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Rethinking agrammatism: using conversation analysis to investigate the talk of individuals with aphasia

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Abstract

This thesis applies Conversation Analysis (CA) to the phenomenon of agrammatism, a particular type of aphasia (a language difficulty acquired most commonly after stroke) which is characterised by grammatical impairment. Although mainstream research has done much to characterise the nature of the underlying disorder, most studies have analysed elicited, task-based data by applying the theoretical concepts of a standard grammar; the well-formed sentence, clause and phrase. As a result, little is known about the grammar that people with agrammatism use in real, everyday talk-in-interaction with habitual conversational partners. This study investigates the utility of CA as a tool for the exploration of conversational grammar in agrammatic aphasia.

The data comprise video-recordings of the conversation of two adults with agrammatic aphasia, recorded in the home talking to a family member or friend. Conversation is contrasted with single word-, sentence- and narrative-level language samples elicited via commonly used clinical assessments. The data-driven procedures of CA reveal recurring turn construction formats in the talk of the individuals with aphasia. Cognitive neuropsychological, linguistic and psycholinguistic methodologies are drawn on to analyse the elicited language samples, in order to produce the type of clinical profile of agrammatism on which speech and language therapy is based. A comparison of the two samples finds that turn construction for conversation differs from sentence construction for testing.

The thesis concludes that the conversation of both aphasic speakers exhibits structure and systematicity, a 'grammatical' organisation, but that the constructions documented do not resemble the sentences, clauses and phrases of a standard grammar. Rather, their form is shaped by the interactional demands of taking a turn at talk. The study questions the widely-held assumption that elicited language tests provide a view of grammatical impairment that is synonymous with the reality of the condition for the person who lives, and most crucially *talks* with it.

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Introduction and aims of the research

"Though lacking the ability to produce fully fluent speech, many...aphasics...display remarkable creativity in finding ways to manipulate language, not as something locked inside the individual but instead as socially distributed ecology of public sign systems, in order to produce, in concert with others, consequential meaning and action. They are able to do what they do precisely because they are not isolated actors but participants within a larger social and cognitive world being structured through ongoing processes of human interaction." (Goodwin, 2003a: p. 17)

1.1 INTRODUCTION

This thesis aims to apply Conversation Analysis (CA) to the exploration of an old and well documented aphasiological phenomenon, agrammatism. Agrammatism is typically defined with reference to distinctive characteristics in an individual's speech output: reduced complexity of syntactic structure; omission of morphological elements such as determiners, auxiliary verbs, prepositions, personal pronouns and tense markers; word order problems; reduced ability to produce verbs (Menn, O'Connor, Obler and Holland, 1995). In severe cases, output can be restricted to a series of nouns. Current approaches to agrammatism adopt a decontextualised approach to language, both in terms of data collection and analysis. Thus, agrammatic output is commonly sampled by asking the individual to produce a series of sentences that describe a picture or a sequence of pictures. Other regularly employed methods of data collection include the speaker re-telling a well-known story such as a fairy tale, or engaging in dialogue on a pre-set topic with a professional researcher. Having been elicited in this decontextual manner, the data are then investigated using linguistic concepts such as the morpheme and the sentence.

Whilst this approach has provided many important insights into agrammatism over the years, it isolates the morphological items and syntactic structures under investigation from the interactional contexts in and for which they are produced during real-life language use. Therefore, current theoretical accounts of aphasic grammar fail to reflect the primary use of language as a means of interaction between peers in real-life situations. As a result of the over-emphasis on elicited samples and

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decontextualised units of analysis, little is known about the nature of the grammar of interaction used in everyday talk by people with aphasia and their main conversational partners. There is evidence to suggest that this situation may have implications for the efficacy of intervention programmes that target grammatical deficit. Byng and Lesser (1993) directly attribute the commonly reported lack of improvement in the structure of everyday language after treatment for grammatical impairment to the application of theory based on elicited, descriptive output, which is, they point out, "not necessarily a part of everyday communication" (1993: p. 358). They emphasise the need for a "different way of approaching the remediation of these problems...to meet the needs of the patients" (1993: p. 359).

An alternative approach to grammar as used in everyday interaction emerges from the CA literature. CA, a technique that has its roots in a branch of sociology known as ethnomethodology, affords a distinctive view of language as a tool for interaction in real-life situations, the characteristics of which occur as a direct result of the demands of constructing a turn at talk. For many years CA investigations have examined the organisation of turns at talk and particular aspects of language as resources for turn management (Sacks, Schegloff and Jefferson, 1974; Schegloff, 1979; Local, Kelly and Wells, 1986; Lerner, 1991). The relationship between grammar and interaction provided an early and promising focus of study (Sacks et al, 1974), which has undergone a resurgence of interest (see papers in Ochs, Schegloff and Thompson, 1996) as part of a wider endeavour involving conversation analysts, linguists and anthropologists, the outcome of which is often referred to as Interactional Linguistics (Couper-Kuhlen and Selting, 2001). Crucial to this research is the concept of grammatical structures, not as a product of an abstract system but as "communicatively...real events in time" (Auer, 1996: p. 59). The CA evidence suggests that the grammatical structure of the sentence may be understandable, in part, as an adaptation to the environment in which it naturally occurs, a series of turns at talk in conversation. Only a small number of studies have so far applied this concept to the investigation of aphasic grammar (Wilkinson, 1995a; Heeschen and Schegloff, 1999; 2003; Beeke, Wilkinson and Maxim, 2001a; 2003a; 2003b; Lind, 2002a; Wilkinson, Beeke and Maxim, 2003).

This thesis will take an approach to aphasic grammar that is rooted in the language of real-time real-life conversation. Specifically, it aims to explore the notion, proposed by Wilkinson (1995a), that task-based grammar and conversational grammar do not necessarily reveal the same phenomena. The data comprise videotaped

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conversations of two English-speaking individuals with agrammatism, each talking with a family member or friend. The aphasic individual's output on single word, sentence, picture description and narrative tasks is also explored. The investigation will use the methodology and analytical findings of CA to explore the possibility that characteristics of aphasic interactional grammar may be shaped by the demands of constructing a turn at talk in conversation. In addition it will apply the approaches of cognitive neuropsychology, linguistics and psycholinguistics to elicited language samples from the same individuals, in order to permit a comparison between a clinical speech and language therapy profile of agrammatism and findings from the analysis of conversation.

1.2   RESEARCH QUESTIONS

The following questions are posed:
1.   What resources does a speaker with agrammatism make use of in order to construct a turn at talk?
2.   Is the conversational grammar of a speaker with agrammatism organised in a systematic way?
3.   What is the relationship between the turn construction formats of conversation and the grammatical characteristics of output elicited by decontextualised language tests?
4.   How useful is CA as a tool for the investigation of agrammatism?

1.3   ORGANISATION OF THE THESIS

The core of the study is an analysis of methods of turn construction employed by each agrammatic individual in an everyday interactive setting with a conversational partner who is talked to on a frequent basis. The analysis proceeds via the identification of turn construction formats that recur in the sampled conversation. In addition, an analysis is undertaken of language samples elicited via six single word-, sentence- and narrative-level tests of spoken output that are currently in use in UK speech and language therapy (SLT) clinics, with the aim of producing the type of clinical profile of grammatical skill and impairment that would be used as a basis for SLT intervention. Finally, test data and conversation are compared, with the discussion structured around key similarities and differences between the two data sets.

Chapter 2, Agrammatism, gives an overview of the nature of agrammatism, explores how it is commonly assessed, and reviews the four theoretical approaches that are discernible, broadly speaking, in the current literature on agrammatism. The chapter concludes with a discussion of key issues that arise from the review: (i) decontextualised language samples; (ii) analysis via reference to a standard grammar; and (iii) skills learned in sentence processing therapy often fail to generalise to conversational language use.

Chapter 3, Conversation Analysis, aims to (i) outline key methodological aspects of CA – sequence, turn and repair organisation – with particular emphasis on the resource of grammar, and (ii) review the literature with respect to existing studies that have applied CA to the investigation of (a) aphasia, and (b) language testing. The review of aphasia begins with an overview of investigations to date, and moves on to consider CA perspectives on aphasic grammar. The chapter summary highlights CA's apparent power as a tool for the exploration of agrammatism.

Chapter 4, Participants and procedures, gives details of the two conversational partnerships whose conversation data is analysed, as well as background information on the individual with aphasia, including details of onset, a summary of aphasic impairments and a brief history of SLT intervention. This is followed by an overview of the procedures for recruitment and consent, data collection and transcription, and a review of the analytic process.

Chapters 5 and 6 present the analysis for the first conversational partnership, Connie and Jane. Chapter 5, Turn construction formats in Connie's conversation with Jane, describes novel turn construction formats, sequentially grammatical turns and problems with turn construction. Findings are summarised in the final section of the chapter. Chapter 6, Analysis of Connie's test data and comparison with conversation, presents an analysis of performance on word-, sentence- and narrative-level tests, followed by a comparison of test data and conversation, highlighting key similarities and differences. The chapter closes with a summary.

Chapters 7 and 8 present the analysis for the second partnership, Roy and Di, organised in identical fashion. Chapter 7, Turn construction formats in Roy's conversation with Di, presents novel turn construction formats followed by discussion of Di's talk as a resource for turn construction. Findings are then summarised. Chapter 8, Analysis of Roy's test data and comparison with conversation, presents an analysis of performance on word-, sentence- and narrative-level tests. This is followed by a

comparison of test data and conversation, which highlights key similarities and differences. The chapter ends with a summary.

Chapter 9, Discussion and clinical implications, begins with a review of the major findings of the study, which are that (i) talking in turns shapes the characteristics of aphasic grammar, (ii) aphasic individuals adapt to test situations, and that (iii) the relationship between conversational and test grammar is not straightforward. Each section of the review highlights inter-subject comparisons and contrasts for both conversational and elicited grammar. Finally, the discussion turns to implications for aphasiology, a review of the methodology, limitations of the current study and suggestions for future research.

2 Agrammatism

"One of the most invisible and devastating consequences of basing our understanding...on testing situations is that, in them, ...folks get to be little else *but* aphasics, Downs, or Brocas. They become mere "language users,"...and ones with problems in that regard, rather than actors with things to do, lives to live, things to give and to request and to tell and to promise, memories to share and call upon in getting their interactional business done, with language among the resources with which to do those things." (Schegloff, 2003: p. 44)

2.1   INTRODUCTION

This chapter aims to present an overview of the clinical characteristics of agrammatism, and review methods of assessment commonly employed in clinical practice in the UK. Current theoretical approaches to agrammatism are reviewed in terms of methodology, with influential assessment tools and pertinent intervention studies also outlined. The review aims to highlight the widespread use of a decontextualised approach to both assessment and analysis, and the resulting lack of knowledge about the nature of interactional grammar used in everyday talk by people with aphasia.

2.2   A CLINICAL PICTURE OF AGRAMMATISM

The condition of aphasia constitutes loss or impairment of language function in people with previously normal language abilities, acquired as a result of brain damage. Each year, in England and Wales alone, over 130,000 people have a first stroke. Approximately one third are left with permanent disability, including aphasia.[1] Most people with aphasia experience some level of impairment in all areas of language – auditory comprehension, reading comprehension, spoken language production, writing – but the severity of the difficulty can vary enormously between areas, and across individuals.

