometimes (0.9) but not all the ti::me
What else do you like watching?

I like Noel Edmonds and [w-]

I haven't seen him on telly for a while:

I like [like that size]

Keith Chegwin has [like that]

I like those shows thumb

And Marcus has got big thumbs

Who are they?

Sam and Marcus have got big thumbs

Alan's got big thumbs

Sharon's got medium sized thumb like mine

When did you find out that Keith Chegwin has got medium sized thumbs

got medium sized thumbs
[(hhh)]

(hhhhhh) yːː(:hh)ah () on the tɛlly I measured his (1.4) 'thumb

like 'mɪːːne =

= ʻoːːh did you: ʻ =

= yéːːh =

= (hhhhhhHHHHH).hhhh () you

'jammy 'dodger

(0.8) ʻëh =

= th- that was a 'good idea

P (.) yeːːːs:

S (1.4) an- () an you 'found out that his were mɛdium 'sized

P (.) yeːːːs

S (.) riːːght () have we go- have you got 'small ʰɑːːnds as wɛːl

P (.) got 'small {hɑːː;}

S (.) cos I've got 'small 'hands so if I've got 'small 'hands [you've g]ot

P [ yeːːːːs ]

S 'small 'hands =

= you've got 'small 'hands hæven't you =

P = yeaːːh

S (0.9) you got 'nice nɑːːːls

P nɑːːːls () as 'weːːl =

S = mmm

P (0.7) yɛːːs:

S (1.0) mmmm

P (.) yɛːː (3.5) "yɛːː"*

S (7.0) ʻləvəly

P (.) ʻləvəly (5.2) "yɛːːh"*

S (2.6) I 'like how you 'got your hɑːːir as well Penelope

P (.) yeːːːːs:

S (.) did you go to the hɑːːrdressers to ge- 'have it done

P 'lːː- 'I usually have it done at Sɒphies () I mean () Snippping

S 'LOCKS {ə} - in 'Kirk -() wɛːːl [as 'weːːll]

S [ɡːh ] riːːght () it's rɛlly nɪːːce

P (...) ʻrɛlly nɪːːce wɛːll†

S (...) are they nɪːːce in 'there

P (...) mmm (0.9) m yɛːːːh(1.0) .hhhhhh thanks: .hhh () I had my hɑːːir 'coloured ()

as wɛːːll

P (...) oh is it coloured†

P (1.1) 'Karen {hɛnd}it () my hɑːːr for me as 'weːːll

S (...) oh () is it got 'henna in nɔːːːw

P (...) yeah hɛnnaed
is it brown henna (1.2) or red henna

(0.6) red

(0.8) oh it's lovely isn't it?

(0.6) is your hair quite dark then normally

(0.6) lovely as well

(0.6) reid

(0.8) toh it's lovely isn't it!

(0.6) as

(0.6) ye::ss

(0.6) black

(0.6) black

(0.6) is your hair quite dark then normally

(0.6) your

(0.6) black

(0.6) as

(0.6) I thought it was your natural colour I just thought you had beautiful hair

(0.9) mmm

(0.9) but's - looks really nice in it

(0.9) yeah

(2.5) I'll have to try some of that on my hair as well

(2.6) have you got any brothers and sisters

(0.5) I got one brother and one sister
Appendix 7.2.
Penelope
Transcription Two: WAIS-R; 22.7.96

1 S  erm (0.6) d'you know what còlours are in the 'British flag (.P) Pe'nelope =
2 P  = párdon
3 S  (.) d'you know what còlours are in the 'British flag
4 P  (1.4) 'yellow (.) red (.) as::nd whi ::te (.) as wë:ll
5 S  (1.4)'okà:ü (2.7) 'okà:y (.) nòw can you tell me 'what (.) the shà::pe of a 'ba::l is
6 P  (1.2) ci `::rcle
7 S  (.) yéa::h (2.4) 'uh (2.0) e::rm - (.) nòw d'you 'think you could tell me (.) how many months: (.) there are in a yëa::r
8 P  (1.6) twë:1ve
9 S  (.) 'very good
10 S  (2.0) now d'you know what (.) a thermòmeter's fo::r
11 P  (0.6) párdon
12 S  (.) d'you know what a thermòmeter's fo::r (.) 'what d'you use a thermòmeter (.)
13 [for ]
14 P  [{hìna?] (.) dönt 'kno:w
15 S  (.) dönt knö:w (.) 'okà:y (2.4) d'you know how many wëe::ks (.) there are in a yëa::r
16 P  (.) in a yëa::r =
17 S  = yëah
18 P  (1.3) ê::rm (2.0) 'no dönt 'kno:w =
19 S  = right (.) okà:y (2.1) d'you 'kno:w (.) the nà::me
20 P  (.) of any 'prime mìnìster (.) of 'Great Britìain (.) during the 'second 'world war
21 S  (.) Mrs Thatcher
22 P  (.)
23 S  (2.0) lo:vely (2.0) d'you knö:w who 'wrote 'Hamlet
24 P  (1.1) { hò:dn}
25 S  (.) d'you 'kno:w who wrö:te (.) 'Hamlet
26 P  (0.8) ((cough)) (1.0) ((sniff)) ê::rm (.) can't re:member
27 S  (1.0) kà:ü (3.7) as::nd (.) d'you 'kno:w 'what the 'capital (.) of ì::tal is
28 P  (0.9) úur::h
29 S  (.) d'you know what the 'capital cìty of ìtal is
30 P  (0.8) don't re:member
31 S  (.) nò:: (.) o'kà:ü (0.8) that's great
32 P  (0.7) yéa::h
33 S  (.) týeah
34 P  (1.5)'thank you*
35 ..........................................................
right (2.1) right now (1.8) my dear = yeah
(3.1) going to ask you what some words 'mean 'now okay
(.).yeah
(0.6) is 'that all right
(0.6) is 'that all right as well
(1.7) right
(.). yéah
(1.0) first 'word
(0.6) [yéah]