Agrammatism, a particular subtype of aphasia, is characterised by grammatical

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[1] Figures from the Stroke Association website (www.stroke.org.uk), 30.03.05.

impairment, and associated with non-fluent, Broca's aphasia. The German neurologist Arnold Pick was the first to publish a work devoted exclusively to agrammatism, in 1913 (a translated excerpt can be found in Friederici, 1994: pp. 261-267). To date, a substantial volume of publications has attempted to describe and to explain the phenomenon, an endeavour that has resulted in much methodological and theoretical controversy. For an overview of contemporary debates see Grodzinsky (1993) and Fromkin (1995). Despite the differing opinions, aphasiologists seem to agree that the defining criterion for agrammatism is the disruption of the grammar of *spoken* language. Indeed, as Kean (1995) points out, traditionally, agrammatism was viewed as a disorder restricted to spoken language production. More recent research has demonstrated that, for many speakers with agrammatism, *comprehension* of grammar is also affected, and some aphasiologists have concluded therefore that agrammatism is a central syntactic deficit (see for example, Caramazza and Zurif, 1976; Schwartz, Linebarger and Saffran, 1985; Grodzinsky, 1990). As the focus of the current study is spoken language, the issue of whether agrammatism affects both production and comprehension will not be pursued. Henceforth, the terms 'agrammatism' and 'agrammatic production difficulties' will be used synonymously.

Agrammatic production difficulties cited recurrently in the aphasiological literature include the omission of grammatical morphemes (such as auxiliary verbs, prepositions, personal pronouns and determiners), and the reduced complexity of syntactic structures (Menn et al, 1995; Schwartz, Fink and Saffran, 1995). The following extract from a speaker's personal narrative demonstrates such difficulties:

"My uh mother died...uh...me...uh...fi'teen. Uh, oh, I guess six month...my mother pass away. An' uh...an'en...uh...ah...seventeen...seventeen...go uh High School. An' uh...Christmas...well, uh, I uh...Pitt'burgh." (Goodglass, 1976: p. 239)

In addition, individuals with agrammatism may also have problems with lexical verb retrieval (Berndt, Mitchum, Haendiges and Sandson, 1997; Edwards, 2000). Commonly, the *–ing* ending is over-used (Howard, 1985; Lapointe, 1985; Menn et al, 1995), and it is often unclear whether the resulting lexical item is a verb or a nominalised form (Dipper, 1999).

Problems with word order are also commonly cited in the literature (Saffran, Schwartz and Marin, 1980a; Jones, 1984; Menn et al, 1995). For example, here is a speaker attempting to describe a picture of a girl giving flowers to her teacher:

"Girl...wants to...flowers...flowers and wants to...the woman...wants to...the girls wants to...the flowers and the woman" (Saffran, Schwartz and Marin, 1980b: p. 234)

In some cases, individuals are said to produce little more than a series of nouns, with virtually no verbs or morphology of any kind.

It is now recognised that speakers with agrammatism can have very different profiles with respect to the production deficits outlined above (see Berndt, 1998, for a discussion). Concern about such issues of variability and heterogeneity, and resulting implications for the validity of agrammatism as a unitary concept, have been hotly debated by Badecker and Caramazza (1985); Caplan (1987; 1995) and Kean (1995), amongst others. In addition, it has been found that the performance of an individual can vary markedly between language sampling dates and across tasks (Berndt, Haendiges, Mitchum and Sandson, 1997; Hofstede and Kolk, 1994; Kolk and Heeschen, 1992). Furthermore, Menn and Obler (1990) and Menn et al (1995) have detailed the considerable variation of agrammatic characteristics across languages. As a consequence of the complexity of the condition, many researchers now undertake a more complete description of an individual's particular impairments, rather than assuming they must exist because output has been labelled 'agrammatic'. At this point, it is useful to consider how agrammatism is assessed.

2.3   THE ASSESSMENT OF AGRAMMATISM

The assessment of agrammatic production difficulties involves two methods of data collection: (i) the sampling of spontaneous speech, and (ii) testing using tasks which tap specific grammatical competencies. Each will be discussed in turn.[2]

2.3.1   spontaneous speech sampling

Historical and current methods of investigating agrammatism place the spontaneous speech sample at the heart of the assessment process. The spontaneous speech sample underpins both theoretically and clinically motivated investigation by providing a picture of the deficit, which can be used additionally as a basis for the development or selection of specific testing procedures designed to further probe the areas of difficulty that are revealed. Heeschen (1985) makes explicit the premise on which this paradigm is based:

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[2] For a comprehensive review of the assessment of both production and comprehension difficulties, and a summary of a range of therapeutic approaches, see Marshall (2002).

"Most researchers believe that the patients' spontaneous speech shows us most clearly and unambiguously their deficits – spontaneous speech is considered as a sort of open window into the disturbed machinery…Underlying such a view seems to be the firm conviction that all that is deviant from normal in the patients' spontaneous behaviour is the direct consequence of or – almost by definition – identical to their true and genuine deficit." (1985: p. 208)

In addition to illuminating the deficit, spontaneous speech is considered important because, ultimately, clinical intervention aims to ameliorate the difficulties encountered with the expression of needs, opinions and experiences in normal, everyday life (Byng and Lesser, 1993). Spontaneous speech is the vehicle through which people express such basic human preoccupations. See Prins and Bastiaanse (2004) for a comprehensive review of current methods for analysing the spontaneous speech of speakers with all types of aphasia.

The majority of clinicians and researchers elicit a spontaneous speech sample by deploying one or more of the following procedures: picture description (of a single event or a composite of events); personal narrative; story telling; dialogue with a professional on a pre-ordained topic. A less commonly used method involves informal chat with a professional, where topic is not set but arises from the interaction. Examples of procedures in current use are shown in Table I, over:

procedure	task/materials	publication/source
picture description	Cookie Theft (from Boston Diagnostic Aphasia Examination, BDAE)	Goodglass and Kaplan (1972; 1983) Goodglass, Kaplan and Barresi (2001)
	Western Aphasia Battery picture	Kertesz (1982)
personal narrative	'what happened when you had your stroke?'	Goodglass and Kaplan (1972; 1983); Penn (1988); Menn and Obler (1990); Kolk and Heeschen (1992); Menn et al (1995); Goodglass et al (2001)
	'what did you do at the weekend?'	Edwards (2000)
procedural narrative	how to change a tyre/make a cup of tea	Penn (1988)
story telling	Cinderella story	Byng (1988); Saffran, Berndt and Schwartz (1989); Berndt, Wayland, Rochon, Saffran and Schwartz (2000)
	Red Riding Hood story	Menn and Obler (1990); Menn et al (1995)
	Aesop's fables cartoon strip	Goodglass et al (2001)
dialogue with a professional on set topic(s)	pre-set topics, commonly 'occupation', 'illness', 'interests', 'family', 'holidays'	Goodglass and Kaplan (1972; 1983); Penn and Behrmann (1986); Kolk and Heeschen (1992); Edwards, Garman and Knott (1993); Goodglass et al (2001)
informal chat with a professional	no pre-set topics	Kolk and Heeschen (1992); Bookless and Mortley (1996)

Table I. An overview of current procedures and associated tasks for eliciting a spontaneous speech sample from a speaker with aphasia.

2.3.2   tests of specific grammatical production ability

Tests of this type isolate a specific grammatical competency, rather than focusing on spontaneous speech. They tend to target issues such as (i) verb access, (ii) sentence structure, for example passives, and (iii) argument structure and thematic role assignment. Examples of published tests in current use in UK clinics that cover such areas are: Object and Action Naming Battery (Druks and Masterson, 2000); Thematic Roles in Production (TRIP, Whitworth, 1996); Verb and Sentence Test (VAST, Bastiaanse, Edwards and Rispens, 2002).

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The approach to data analysis varies according to which theoretical stance is taken towards the deficit. Current theoretical approaches to the analysis and interpretation of agrammatic production data will now be reviewed.

2.4 THEORETICAL APPROACHES TO AGRAMMATISM

The study of language and its disorders has, since its inception, fallen within the scope of a wide number of academic disciplines, including linguistics, psychology, neurology and philosophy (Benson and Ardila, 1996). As a direct result, attempts to characterise agrammatism have been driven by a number of theoretical approaches to language function and breakdown. Broadly speaking, there are four current approaches to the study of aphasia that have had a discernible influence on the clinical assessment and management of individuals with agrammatism. Each is outlined below.

2.4.1 a syndromic approach

A syndromic approach has popularised the categorisation of aphasia by identification of clusters of symptoms, and is encapsulated within the influential assessment procedure developed by Harold Goodglass and Edith Kaplan – the Boston Diagnostic Aphasia Examination (BDAE, Goodglass and Kaplan, 1972; 1983). A third edition has recently been published by Goodglass et al (2001). With respect to grammar, the BDAE involves the rating of several spontaneous speech samples on features derived from broad linguistic notions: *phrase length* (longest uninterrupted run of words); *grammatical form* (variety of grammatical constructions, and in the third edition, use of grammatical morphemes); *paraphasia in running speech* (level of morphological substitutions in otherwise fluent speech with a range of grammatical constructions); and in the third edition, *word finding relative to fluency* (relative prominence of word finding difficulty). According to the authors, these features permit the clinician to distinguish between agrammatism and a second grammatical disturbance called 'paragrammatism', which is described as speech of near-normal grammatical form with most morphological elements present but displaying "unsystematic substitutions...of both grammatical morphemes and lexical words...and tangled grammatical organization." (Goodglass and Kaplan, 1983: p. 7).[3] Ratings for grammatical features

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[3] Butterworth and Howard (1987) distinguish it from agrammatism in the following way: "paragrammatism presents confused and erroneous syntax and morphology instead of an absence of grammatical structure, omission of grammatical particles and 'telegraphic' style in speech." (1987: p. 2).

are combined with those for word finding, repetition and comprehension (based on the scores of specific BDAE sub-tests) to obtain a profile of speech characteristics which can be compared with generic profiles for the major aphasic syndromes, as drawn up by the authors: Broca's; Wernicke's; Anomic; Conduction; Global; Transcortical Sensory; Transcortical Motor. Agrammatism is considered a feature of Broca's aphasia, paragrammatism of Wernicke's aphasia. Thus, a diagnosis of agrammatism is made by matching the cluster of symptoms revealed by the test to the profile for the syndrome of Broca's aphasia. In the first and second editions of the test, no analysis was undertaken of the specific *qualitative* grammatical patterns of a speaker's output, although further characterisation was achieved by applying the descriptive label 'telegraphic speech', defined as output consisting of simple sentences with persisting omission of elements such as articles, auxiliary verbs and prepositions (Goodglass, 1993: p. 106). The third edition includes a 'discourse analysis', which involves coding utterances in terms of *clauses, subclausal utterances, multiclausal utterances, agrammatic deletions* and *empty utterances* (stereotyped phrases). In addition, a *complexity index* (ratio of clauses to total utterances) is derived, and for some of the data, an *agrammatism index* (ratio of grammatical omissions to total utterances) is calculated.

The BDAE procedure elicits a spontaneous speech sample via personal narrative, dialogue on a set topic and composite picture description, using the Cookie Theft picture card. All samples are combined for the purposes of rating features of speech. The third edition contains an option to extend the speech sample by using four Aesop's fables cartoon strips in a story re-telling task. The other influential assessment based on a syndromic approach, the Western Aphasia Battery (WAB, Kertesz, 1982), deploys the same mixture of personal narrative, dialogue on a set topic and composite picture description techniques.

Although the syndromic approach provides the SLT with a readily available method of diagnosis for agrammatism and access to specific treatment programmes, it does not take into account the heterogeneity of the condition. Thus, intervention programmes may do nothing to ameliorate the very specific grammatical impairments that affect particular individuals. In addition, the approach does not address the possibility that the same surface symptom may arise in two individuals as a result of two different underlying impairments. There is evidence to suggest that treatments may need to reflect underlying impairments in order to be effective (Byng, Kay, Edmundson and Scott, 1996).

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2.4.2 a linguistic approach

This approach came about as a result of the linguistic revolution in aphasiology, fuelled by the work of Jackobson in the 1950s and 1960s, and Chomsky in the 1970s and 1980s. It aims to profile sentence structure in the output of individuals who are agrammatic, using linguistic concepts such as the clause, the phrase, and the single word. Data is treated as a surface manifestation of the underlying damaged grammatical system, and it is used to identify the *un*damaged system, or 'language competence'.

Linguistic approaches tend to exclude or isolate from the analysis items that are deemed to represent 'noise' in the data, since it is the view of many linguists that this obscures the object of interest – propositional speech. Discarded items include social phrases such as greetings, formulaic language such as *I don't know*, discourse markers such as *well* and *then*, reported speech, and fillers such as *um* and *er*. Items isolated (though sometimes counted and analysed separately) include incomplete, repaired and unintelligible utterances. Fundamental to the analysis and interpretation process is the concept of a standard grammar which defines the rules governing the grammatical arrangement of words and morphemes into 'well formed' sentences for a particular language. This acts as a benchmark against which the agrammatic speaker's language is compared.

Examples of clinical tools based on a linguistic approach and used in UK clinics to assess agrammatism include Garman and Edwards' (1995) extension of the Language Assessment, Remediation and Screening Procedure (LARSP, developed by Crystal, Fletcher and Garman, 1989) and the Quantitative Production Analysis (QPA, Saffran et al, 1989; Berndt et al, 2000). Each presents a systematic method for the collection, analysis and interpretation of a spontaneous speech sample. The LARSP framework, based on the grammar of Quirk, Greenbaum, Leech and Svartvik (1972), classifies output by way of its structural qualities, according importance to phrase structure as well as clause structure, in an attempt to acknowledge that informal, naturalistic speech does not consist merely of sentences. Although LARSP was designed as a tool for the analysis of child language, the authors provided an illustrative case study of its application to aphasic spoken output. Subsequently, Penn and Behrmann (1986) took it up as a method in their study of 38 aphasic individuals. Recent adaptations to the procedure (detailed in Edwards, Garman and Knott, 1992; Edwards et al, 1993 and Garman and Edwards, 1995) have increased its ability to categorise aphasic data in a meaningful way, and studies have illustrated its potential to reveal both theoretically

and clinically important aspects of aphasia (Edwards, 1995a; Edwards, 1998; Edwards, 2000).

The QPA differs from LARSP in that it is a quantitative approach, which yields morphological and structural measures. Morphological measures include *proportion of words that are closed class, noun/pronoun ratio* and *frequency of verb inflection.* Structural measures include *proportion of words in sentences, proportion of sentences that are well-formed* and an *embedding index.* Saffran et al (1989) demonstrated that the procedure could distinguish the output of speakers with agrammatic aphasia from those with non-fluent non-agrammatic aphasia and from non-language disordered control subjects. The QPA has since been used, along with a more detailed characterisation of argument structure, to measure change after sentence processing therapy (Byng, 1988; Byng, Nickels and Black, 1994), and also to investigate fluent, Wernicke's aphasia (Edwards, 1995b; Bird and Franklin, 1995). A recent publication by the originators of the QPA presents additional data and explores inter-rater and test-retest reliability (Rochon, Saffran, Berndt and Schwartz, 2000).

Another influential linguistic approach uses Chomsky's Government and Binding (GB) theory to explain the symptoms of agrammatism (Grodzinsky, 1990; Thompson and Shapiro, 1995; Thompson, Shapiro, Tait, Jacobs and Schneider, 1996; Thompson, 1998; Thompson, Shapiro, Kiran and Sobecks, 2003). This approach argues that people with agrammatism cannot produce (or understand) sentences in which elements have been moved out of their canonical subject-verb-object order, because of difficulty processing the complex sentences produced by such movement – wh-question formats, passives and object cleft constructions. Such structures are complex because a constituent moves position whilst retaining its original thematic role and in the process leaves a 'trace' behind in its original position. For example, production of a passive from the canonical structure *Bill kissed Mary* involves the constituent *Mary* undergoing movement, leaving a trace in its place: *Mary$_i$ was kissed$_{trace\ i}$ by Bill,* whilst retaining its role as the patient of the verb. The application of GB theory has led to treatments that aim to restore skills by training syntactically complex sentences in order to effect generalisation to less complex sentences which are linguistically related (Thompson et al, 2003). A method of analysing spontaneous speech samples is detailed in Thompson et al (1996) which permits the analyst to explore the effects of movement on output, in addition to verb argument structure.

2.4.3 a psycholinguistic approach

The aim of a psycholinguistic approach is to assess in depth each individual in order to identify the processing impairments responsible for producing his or her particular pattern of symptoms. According to Edwards (1995a), there is considerable overlap of interest and knowledge between linguistic and psycholinguistic approaches to aphasia, but whereas a linguistic approach preoccupies itself with describing the system, a psycholinguistic approach is more focused on how the system *operates*. This focus is achieved by reference to processing models, most often at the level of the single word (see Ellis and Young, 1988). In the case of agrammatism, Garrett's model of sentence production (Garrett, 1982) has been used extensively to explore sentence processing deficits.

The psycholinguistic approach to aphasia is highly influential because it has provided clinicians and researchers alike with a collection of published tests, Psycholinguistic Assessments of Language Processing in Aphasia (PALPA, Kay, Lesser and Coltheart, 1992), designed to assess performance with reference to Ellis and Young's (1988) model. In terms of assessing agrammatism, PALPA provides specific tests of sentence comprehension, but analysis of output is not addressed. Such psycholinguistic investigations purposefully strip away language context, in an attempt to prevent the person with aphasia from using non-linguistic strategies to complete a task. Investigations of sentence comprehension, therefore, will often reveal deficits in a client who possesses otherwise intact comprehension in a conversational context. Having uncovered such test-specific problems, it is the clinician's place to judge whether communication is hindered by them, and thus whether they are candidates for intervention, or whether their effect on the client's everyday life is negligible. The Sentence Processing Resource Pack (Marshall, Black, Byng, Chiat and Pring, 1999) contains two psycholinguistic assessments of agrammatism, and again these focus on comprehension. They are the Event Perception Test and the Reversible Sentence Comprehension Test. The Event Perception Test explores whether or not an individual can categorise an event by requiring two pictorial representations of the same verb to be matched in the presence of a distractor. The Reversible Sentences Test is a spoken (or written) sentence-to-picture matching task designed to assess an individual's ability to comprehend meaning relations that can be plausibly reversed, for example, *the queen splashes the nun*. One of the distractor pictures represents the reversal of the target (*the nun splashes the queen*) and another is a lexical distractor (*the nun touches the queen*).

Psycholinguistic analysis of agrammatic output has been undertaken by researchers such as Byng and Black. Byng (1988) outlined a method, described in detail in Byng and Black (1989), for analysing a spontaneous speech sample elicited via the Cinderella story telling, with the aim of generating hypotheses as to the level of processing breakdown with respect to predicate-argument structure. It explores whether individuals can realise predicate-argument structures, how many arguments and what types can be realised, and whether particular arguments are produced in the correct grammatical position.

Proponents of a psycholinguistic approach have long highlighted the importance of drawing from a combination of approaches to language in order to guide intervention. Lesser and Milroy (1993), for example, advocate combining the psycholinguistic with a pragmatic approach, particularly conversation analysis, as explored by Lesser and Algar (1995), Perkins (1995), and Lesser and Perkins (1999).

2.4.4 an adaptation approach

An adaptation approach to agrammatism has been most influential in the investigation of those languages it has explicitly addressed, namely Dutch and German. Kolk and Heeschen, the key proponents of 'adaptation theory', hypothesise that there exist two different types of agrammatic symptoms – *impairment* symptoms, which directly reflect the deficit, and *adaptation* symptoms, which reflect the behavioural changes made by the individual as a result of adapting to the impairment (Kolk and Heeschen, 1990). The underlying impairment which motivates adaptation is said to be one of delayed processing, a 'timing deficit' (Kolk, 1998), such that lexical items cannot be co-ordinated with their syntactic slots. Thus, adaptation theory is underpinned by an account based on a model of language processing.

Kolk and Heeschen view adaptation as a 'decision' made either consciously or semi-consciously by the person with agrammatism, and motivated by a positive outcome for communication, for example, the avoidance of grammatical errors. They believe that the characteristic output of Dutch- and German-speaking agrammatics results from the strategic (over)use of ellipsis; omissions and simplified structures are adaptation symptoms, not manifestations of the underlying deficit. They argue that such agrammatic output is in fact *grammatical*, because it conforms to the same grammatical constraints that apply to legitimate elliptical expressions in the Dutch and German languages. However, despite appearing grammatical, such elliptical utterances are

found not to conform to *pragmatic* constraints – they appear where the omission of elements is contextually *un*acceptable.

Another linked tenet of the theory is that, when adaptation has few pay-offs, i.e. in assessment tasks where certain grammatical demands *must* be met, ellipsis will occur less frequently (see Kolk and Heeschen, 1992), although it may not be completely eradicated. Thus, it is argued that tasks give a better picture of the underlying impairment than spontaneous speech (Hofstede and Kolk, 1994). The theory states that when a speaker is no longer adapting, or in other words, is trying to produce a grammatically complete sentence, symptoms of the underlying processing deficit will become visible. Kolk and Heeschen (1992) find such symptoms to be morphological *substitution* errors.

Kolk (1998) attempts to further explain what factors might motivate an agrammatic speaker to adapt. He does so by citing the 'interaction hypothesis' (p. 203) proposed by Heeschen and Kolk in a 1994 paper published in German, which states that the interactional nature of free conversation makes it more natural to use ellipsis, even when it is not warranted, because the listener is motivated to fill in things that a speaker leaves unspoken. Heeschen and Schegloff (1999; 2003) note the need to unpack the concept of adaptation to find out exactly what is involved, and how it is achieved. To this end, they analyse the everyday conversation of aphasic individuals and their peers (see section 3.5.2.1, page 55 for a review of these investigations).

Studies that take an adaptation approach sample a range of agrammatic output data, using tasks such as cloze procedure[4] and picture description. Spontaneous speech, which presents maximum opportunity to adapt, is collected via a procedure referred to as 'free conversation' (Kolk and Heeschen, 1996: p. 86). Sometimes this is described as informal conversation 'over coffee', and appears to be a chat between the aphasic speaker and the researcher with no pre-set topics. However, on other occasions, it is said to involve the person being prompted to talk about '…their illness or any other topic they wished to talk about for some period of time.' (Kolk and Heeschen, 1992: p. 98), and thus seems more akin to the delivery of a personal narrative than an interaction. The data is analysed quantitatively, by counting morpheme errors (omissions and substitutions) and syntactic structure types. In order to count such things, utterances must undergo 'reconstruction', where a decision is made as to the identity of the grammatical target, so that the actual production can be compared to the 'correct'

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[4] Where "the subject has to fill in a grammatical morpheme missing in the presented sentence" (Kolk and Heeschen, 1990: p. 223).

version of the sentence (see Kolk and Heeschen, 1992: pp. 99-100 for an overview of this process). In addition, the percentage of utterances exhibiting a feature of normal ellipsis (in Dutch or German) is calculated. Features include *sentence-final position of the verb, omission of grammatical subject* etc.