[ lo- ] (.). 'losing my things 'here
(5.2) hhhhhh[hhh ]
[ kây ] (.). is (.). bed

(1.1) to travel on yeah (.). and to go on yeah
(0.8) yéah
(5.7) râm (7.7) okâ: y (.). that's lovely (0.9) how bout pènn[y:]
[pènny]
(.). d'you know what pènny 'means
(.). 'penny 'means (.). 'spends a pènny (.). go to the toi::let
(0.8) okâ:y (3.0) anything els::e (.). about pènny:: (.). n can you 'tell me a 'bit more
about what 'penny mèa::ns
(.). 'penny 'means spènt (.). to 'buy 'sweets as wè::ll
(0.6) uhûh
(0.8) okâ:y
(0.8) y-yèa:h
(1.7) okâ:y (3.3) okâ:y (.). no:w 'what about (0.6) wi`nter (.).
wh[at does ] wi`nter 'mea::n
[wi`nter]
(0.8) winter 'means: (0.9) the sno::w
(0.7) it does yeah (2.3) *okâ:y * (0.8) how about (.). breakfa::st =
breakfa::st mèa::ns (1.4) having cêreals as wè::ll
(3.8) kâ::y (4.8) okâ::y
(0.7) ((cough))
(3.8) right (.) o(.)key (.) what about repair (.) what [does-]
= yeah what does fabric 'mean
(0.6) e::rrm (4.1) I can't re'member (.) wh[at a {gmb}]
(1.2) hafa?i remember
(1.8) how abou::t (1.3) enormous (.) what does[-]
[e]'no:rmous
(1.4) o'key (3.1) e::rrm (.) how abou::t (1.3) enormous (.) what does[-]
[mean]
[conc ]ea::l (.) 'means (.) can't re'member
(0.7) okay (1.4) a::nd (.) what does sentence
(0.7) 'sentence' mean 'put the 'words right 'either
(1.8) 'kay::y (5.9) kay::y (3.9) no::w how abou::t (.) cons'u::me (.) d'you know
103 what that 'means
(1.2) cons'u::me (.) 'means (1.3)((cough)) ca- ((cough)) re'member
(0.9) 'okay::y (1.9) régulate (.) d'you know what[that means ]' ↑
106 P

'swimming 'once a week
(0.9) "right o (2.1) 'termine (.) what does terminate 'mean
(0.9) oq::h (.) my 'nose is blocked
(0.6) "yeah o
113 P
114
115 S you all right sweet

[ havin-]
(1.3) what about (.) commença (.) what does commença [ 'mean]

[ comm]ence 'me::ans (. ) t-

c-a-(.) can’t remember =

= 'all right 'love’ (2.0) doméstic (.) d’you know what
domestic 'means

(0.6) do'mestic 'mean 'doing their ‘washing and ironing as we::ll

(1.0)(okä::y° (9.1) "mmmmm°=

=(3 syllables))

(1.3) okay (.) how about (.) tranqui]l (.) what does tranqui]l [mean]

[ 'tran]quil 'mea::ns (2.2)

an’t remember

(0.6)"mímhm°

( .) (hhhhhhhhhhhhhhhhhhh)[hhh]

[s’all ]’right these are æ:rd (. ) ö'these ]’ones°

[ ’a:h’]

( .) what bout ( .) pònder d’you know what [that ’means]

[pònder ] ( .) ’me::ans (. ) can’t

remèber

(1.4) e::::i] (. ) désignate

( .) {dʒ:ʃ:i;nei;ʃ} (0.8) can’t remember

(0.6) relúctant

( .) relúctant (. ) no::: ( .) can’t remèber

( .) ’okä::y’ ( .) ’think we’ll have ‘one ‘more in this òne ’ (0.7) obstrúct

(0.6) obstrúct

(1.4) 'know what that means

(0.7) can’t remèber

( .) nó ( .) ’all right ’love