Goodglass, Christiansen and Gallagher (1993) set out to compare American English agrammatic speakers' performances on highly constrained production tasks with that of 'free narrative' picture description and cartoon-strip story telling tasks, in order to study the claims of adaptation theory. Specifically, they wished to explore whether spontaneous speech would reveal a high level of adaptation symptoms, i.e. morphological *omissions*, whilst constrained tasks would uncover impairment symptoms, characterised by Kolk and Heeschen (1992) as *substitution* errors. Results reveal very similar percentages of morphological omission errors between the structured tests and the spontaneous speech samples, and thus fail to support the predictions of adaptation theory.

Hesketh and Bishop (1996) conducted a study of adaptation theory with British English-speaking people with a range of different aphasic difficulties, including agrammatism. Although they used different procedures and measures to Kolk and Heeschen (1992), on tasks that should have left little room for adaptation, such as cloze procedure, the results show that the agrammatic speakers continue to omit elements as they do in freer tasks and in spontaneous speech. Despite methodological problems highlighted by Kolk and Heeschen (1996), Hesketh and Bishop's results seem to concur with those of Goodglass et al (1993). Hesketh and Bishop conclude that it is not clear precisely which factors influence, and thus can be manipulated to induce, adaptation. Berndt (1998) suggests that differences between the workings of Dutch/German and English ellipsis may exist, resulting in true cross-language differences in adaptation, and thus accounting for the lack of replication with English-speaking aphasics.

Salis and Edwards (2004) succeeded in exploring the theory for English aphasic speakers using experimental procedures identical to those of Kolk and Heeschen. Their findings reveal elliptical utterances in interview samples that are qualitatively similar to those observed by Kolk and Heeschen (1992), however frequency of occurrence is much less than in the German and Dutch data. In addition, Salis and Edwards note that, in a constrained picture description task, reductions in omissions are visible, supporting predictions regarding task variation. They conclude that cross-language comparisons can only yield useful information about adaptation theory if the same methodology is used.

Adaptation theory has not directly influenced any approaches to intervention for English speakers, but Kolk (1998; 2001) reports on 'syntax simplification therapy' carried out in German. Specifically, he outlines a study designed to teach two speakers with non-fluent but *non*-agrammatic aphasia to simplify their utterance forms to elliptical expressions. Therapy resulted in a substantial and significant increase in communicative effectiveness for both speakers, as well as a marked change in the form of their output, as measured on a clinical test of everyday language, the ANELT (Blomert, Kean, Koster and Schokker, 1994). In addition, Kolk reports that a small positive effect was also noted during free conversation. Kolk (1998) makes the point that Reduced Syntax Therapy (REST), developed and published in Germany by Schlenck, Schlenck and Springer (1995), takes the same approach to intervention. This again involves training speakers to use simplified forms based around an uninflected main verb and its complements, with no morphological endings or auxiliary verbs. Springer, Huber, Schlenck and Schlenck (2000) give an English-language overview of the programme, which they say "deliberately encourages rather than prevents the production of telegraphic style" (2000: p. 288). They cite the following translated examples of target structures: *drink(ing) coffee*; *gone to Vienna*; *Katy broken leg*; *yesterday got flowers*; *Lisa written letter to Leo*, and at the most complex level: *yesterday granny station, thief taken bag*, where the additional manipulation of prosody is required to convey the full meaning. REST represents an interesting prospect for sentence production therapy which, to the author's knowledge, has not been attempted in English.

2.5   DISCUSSION

The following themes arising from the review will now be critically discussed: decontextualised language samples, analysis via reference to a standard grammar, and lack of generalisation of skills learned in therapy to conversational language use.

2.5.1   decontextualised language samples

The assessment of agrammatism, whether via elicitation of spontaneous speech or tests of specific grammatical competency, targets *decontextualised* language, which is isolated from the interactional context in and for which language is habitually produced, that of real-life, everyday talk about needs, opinions and experiences. Byng and Lesser

(1993), in their review of therapy for sentence processing deficits, express concern about:

"...the limited way in which spontaneous speech is usually sampled; the tasks through which speech samples are obtained nearly always involve the use of descriptive language, in narrative or picture description tasks, whereas someone with aphasia may not be as concerned about producing descriptive language as about the conversational use of language, for example." (1993: p. 334)

It seems that an over-emphasis on decontextualised language is potentially problematic for two inter-linked reasons. The first is that the rationale for clinical intervention is improvement in conversational language use. Given this, the lack of direct exploration of conversational language use seems hard to justify. The second reason is linked to the endeavour to uncover the nature of agrammatism. There is no doubt that the investigation of decontextualised descriptive language has revealed a wealth of valuable information about the grammatical competencies of speakers with aphasia, but somewhere along the line of enquiry an assumption has been made that profiles obtained in this way have the power to predict and explain the grammatical features of everyday language use. This assumption endures despite a growing awareness of and concern about the variation in agrammatic symptoms that can be displayed by the same individual on different tasks (Berndt et al, 1997; Hofstede and Kolk, 1994; Kolk and Heeschen, 1992). If there can be variation within the set of decontextualised tasks, it is plausible to expect that there might also be variation between performance on tasks and in interaction. Moreover, the environments of language testing and conversation vary fundamentally with respect to the on-line/off-line distinction, and this itself suggests the possibility that performance may vary accordingly. Thus, off-line tasks allocate considerable time in which to produce a monologue, with the aim of maximising the length of the aphasic person's turn (Heeschen and Schegloff, 2003; Schegloff, 2003). It is the tester's role merely to act as a passive recipient of the language sample, perhaps nodding and giving minimal encouragement, behaviour that Heeschen and Schegloff (2003) describe as an extreme case of the 'perverse passive' (Jefferson, 1984). In exceptional circumstances, prompting may be offered if the speaker is having difficulty but only if the test permits. Having a conversation, on the other hand, entails the on-line management of turn taking with one or more individuals who are also motivated to contribute to the talk. Turn taking has been shown to have an impact on the grammatical form of normal, non-language disordered talk (Sacks et al, 1974).

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A study by Wilkinson (1995a) presents direct evidence that task-based aphasic grammar does not necessarily mirror the grammar of conversation. Wilkinson's CA investigation reveals how a speaker with agrammatism is able to produce grammatical structures of the subject-verb-object type when completing a picture description task, but that utterances in conversation rarely contain verbs, unless they are part of fixed units, such as *I mean* or *I think*. The discernible mismatch between the subject's elicited and interactional grammar, and the impact of the conversational difficulty with verbs on the interaction, leads Wilkinson to suggest that it is not sufficient to investigate aphasic grammatical abilities in the constrained language environment of picture description. An in-depth study of the conversational grammar of the same subject by Bookless and Mortley (1996) strengthens this argument. Their investigation reveals that the subject's conversational output consists of many 'novel structures' (Bookless and Mortley, 1996; p. 111) such as those which utilise a noun to call attention to a concept and then present a linked comment, for example 'flowers much pretty or something' (p. 113), as well as the frequently repeated set phrases, noted by Wilkinson because of their tendency to contain verb forms. Bookless and Mortley conclude that there are *structures* to be found in this speaker's talk, although their form does not always adhere to the rules of a sentence grammar. This clearly supports the idea that conversational grammar can appear quite different from decontextualised grammar. Interestingly, the authors question the extent to which such novel structures can be considered 'deviant', citing the Lund corpus of normal conversation (Svartvik and Quirk, 1980) that has helped to destroy the myth that educated speakers always use fully grammatical sentences that are built in a combinatory, or 'productive' fashion from elements of syntax, semantics, morphology and phonology (see also discussions in Perkins and Howard, 1995; Wray and Perkins, 2000).

In contrast to most other approaches, studies associated with adaptation theory do sample interactional as well as decontextualised language, via informal chat with a researcher (see, for example, Hofstede and Kolk, 1994; Kolk and Heeschen, 1992). This has led Kolk, Heeschen and colleagues to propose that German and Dutch conversational language differs from task-based language, since it contains considerably more elliptical structures, and that the use of ellipsis is an adaptation strategy, which is employed to avoid grammatical error. Adaptation theory is based on an intuitively appealing idea, since it acknowledges the importance of interaction, and discusses the possibility of it providing an explanation for the variable nature of spoken output (see, for example, Kolk, 1998). However, despite this, the majority of the data is analysed

using concepts developed from the study of decontextualised grammar, so the benchmark is still adherence to standard grammatical rules (exceptions are the analyses of Heeschen and Schegloff, 1999; 2003). Thus, it is not easy to see how conversational structures such as 'flowers much pretty or something', revealed by the work of Bookless and Mortley (1996), could be accounted for by adaptation theory.

In addition, the method of data collection for the adaptation approach is not without its problems. Despite involving an informal chat, the sampling method has an agenda – the collection of a language sample – along with clearly defined roles for the participants – 'professional' and 'patient' – which may affect the form of the data, since the resulting interaction is *institutional* in nature (once again, Heeschen and Schegloff, 1999; 2003, provide the exception). There is a substantial body of research in the field of CA which demonstrates that formal types of institutional interaction, for example in courts of law and interviews, and non-formal types, such as GP consultations and social work encounters, have markedly different features to mundane conversation (see, for example, Drew and Heritage, 1992). Particular impacts on the form of language include an asymmetry with respect to who asks questions and sets topics – overwhelmingly the professional, not the patient (Maynard, 1991; ten Have, 1991) – and who talks. Hutchby and Wooffitt (1998) note that the unstructured interview format involves an interviewee in delivering a monologue in response to a question, with the result that the exchange is not particularly interactional, and the length and structural complexity of the interviewee's utterances is different from that of normal conversation. It seems unlikely that an informal chat between a researcher and an agrammatic patient will be immune to such institutional effects. Furthermore, such effects may impact on the very thing that is being studied; the grammatical form of the aphasic speaker's language.

2.5.2   analysis via reference to a standard grammar

The issue of decontextualised language is also relevant when considering the *analysis* of agrammatic speech samples. Without exception, the approaches reviewed in this chapter involve analyses that invoke comparisons with a baseline standard grammar and its processes, conceptualised in terms of the phrase, the clause and the sentence; units that have themselves been derived from the study of decontextualised language. Despite the fact that it is widely recognised that people often do not speak in grammatical sentences, most contemporary linguistic enquiry into grammar seeks to uncover a system which has the abstract, well-formed sentence at its heart. Within this approach, agrammatism is viewed as a resource for the exploration of how language is

organised in the brain. The treatment of grammar as a brain-based phenomenon results in the everyday conversational grammar of individuals being viewed as sentential form compromised by factors extraneous to the (psycho)linguistic system. Schegloff, Ochs and Thompson (1996) say of a decontextualised approach:

> "...proceeding in this fashion is the product of largely invisible premises underlying much linguistic and psycholinguistic work at present – in which the primary organization of language is situated at the syntactic, semantic, lexical, and phonological levels, with only the surviving, unordered "details" – the "residual variation" – being referred to pragmatic or sociolinguistic or interactional "factors". But given the thoroughgoing situatedness of language's observable engagement with the world, and its role as an instrument in the effecting of real worldly projects, does it not make more sense, is it not theoretically more plausible, to suppose that interactional and pragmatic organizations play a *primary and formative role*, rather than a residual one, in the organization of conduct, including talk, and that grammar and syntax are, if not *sub*ordinate, then not more than *co*-ordinate with them..."
> (1996: pp. 25-26; italics in original)

One consequence of a decontextualised approach is that current theoretical accounts of aphasic grammar fail to reflect the primary use of language as a means of interaction. As a result, little is known about the real nature of interactional grammar used in everyday talk by people with aphasia. Although this situation may be justifiable if research intends to contribute to our understanding of the architecture of a brain-based language system, it is harder to defend if our aim is to undertake clinical intervention. Few have questioned the prevailing belief in clinical aphasiology that the investigation of decontextualised language using decontextualised units of analysis reveals a valid picture of the grammar of conversational language. Evidence to the contrary does exist, although currently there is little of it (Wilkinson, 1995a; Bookless and Mortley, 1996; Lind, 2002a; Beeke, Wilkinson and Maxim, 2003b).

2.5.3 sentence processing therapy effects often fail to generalise to conversational language

Reviews of treatment approaches for sentence processing deficits reveal a generally positive picture in terms of degree of change, whilst acknowledging that generalisation of treatment effects can tend to be limited to target structures (Byng and Lesser, 1993; Marshall, 2002). Byng and Lesser (1993), in their review of 19 sentence-level therapy studies, express their surprise that so little improvement in spontaneous speech occurs as a result of treatments carried out. They attribute this to several factors, not least of which is the inadequacy of methods for measuring changes in production, such that:

"Measures are usually confined to numbers of words produced or to the production of grammatically correct specific structures. Little attention is paid to changes in the quality of either the content or the structure of the utterances produced. Moreover, spontaneous language is nearly always measured in relation to descriptive tasks, and yet descriptive language is not necessarily a part of everyday communication." (1993: p. 357-358)

The authors note that those studies which did effect more extensive change made a point of relating therapy procedures and stimuli to meaningful contexts for the aphasic speakers. They conclude by emphasising the need for a "different way of approaching the remediation of these problems...to meet the needs of the patients." (1993: p. 359).

It is also possible that intervention fails to generalise to interactional grammar because there is little call for the types of structures trained in therapy to be used in conversational contexts. Given the reliance on decontextualised language as a basis for planning and evaluating therapy for sentence processing difficulties, it is plausible to suggest that errors and difficulties are being identified during testing that do not arise during conversation, or, if they do arise, are not problematic for either the speaker with aphasia or their partner in the interaction. If mutual understanding can be achieved despite the use of unconventional grammatical structures, as Bookless and Mortley's (1996) case study demonstrates, then perhaps a lack of motivation to change might explain the generalisation problem.

2.6   SUMMARY

This chapter has presented an overview of the clinical characteristics of agrammatism, and has reviewed methods of assessment commonly employed in clinical practice in the UK. A broad categorisation of theoretical approaches to agrammatism has been proposed, and each of the four approaches – syndromic, linguistic, psycholinguistic and adaptation – reviewed. Influential assessment tools have also been outlined. The review has highlighted the widespread use of a decontextualised approach to both assessment and analysis, and the resulting lack of knowledge about the nature of interactional grammar used in everyday talk by people with aphasia. It has also explored the possibility that this situation may contribute to the lack of generalisation that pervades therapies for sentence-level difficulties.

Clearly there is a need to investigate the grammar of the agrammatic speaker in everyday conversational interaction in the home environment with a family member or

friend, in order to begin to address some of these issues. This thesis aims to carry out such an investigation using *Conversation Analysis* (CA), a systematic method for exploring the organisation of talk-in-interaction. The next chapter will outline the key theory and methods of CA, particularly with respect to the analytical treatment of grammar, along with the findings of studies which have already applied CA to the investigation of aphasia and language testing.

3 Conversation Analysis

"Most aphasiologists assume – tacitly or explicitly – that performance data from brain damaged subjects can be used "as a window into the structure and organization of normal cognitive processes" (Caramazza, 1997: p. 137). If, however, this performance is the joint product of the brain-damaged subject and his or her concrete interactant in concrete circumstances at concrete occasions, then the "window" is somewhat "dirty", and perhaps quite opaque. ...we leave it to the reader to evaluate a cognitive aphasiology for which data from the *natural habitat* of our language-processing capacities – unimpaired or impaired – are uninteresting." (Heeschen and Schegloff, 2003: pp. 231-232; italics added)

3.1   INTRODUCTION

Conversation Analysis (CA) is a systematic procedure for the analysis of recorded, naturally occurring talk produced in everyday human interaction: *talk-in-interaction*. Although everyday conversation is by no means the only form of talk-in-interaction studied within the field, it is central to the analytical concern, since it is judged to be the 'base environment' (Heritage, 1984a: p. 240) for particular procedures and practices, which are found to be concentrated and specialised in other forms of talk-in-interaction, such as institutional talk. CA grew out of a particular sociological approach known as ethnomethodology, and originated in the pioneering works of Harvey Sacks and his collaborators, Emanuel Schegloff and Gail Jefferson. The principal aim is to discover how participants understand and respond to one another in their turns at talk, and how such turns are organised into sequences of interaction. The focus is on talk-in-interaction as an orderly accomplishment that is oriented to by the participants themselves. Thus "CA seeks to uncover the organization of talk not from any exterior, God's eye view, but from the perspective of how the participants display for one another their understanding of 'what is going on'." (Hutchby and Wooffitt, 1998: p. 15). An analysis begins with actual utterances in actual contexts, and is not constrained by prior theoretical assumptions; it is a bottom-up, data-driven approach. CA takes the view, from linguistics, that language is a structured system for the production of meaning, but it diverges from many branches of linguistics, in that it views language

primarily as a vehicle for communicative interaction, rather than as a discrete system for predication (Schegloff, 1996a).

The aims of this chapter are to (i) outline key methodological aspects of CA, with particular emphasis on the resource of grammar, and (ii) review the literature with respect to existing studies that have applied CA to the investigation of (a) aphasia, and (b) language testing.

3.2 SEQUENCE ORGANISATION

One of the main preoccupations of CA research is uncovering the ways in which utterances accomplish *actions*, by virtue of their design and placement within 'clumps' of talk-in-interaction (Schegloff, 1990: p. 51). This type of order in talk, where courses of action have some shape or trajectory to them, is referred to as 'sequence organisation'. The importance of sequence organisation is explained by Heritage:

> "the most prominent place at which the character of an action (A) is demonstrably appreciated, used and treated as the basis for some subsequent action (B) is *in that very subsequent action*...It is sequences and turns-within-sequences which are thus the primary units of analysis." (Heritage, 1984a: p. 245, italics in original)

Thus, a participant in talk designs a turn to 'do' an action to which subsequent talk will be oriented. This phenomenon, referred to as the 'sequential implicativeness' of a turn's talk (Schegloff and Sacks, 1973: p. 296, fn 6), motivates a participant to monitor for action in a current speaker's turn because that action may have implications for what action or actions should be done in the next turn. Sequential implicativeness has at its core what Sacks calls 'the relating power of adjacency' (Sacks, 1992: Vol II, Spring 1972, Lecture 4, p. 554), and the assumption, common to both speaker and hearer, that utterances positioned adjacent to each other are related, unless special techniques are used to indicate otherwise (Sacks, 1992: Vol II, Spring 1972, Lecture 4). Adjacency provides for the notion of 'tying techniques' (Sacks, 1992: Vol I, Fall 1967, lecture 11), involving terms that, in certain positions in an utterance, signal that the utterance is tied to some other utterance. Sacks gives as examples pronouns, pro-verbs such as *do* and *be*, conjunctions and discourse markers such as *well*, *then* and *now*.

Some turns-at-talk constitute a particularly powerful means of projecting a relevant next action to be accomplished by another speaker in next turn. The strength of the link between such current and next turns results in conventional pairings of actions such as greeting-return greeting, question-answer, invitation-response and request-

response. The properties of this particular type of conversational sequence, known as the 'adjacency pair' (Schegloff and Sacks 1973: p. 295), will be outlined below.

3.2.1 adjacency pairs and preference organisation

A basic unit of sequence organisation, the adjacency pair construction consists of two adjacent, *ordered* utterances, each produced by a different speaker. There is a recognisable difference between the first and the second part of the pair, and a specific first pair part requires a particular second part, or range of second parts in the case of actions such as inviting and requesting, where the paired action is likely to be either accepting or declining. Schegloff and Sacks (1973) formulated the following basic rule for adjacency pair operation:

> "given the recognizable production of a first pair part, on its first possible completion its speaker should stop and a next speaker should start and produce a second pair part from the pair type of which the first is recognizably a member." (1973: p. 296).

In practice, the parts of an adjacency pair do not necessarily need to be adjacent – there are insertion sequences that can come between them – however, it is a condition of the production of a first pair part that a second part becomes *relevant*, and remains so until it is produced. Participants in conversation orient to this 'conditional relevance' (Schegloff, 1968), using the adjacency pair mechanism to display to one another their understanding of the action that each utterance is aiming to accomplish. Thus, if a second pair part is made relevant yet withheld or delayed, the resulting non-appearance will be noted and inferences drawn. For example, if a greeting is not returned, the first greeter may infer that they are being snubbed. In the same vein, the noticeable absence of an answer to a question may lead the questioner to infer a problem of hearing or understanding has occurred, with the result that the question may be repeated or rephrased. The adjacency pair framework serves to demonstrate the key place that action occupies in talk-in-interaction, since any failure, perceived or real, to produce an expected second part can itself be interpreted as accomplishing an accountable action.

Another important aspect of adjacency pair organisation is that certain first pair parts make *alternative* actions relevant. For example, a request makes relevant an acceptance or refusal, and an assessment makes relevant an agreement or disagreement. Given this fact, such first pair parts can be designed to invite one of the two alternatives as the *preferred* next action. Turn design differences of this nature are described in terms of a 'preference organisation'. In practice, second part alternatives do not simply

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function as binary equivalents. In most cases, agreements and acceptances are 'preferred' action types, and disagreements and refusals are 'dispreferred' action types (Pomerantz, 1984). This is because a general 'preference for agreement' seems to operate in everyday interaction (Hutchby and Wooffitt, 1998: p. 46). As the authors explain:

> "The concept of preference…is not intended to refer to the psychological motives of individuals, but rather to structural features of the design of turns associated with particular activities, by which participants can draw conventionalized inferences about the kinds of action a turn is performing." (Hutchby and Wooffitt, 1998: pp. 43-44)

Schegloff (1988) makes the point that first pair parts such as questions can, by their very *construction*, prefer a *yes* or *no* response. For example, a question can be designed to end with a tag such as *isn't it* in order to increase the likelihood of the speaker receiving a positive response (Sacks, 1987). Second parts can also be designed to take account of preference. Second parts with a preferred status tend to get produced immediately upon completion of the first pair part (Heritage, 1984a). By contrast, second parts that have a dispreferred turn-shape are often delayed, and incorporate a variety of signals of dispreference, such as the markers *well* or *uh* (see Pomerantz, 1984), and accounts explicating the reasons for a dispreferred response. Preference organisation imposes constraints on the *inferences* that recipients of turns may make about a speaker's motivations (Hutchby and Wooffitt, 1998). As a result, a turn can be designed in such a way as to get a certain social action done. Preference is thus a powerful inferential device in talk-in-interaction.

3.2.2   mutual understanding and sequential context

Sequence organisation, most particularly the organisation of adjacency pairs and preference, has a fundamental significance for the question of how mutual understanding, or intersubjectivity, is accomplished and displayed by participants in talk-in-interaction. Sequence organisation permits a first speaker to use his or her action as a basis from which to interpret what a next speaker says, by considering the issue 'why that now?' (Schegloff and Sacks, 1973: p. 299). This concept links to the general analytic observation that any speaker's action is 'doubly contextual', in that it is both 'context-shaped' and 'context-renewing' (Heritage, 1984a: p. 242). Thus, a turn conveying an action is context-shaped in that it can only be fully understood by

reference to the immediately preceding turn and its actions, and it is context-renewing since it will itself form the immediate context for some next turn, and will thus contribute to the context in which that next turn will be understood. The contextualisation of utterances is something that hearers use as a resource for interpreting conversational contributions. As a result, speakers attend to 'recipient design' (Sacks et al, 1974) when building turns at talk, with each utterance produced in such a way that the recipient is able to understand how it relates to the prior turn and what implications it has for the following turn. Heritage explains:

> "because...displayed understandings arise as a kind of by-product or indirect
> outcome of the sequentially organized activities of the participants, the issue of
> 'understanding' *per se* is only rarely topicalized at the conversational 'surface'.
> Through this procedure the participants are thus released from the task of explicitly
> confirming and reconfirming their understandings of one another's
> actions...Moreover, because these understandings are publicly produced, they are
> available as a resource for social scientific analysis." (Heritage, 1984a: p. 259)

Thus, the phenomenon of sequential context underpins one of the key methodological principles of CA, which is that it is participant-driven, with the aim of describing and explicating how the participants themselves display their interpretations of each other's talk. Evidence of a speaker's understanding of prior turn is sought in the display of intersubjectivity in next turn position. Hutchby and Wooffitt (1998: p. 15) call this a 'next-turn proof procedure'.

3.3   TURN ORGANISATION

At the heart of CA is a concern with the sequential order of talk, specifically how turn taking is organised, how participants accomplish orderly turn taking, and what systematic resources they deploy to this end. The foundation study of turn taking in CA remains that published in 1974 by Sacks et al. According to this paper, the turn-taking system, which aims to achieve the feature 'one speaker talks at a time', with little gap or overlap, has two components, a 'turn construction' component and a 'turn allocation' component, with a set of rules, or practices, describing how turns are distributed between participants. The following section will outline this turn taking system. In particular, *grammatical* resources for turn organisation will be highlighted.

3.3.1 turn construction and turn taking

Since the publication of Sacks et al (1974), one major stream of research within CA has focused on describing the characteristics of the units out of which turns at talk are built, so-called 'turn construction units' (TCUs). TCUs are constructed out of units such as sentences, clauses, phrases or single words (Sacks et al, 1974). A key feature of the TCU is the property of 'projectability'. This permits a participant to project, during the production of a TCU, what type of unit is underway, and what it will take for that unit type to be completed. As a consequence it becomes possible for a participant to identify a possible 'transition relevance place' (TRP) at the boundary of a turn, a place where current speaker may stop, and next speaker begin. Projectability is crucial for orderly turn taking:

> "whatever the units employed for the construction [of talk], and whatever the theoretical language employed to describe them, they still have points of possible unit completion, points which are projectable before their occurrence. ...that is the better part of what the turn-taking system asks of the language materials from which its turns are fashioned" (Sacks et al, 1974: p. 720)

It is the projectability of a speaker's turn that permits a recipient to orient to potential places where he or she might move into speakership. In this way, turn construction influences turn exchange.

A second key feature of the TCU is 'progressivity', which arises out of the temporal character of talk-in-interaction, and can be defined as a "preference...for "next parts" of structured units...to come next" (Schegloff, 1979: p. 268, fn. 9). In practical terms, this property motivates the continuous, beat-by-beat progression of a TCU towards next possible completion with minimal disruption to the 'serial' and 'sequential' adjacency of words (see Lerner, 1996: pp. 257-258). Serial adjacency is the feature whereby one word follows another such that talk is continuous. Sequential adjacency implicates the structural progress of the turn-so-far, such that each next word is a grammatically *successive* word. Progressivity, according to Lerner (1996), requires both types of adjacency to co-occur. However, the two are separable, such that a serially adjacent word can be delayed (for example, by laughter or pausing), and/or a sequentially adjacent word can be delayed (by word repetition). Progressivity is an important feature of the TCU with implications for turn taking, because its disruption provides for places within a speaker's turn where a recipient can opportunistically move

into speakership in order to launch interactional work of their own (see Jefferson, 1983; Lerner, 1996).

Sacks et al's (1974) turn allocation component covers two techniques for turn distribution: 'current speaker selects next speaker', and 'self-selection'. The authors state that participants can be seen to orient to the following set of rules for turn allocation:

"(1) For any turn, at the initial transition-relevance place of an initial turn-construction unit:

(a) If the turn-so-far is so constructed as to involve the use of a 'current speaker selects next' technique, then the party so selected has the right and is obliged to take next turn to speak; no others have such rights or obligations, and transfer occurs at that place.

(b) If the turn-so-far is so constructed as not to involve the use of a 'current speaker selects next' technique, then self-selection for next speakership may, but need not, be instituted; first starter acquires rights to a turn, and transfer occurs at that place.

(c) If the turn-so-far is so constructed as not to involve the use of a 'current speaker selects next' technique, then current speaker may, but need not continue, unless another self-selects.

(2) If, at the initial transition-relevance place of an initial turn-construction unit, neither 1a nor 1b has operated, and, following the provision of 1c, current speaker has continued, then the rule-set a-c re-applies at the next transition-relevance place, and recursively at each next transition-relevance place, until transfer is effected."
(Sacks et al, 1974: p. 704)

This set of rules has been shown to account for the range of turn-taking practices in conversation, regardless of number of participants, context or topic. Studies have shown that the rule set is oriented to by speakers for the accomplishment of orderly talk (Jefferson, 1973; Schegloff and Sacks, 1973; Schegloff, Jefferson and Sacks, 1977; Schegloff, 1982).

3.3.2 grammatical, prosodic and pragmatic resources for turn organisation

Sacks et al identified grammar as a critical resource for turn organisation when they stated: "Unit-types for English include sentential, clausal, phrasal, and lexical constructions" (1974: p. 702). It has since been recognised that such abstract linguistic entities may not stand in a one-to-one relationship with the units of actual talk (see the discussion in Goodwin, 1981), but that, however defined, grammar is one basic organisation for the TCU (Schegloff, 1979; Schegloff, 1987a; Lerner, 1991; Schegloff, 1996a). Fox, Hayashi and Jasperson (1996) describe the practicalities of turn organisation in English in terms that emphasise the role of grammar:

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"often in English as soon as one hears the subject, one knows (in a practical sense) that a verb is coming; and as soon as one hears the verb, one knows what is likely to come after the verb: certain kinds of verbs typically co-occur with direct objects while others typically co-occur with embedded clauses. That is, the beginning of the clause in English is rich with information about how the clause is likely to continue." (1996: pp. 209-210)

In a cross-linguistic investigation of repair in English and Japanese, the authors state that TCUs in English show "tight syntactic organization" (p. 208), because of the requirement to express a subject, verb and object (in Japanese there is a tendency to leave such elements unexpressed). They conclude that, as a result of this tight organisation, grammatical projection in English is strong, thus permitting speakers to identify the end of a TCU relatively early during a turn-in-progress. They contrast this with Japanese, the loosely organised grammar of which encourages 'wait and see' strategies, and results in a speaker's recognition of a TRP occurring relatively late in a turn.

Other important resources for the construction and recognition of TCUs include prosody (Sacks et al, 1974; Local et al, 1986; Auer, 1996; Couper-Kuhlen and Selting, 1996; Ford, Fox and Thompson, 1996; Ford and Thompson, 1996; Selting, 1996; Schegloff, 1998), gaze (Goodwin, 1979; 1981) and action structure (Goodwin and Goodwin, 1992a) or 'pragmatics' (Ford et al, 1996; Ford and Thompson, 1996). With respect to prosody, Selting (1996) finds that, in German, the ends of turns exhibit marked falling or rising pitch movements whereas non-final elements are characterised by mid-level pitch height, and that recipients orient to this resource as a turn-holding strategy. Ford et al (1996) and Ford and Thompson (1996) find a similar practice occurring in American English, as do Corrin, Tarplee and Wells (2001) in British English-speaking children learning to talk in multi-word utterances. In addition, Local et al (1986) and Ford and Thompson (1996) highlight the relevance to turn transition of prosodic lengthening of final syllables. With respect to action structure, Goodwin and Goodwin (1992a) discuss how participants orient themselves to the unfolding properties of an activity such as assessment, using its recognisable structure as a resource for the organisation of their subsequent talk, such that they can project where to start talking as well as how to respond. Ford and Thompson (1996) discuss this type of projection of turn completion as 'pragmatic', and define it as the completion of a conversational action within a specific sequential context.

Studies suggest that participants actually deploy *clusters* of such resources to project the TCU, and thus signal a TRP (Goodwin, 1981; Auer, 1996; Ford et al, 1996; Ford and Thompson, 1996). To a great extent then, grammatical cues converge with features such as prosodic and action completion, and gaze, to project the possible end point of a turn at talk. Ford and Thompson (1996) make the point that grammar "in itself is not the strongest predictor of speaker change" (1996: p. 156) and that "intonation plays a major role in determining *which* syntactically complete utterances are being projected by hearers as complete units." (1996: p. 157). Thus they believe that transition must centrally involve prosody. Auer (1996) similarly concludes that intonational cues can be used to counteract the projection of a TRP when a speaker wishes to add a noun or adverbial phrase expansion to a possibly grammatically complete turn at talk. Goodwin (1981) finds that, in face-to-face interaction, turn completion and turn extension beyond the first possible TRP involve a combination of gaze and grammar, at the very least.

3.3.3 collaborative turn production

One particular way in which participants can be seen to orient to features of turn organisation is through their ability to collaboratively produce turns. Lerner (1991; 1996) has shown that a participant is able to actively analyse the grammatical resources used by a speaker to structure a particular type of TCU, a 'compound' TCU, in order to effect what he calls 'conditional entry' into the turn of the speaker to initiate anticipatory completion of the current utterance. The result is the construction of a single utterance across the talk of two speakers. Lerner's compound TCU consists of two serially ordered components; a 'preliminary' component and a 'final' component. The preliminary component projects a shape for the TCU as a whole, plus a possible form for the final component. In addition, the start of the final component projects a place where completion can begin. The resulting resources permit a second speaker to anticipate and supply the rest of the utterance. Commonly, collaborative turn construction occurs for compound TCUs with strongly projected grammatical formats, such as *if X – then Y* and *when X – then Y*, where *if/when X* is the preliminary component whose production projects not only that a compound TCU is underway, but also what it will take for the preliminary component and the TCU as a whole to be brought to completion. This furnishes a second speaker with all the resources they need to complete the turn. An example of each format is given below:

(i)	David: →	so if one person said he couldn't invest
		(.)
	Kerry: →	then I'd have ta wait	[Lerner, 1991; p. 445]

| (ii) | Louise:→ | when he gets his eyes like this an' he starts thinkin, you know |
| | Ken: → | then you get to worry | [Lerner, 1991; p. 445] |

In addition, Lerner (1991) describes how other features of conversation apart from grammar can provide the same type of compound format. As examples he gives: list structure, i.e. *[items 1, 2] – [item 3]*, where items 1 and 2 form the preliminary component, and item 3 the final component; prefaced disagreement, *[preface – disagreement]*, where a preface to a disagreement such as the marker *well* forms the preliminary component, and the disagreement utterance the final component; preformulations that project multi-TCU turns, such as *there are/you have two X*, where the first TCU presents an option which forms the preliminary component, and the second TCU, often contrastive in nature to the first, forms the final component. All formats allow for the practice of collaborative completion because they are highly projectable in terms of the *action structure* of the talk. Lerner and Takagi (1999) point out that the prosodic design of a turn can also function to cast an utterance as a compound TCU even though it lacks the grammatical features of one. The authors suggest that prosody is most likely to act in this way in combination with strong projection of action structure.

Lerner (1996; 2004) notes that in some sequential environments, the anticipatory completion of current turn by another participant can initiate a brief sequence, a 'collaborative turn sequence', in which acceptance (or rejection) of the proffered completion becomes the focus of interaction. This results in the speaker of the preliminary component of the compound TCU offering an acceptance token such as *yeah* or *right* in the turn immediately following the anticipatory completion by the other participant, as illustrated in the data extract below:

Marty:	now most machines don't record that slow. so I'd wanna- when I make a tape,
Josh:	be able tuh speed it up.
Marty: →	yeah.	[Lerner, 1996: p. 241]

As Lerner (1996) points out, anticipatory completions launched just at or after completion of the preliminary component are such a strongly oriented-to feature of a compound TCU-in-progress that they rarely result in overlapping talk; the first speaker drops out to permit the recipient to proffer a version of the final component in the clear.

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The smooth coordination of such collaborative productions is testament to the work being done by participants to orient to resources for turn organisation such as grammar, action structure and prosody.

3.3.4 linguistic form as a resource for turn construction

Studies that have set out to explore the interface of talk-in-interaction and linguistic structure have uncovered several distinctive turn construction formats in mundane conversation. One, the 'referent + proposition' construction (Ochs, 1979; Keenan and Schieffelin, 1983), traditionally referred to in the linguistics literature as 'left dislocation' (Givon, 1990), will be outlined here. Keenan and Schieffelin (1983) describe the format of such an utterance in the following way: "some referent is specified initially and is then followed by a proposition relevant in some way to this referent." (1983: p. 158). The following extract gives an example (the 'referent', a noun phrase, is highlighted in bold type, and the subsequent 'proposition' is underlined):

K:	they cleaned me out.
→	and **my father** <u>oh he's he's fit to be tied.</u>
R:	tell daddy to buy you some more.

[Keenan and Schieffelin, 1983: extract 1, p. 158]

The authors also note the tendency for the noun phrase to be produced with 'slight rising intonation (represented by a comma in transcript).' (Keenan and Schieffelin, 1983: p. 173), although in a minority of cases there is falling intonation followed by a brief pause.

Geluykens (1992) treats the construction, which he calls left dislocation, as a collaborative sequence with three stages:

(i) turn 1 (speaker A): introduction of a noun phrase, often try-marked

(ii) turn 2 (speaker B): acknowledgement of the noun phrase, either a receipt token (e.g. *mm*) or a pause attributable to B, a 'tacit acknowledgement cue' (1992: p. 42)

(iii) turn 3 (speaker A): production of a proposition concerning the noun phrase, containing a co-referential pronoun

As Geluykens points out, turns 1 and 2 resemble the more general collaborative work embarked upon by participants in conversation to establish reference. Thus, he finds that extra stages can be inserted before turn 2 to deal with problems of noun phrase identification. Auer (1984) describes how problematic reference can either be approached as a matter to be settled before the main activity of a turn is launched,

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warranting the use of a standard formula such as *do you know X*, or it can be signalled more subtly via pausing and hesitation, leaving the recipient with the option of either treating reference as problematic in next turn, or letting the noun phrase pass unremarked. Thus, recipient is not obliged to respond. The findings of Geluykens (1992) support this view – turn 2 acknowledgement can involve letting the noun phrase go unremarked, tacitly acknowledging it by passing up the opportunity to clarify.

Functionally, this type of construction is employed for the purpose of highlighting or foregrounding a noun phrase, which may or may not have been discussed previously (Keenan and Schieffelin, 1983; Geluykens, 1992), and it is thus considered an example of 'topic-comment' structure (Keenan and Schieffelin, 1976; Li and Thompson, 1976). Keenan and Schieffelin (1983) discuss several particular functions of the 'referent + proposition' construction, such as (i) suggesting an alternative to a noun phrase produced in prior turn; (ii) drawing attention to a particular case of some general phenomenon under discussion, or some particular member of a previously specified set; or (iii) giving special emphasis or importance to the referring term currently under discussion. The authors outline other constructions that function in a similar way, such as '*how about* referent + proposition', and '*remember/see/consider/y'know* referent + proposition', both of which directly prompt a listener to attend to a noun phrase. They conclude that all such constructions, including 'referent + proposition', are actually interactional sequences where recipient action is as important as speaker talk.

Kim (1995) focuses on a specific context where 'referent + proposition' constructions are often found: story telling. In story telling, Kim concludes that the foregrounded noun phrase is used to (i) disjunctively resume a story; (ii) initiate a second, linked story; or (iii) repeat a story, displaying an upgraded affective stance to it. According to Kim, in all functions the foregrounded noun phrase is found to have contextual links with prior talk, whether it is newly introduced or not, such that it relates to what is being talked about, thus conforming to recipient design principles. The implication seems to be that foregrounding does not occur for topically new referring expressions. This contrasts with Geluykens's (1992) finding that a topically new referring expression (one that is 'irrecoverable', to use his term), can be introduced by foregrounding. He notes that a speaker who does such a thing will use 'interactional cues' to signal the expression's irrecoverability. In Geluykens's data, these cues include the elements *but, for instance, you know, now* and *one other thing*. In CA terms, these elements are disjunct markers, and in this sequential context they function to mark a shift in what is being talked about.

Ochs (1979) investigates the 'referent + proposition' construction in the speech of young children, and concludes that it may be a 'transitional structure', demonstrating a move from sequential organisation to grammatical organisation of adjacent words in a language environment of developing grammar. More generally, it seems that propositions are commonly conveyed via sequences of two or more utterances at an early stage of language development, before the transition to grammar occurs (Ochs, Schieffelin and Platt, 1979). Corrin et al (2001), in an investigation of the emergence of children's multi-word speech, found that prosody, particularly the deployment of a mid-level pitch contour, was a crucial resource for indicating that a turn-initial element, often a noun, would be followed by further talk, often a proposition, for example 'duck, (0.5) it goes there.' (p. 205; see also Corrin, 2002)

To summarise, it appears to be the way that the 'referent + proposition' construction is built, with a noun phrase in initial position, which renders it a distinctive turn construction format with particular interactional functions. The next section will discuss some of the general properties of turn beginnings that may contribute to the functional importance of this structure.

3.3.5 turn beginnings

Turn beginnings warrant particular mention because they are "sequence-structurally important places in conversation" (Schegloff, 1987a: p. 71). This importance relates to projectability; the turn beginning represents the first possible place, and the element in this position the first resource, for projecting a TCU's shape or type. Thus, turn beginnings are a critical resource for the organisation of the turn-taking system, with its aim to achieve the feature 'one speaker talks at a time'. Schegloff (1987a) discusses how certain turn beginning elements can accomplish very specific types of projection. He gives as examples: wh-words doing question projection; forms such as *he says* doing quotation projection; forms such as *I don't think* projecting disagreement. Another type of turn beginning with a specific job of projection is the 'presequence' (see, for example, Schegloff, 1990), a complete TCU built to be preliminary to a projected next turn type. Some presequences project *specific* next turn-types, for example, a story-telling preface projects a story (Jefferson, 1978), a call preface projects a call to a third party (Rae, 2001) and a call closing projects the end of a call and thus the suspension of turn-taking (Schegloff and Sacks, 1973). However, others are *generic*, in that they project further talk but not its particular type. The prototypical generic presequence is the 'summons-answer' sequence, a general attention getting device that involves most

commonly the name of the participant that speaker wishes to summon the attention of, or a term such as 'excuse me', or physical contact (Schegloff, 1968). Beginnings then, are clearly important for the projection of what it will take for turn ending to be achieved, and thus, are a crucial resource for both speaker and recipient. With respect to establishing reference, turn beginning can be a useful slot, because it permits speaker to gain recipient's attention, to highlight a new referring expression, and to project that the turn-in-progress will have as its focus the noun (phrase) so highlighted. Placing a topically new referring expression in turn-initial position may also have an important turn holding function, since the recipient is required to 'wait and see' what type of comment will unfold, given the absence of prior sequential context.

In addition, turn beginnings are important because of their relationship to *preceding* talk. Schegloff (1996a) discusses how turn beginnings do *generic* jobs of back-linking, such as showing a preceding turn was heard and understood, but he also highlights the *particular* jobs they can do. Examples include stance-taking, such as aligning with or against, and doing sequentially disjunctive nexts. Interestingly, these types of jobs often seem to get done via the deployment of specific *discourse markers* such as disjunct markers (for example, *well*, see Pomerantz, 1984), misplacement markers (for example, *by the way*, see Schegloff and Sacks, 1973), resumption markers (for example, *but*, see Mazeland and Huiskes, 2001), interruption markers (for example *wait a minute*, see Schegloff, 1987a) etc.

Within the turn beginning position, there is also a slot that Schegloff (1996a) refers to as 'pre-beginning'. Elements in this slot are utilised to secure a turn without beginning a specific construction, by merely projecting the onset of talk. Objects used in this position include fillers such as *uh* or *um*, an audible in-breath, a cough or throat clear, a smile or other facial expression, redirection of gaze or the beginning of a gesture (see discussion in Schegloff, 1996a: pp. 92-93). Such elements serve to initiate a turn without committing the speaker to the production of a specific TCU within that turn. According to Schegloff, the observable interactional import of pre-beginning elements for turn construction suggests that the set of elements from which TCUs are composed, and subsequently the definition of what counts as 'grammar' in talk-in-interaction, needs to widen to include more than just 'linguistic' resources.

3.3.6 positionally sensitive grammars

Schegloff (1996a) proposes the notion of 'positionally sensitive grammars' (1996a: p. 108) to explain how the construction of a TCU or a turn may be related to its position in

a sequence of TCUs or turns. He suggests, for example, that a one-word answer to a wh-question might be the 'proper grammatical form' (1996a: p. 108) for a turn doing an answer in a sequential position following a question; the 'basic grammatical form' (1996a: p. 109), in fact, that such an utterance takes in order to achieve and demonstrate to a participant the action of answering. He points out that, although other forms *can* be used, overwhelmingly they are not, and when they are, it is to achieve some interactional work in addition to doing an answer. Viewing turn construction as positionally sensitive might, according to Schegloff, avoid the need to identify certain utterances as elliptical reductions of full sentence forms, with the implication that they represent 'deviations' from the grammatical norm of the abstract sentence, which need explaining away rather than accounting for as a fundamental part of grammar. If turn constructions are positionally sensitive, then it may be the case that the form of an utterance can become linked, via recurrent use by speaker, to the action that it does, and that the form, in turn, becomes recognisable to recipient and consequential for the subsequent organisation of the interaction. Schegloff calls such constructions 'recognizable turn formats' (1996a: p. 64).

3.4 REPAIR ORGANISATION

Repair is another conversational phenomenon that illustrates participants' orientation to turn organisational phenomena. 'Repair' is a generic term used to refer to the practices for dealing with a wide range of events in conversation, including mis-selection of words, mis-hearings, slips of the tongue, misunderstandings, etc. Such events may or may not arise as a result of errors, hence the preference for the term 'repair' over 'correction'. Schegloff et al (1977) describe a wide-ranging repair system by drawing a distinction between the initiation of repair, which involves highlighting something as a source of trouble, and the actual repair itself. In addition, the authors also distinguish between repair initiated by self (the speaker of the trouble source) and repair initiated by other (recipient of the trouble source). As a result of these two distinctions, there are four varieties of repair. These are (i) self-initiated self-repair, repair both initiated and carried out by the speaker of a trouble source; (ii) other-initiated self-repair, repair carried out by the speaker of a trouble source after being initiated by the recipient; (iii) self-initiated other-repair, repair initiated by the speaker of a trouble source, but carried out by the recipient; and (iv) other-initiated other-repair, where the recipient of a turn containing a trouble source both initiates and carries out the repair.

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Devices for other-initiation include the elements *huh* and *what*, wh-questions, partial repeats of the trouble source turn, sometimes with a wh-question (for example, *he went where?*), and *y'mean X* or *what X*, where X is a candidate understanding. Whereas most devices for other-initiation involve the recipient locating the source of trouble, a small set, dubbed 'open' class repair initiators (Drew, 1997), are designed to indicate some difficulty with the speaker's turn without specifically locating where or what the difficulty is. These include *pardon*, *what* and *sorry*. Drew (1997) suggests that such devices are used to indicate trouble with the speaker's turn as a whole, arising from the sequential connection between the turn and prior context, such that the recipient cannot find a topical link or judges the speaker's turn to be sequentially inappropriate for some reason.

Schegloff et al (1977) propose a preference for *self*-repair. There are two reasons for this: (i) repair organisation is structurally biased towards it, in that three of the four sequential opportunities for repair occur in the trouble producer's turn, and (ii) if other becomes involved in the repair process, his or her turns are designed to yield self-repair by the speaker of the trouble source; other-repair, or correction, is avoided where possible (it is rarely seen in conversational data). In addition, where other-repair is unavoidable, it is downplayed by being marked as dispreferred – it is delayed, and downgraded, for example by being formulated as a candidate correction for acceptance or rejection, rather than as a blunt statement of correction (Schegloff et al, 1977).

3.4.1   repair and grammar

Key studies that have examined the interplay between repair and grammar are Schegloff (1979) and Goodwin (1981). Schegloff (1979) discusses the effect of repair procedures on the construction of turns, and the influence of progressivity on repair organisation. He finds that repair often has an effect on the structure of an utterance, changing its grammatical form, for example, by converting a question into a statement. In addition, Schegloff notes that repair appears to be systematically relevant for utterances designed to effect a shift in what is talked about. Such utterances commonly have self-repair at the word which introduces the new topic of talk, often with a noun cut-off at some point during its production and a descriptive or modifying word inserted before it, even though the reason for the repair is unclear. Interestingly, Schegloff points out that if there is no self-repair in such an utterance, *other*-initiation of repair frequently follows it. Thus, he argues that a link exists between the action that the utterance is designed to do, i.e. initiate a new topic of talk, the form that the turn takes, and the presence of

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repair. Finally, Schegloff discusses how the pressures of progressivity lead to the *orderly* positioning of successive repairs on a trouble source, such that each next 'try' at the repair displays progress towards a solution. The overall impression is of the turn moving forwards towards completion, despite the temporary hitch in serial and sequential adjacency caused by the need for repair.

In conclusion, Schegloff (1979) proposes that repair has the ability to override the grammatical ordering of talk-in-interaction, in order to impose its own organisation on the turn. He states that the 'non-syntactic' orderings that can result from the operation of repair in utterances are "not unsyntactic in principle; they happen not to be components of the types of syntax of which we currently have accounts." (Schegloff, 1979: p. 280). Thus, he asserts that a 'syntax-for-conversation', or an interactional grammar, has to be able to deal with the operations of repair, and indeed with other forces that shape turn organisation, in addition to presenting an account of the structural aspects of talk.

Goodwin (1981) proposes that a speaker can use a repair, such as the addition of a new segment to the end or middle of a sentence, as a resource to secure the gaze of a recipient without the request for recipient gaze emerging as a noticeable event in its own right. Rather than being involved in the task of achieving mutual orientation, the speaker is 'officially' involved in repairing their own talk. When a speaker deploys repair as a resource for mutual orientation, the sentence that emerges differs grammatically from that which was originally projected at the beginning of the TCU. The following extract, from Goodwin (1981: p. 130) illustrates how repair work carried out by the speaker, Ralph, results in the recipient, Chil, returning his gaze (marked by a solid line under the talk) to Ralph (point of return marked by X) after it is momentarily lost (marked by comma) in the middle of the utterance:

Ralph: somebody said looking at   my:, son m y oldest son,
                                                           [
Chil: _____ ,   . X_____

The addition of the adjective, *oldest*, alters the grammar of Ralph's utterance-in-progress. This particular use of repair is beneficial because it results in the attention of both participants remaining directed to the talk that the speaker is producing, rather than the speaker's turn getting lost in the activity of maintaining focus. Goodwin concludes that the construction of a sentence is an interactive process involving both speaker and hearer, and that their collaborative work systematically modifies the emerging structure by adding to it, deleting from it and changing its meaning. Thus, he proposes that the

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analysis of sentences cannot be performed on examples isolated from the process of interaction within which they were built (see also Goodwin, 1979).

3.5 INVESTIGATING APHASIA USING CA

It has long been recognised that the study of aphasia, and indeed of communication difficulties in general, needs to account for abilities within the context of natural language use, not just performance on metalinguistic tasks (see Holland, 1980; Davis and Wilcox, 1985; McTear and Conti-Ramsden, 1992; Lesser and Milroy, 1993; Perkins, Body and Parker, 1995; Perkins and Howard, 1995; Body, Perkins and McDonald, 1999; Perkins, 2001). In response, those studying communication disability adopted the concepts and theories of pragmatics, a branch of linguistics concerned with the use and understanding of language in context (see for example Levinson, 1983; Yule, 1996). This has become known as 'clinical pragmatics' (Perkins, 1998; Perkins M., 2003). The majority of pragmatic investigations of aphasia take a 'top-down', theory- and analyst-driven approach, based on an external judgement about the issues that are relevant to communication, and involving the application of pre-defined theoretical concepts and rules determining 'competent' communicative behaviour (Perkins and Lesser, 1993; Wilkinson, 1999a). Many pragmatic assessment and intervention procedures elicit communicative behaviour via interview or role play, and do not consider the behaviours of the conversational partner, merely the aphasic speaker (Lesser and Milroy, 1993). Thus, transactional aspects of language use – how speakers with aphasia 'get the message across' – tend to be emphasised to the detriment of social interaction.

However, recent recognition of the importance of everyday conversation to the long term psychosocial welfare of speakers with aphasia (Lyon, 1992; Kagan, 1995; 1998; Parr, Duchan and Pound, 2003) has led to an upsurge in the application of qualitative research methodologies, in an attempt to engage with more authentic and naturalistic data (see Damico, Simmons-Mackie, Oelschlaeger, Elman and Armstrong, 1999, for a review). CA is one such methodology that is gaining attention in aphasiology (Perkins, 1995; Damico, Oelschlaeger and Simmons-Mackie, 1999; Wilkinson, 1999a), and in other areas of communication disability (Perkins, Whitworth and Lesser, 1998; Radford and Tarplee, 2000; Bloch, 2005; Dickerson, Rae, Stribling, Dautenhahn and Werry, 2005). The following section will present a brief outline of

notable CA investigations of aphasia, followed by a summary of the key findings of studies that have addressed the issue of aphasic grammar.

3.5.1 an overview of investigations to date

Many CA investigations of aphasia have focused on the issue of repair (for example, Milroy and Perkins, 1992; Lesser and Milroy, 1993; Ferguson, 1994; Wilkinson, 1995a; 1995b; 1999b; Laakso, 1997; 2003; Lindsay and Wilkinson, 1999; Perkins L., 2003). Key findings include: aphasic repair sequences have a much longer trajectory than normal; the preference for self-initiated self-repair is maintained but followed by self-initiated other-repair (not other-initiated self-repair as in non-aphasic talk); repair attempts are often abandoned unresolved; a confirmation sequence occurs after the repair to indicate successful resolution; repair often becomes the focus of conversational activity. Lubinski, Duchan and Weitzner-Lin (1980), Laakso and Klippi (1999), Oelschlaeger (1999), Oelschlaeger and Damico (2003), and Helasvuo, Laakso and Sorjonen (2004) have explored the specific repair behaviours associated with word searches. An important finding concerns the presence of a 'hint and guess' sequence (Lubinski et al, 1980). Laakso and Klippi (1999) describe its stages: (i) the aphasic speaker signals the presence of a problem, (ii) the aphasic speaker appeals to their co-participant for help, (iii) the aphasic speaker offers a 'hint' and the co-participant offers a 'guess' or candidate resolution, and (iv) a confirmation phase occurs. Stage (iii) can often become prolonged, with multiple hints and guesses occurring before the search ends. Other key findings include the aphasic speaker's preference for self-repair attempts before launching a hint and guess sequence, and the use of gaze as a resource for indicating word search as a self- or other-directed activity.

Other studies have investigated the process of achieving mutual understanding more generally (Klippi, 1990; Goodwin, 1995; 2003b; Wilkinson, 1995b; 1995c; Klippi, 1996; 2003; Beeke, Wilkinson and Maxim, 2001b; Goodwin, Goodwin and Olsher, 2002; Lind, 2002a). A discussion of Goodwin's (1995) seminal work in this area will now be presented, since the concepts and findings remain extremely influential for CA investigations of aphasia.

Goodwin (1995) investigates the conversation of Rob, whose severe aphasia has reduced his output to three words: *yes*, *no* and *and*, plus nonsense syllables with meaningful intonation melodies. Goodwin explores how Rob and his interlocutors, his wife and nurse, co-construct meaning by making use of a range of resources arising from the sequential organisation of talk. The author points out that co-construction is

made possible by Rob's ability to understand talk and to produce a competent reply at such a place where it is relevant to do so. The co-construction sequence identified by Goodwin is described as a "specialized language game" (1995: p. 237), involving Rob and his co-participant in extensive work designed to uncover what he is trying to say. Such work involves the co-participant in offering guesses for acceptance or rejection, using what Goodwin refers to as 'interpretive frameworks' to permit the selection of new guesses. For example, in this extract, guesses are alternatives from the category set of foods that are spread on English muffins:

Nurse:	English muffin?
	(3.4)
Rob:	ye:s.
	(0.4)
Nurse: →	a: ⌈nd what would you like on it.
Wife:	⌊just one.
	(0.8)
Nurse: →	jelly?
	(1.0)
Rob:	no:
	(0.8)
Wife: →	butt ⌈er?
Nurse: →	⌊butter?
	(0.3)
Rob:	yes.
	(0.6)
Nurse:	okay. [Goodwin, 1995: extract 2, p. 237]

For Rob, collaborating in this way requires him to attend to the sequential organisation of talk, and to tie his utterances to the talk of others, producing second pair part answers to questions. Goodwin finds that in addition to merely responding to guesses, Rob can also take up a stance towards his interlocutors' activities, such that he can exit from a sequence of guesses that are not within an appropriate interpretive framework, or indicate that his co-participant should continue with guesses where something is 'in the ballpark' but not entirely correct. He systematically deploys verbal and non-verbal resources to do this kind of stance-taking work, for example, producing *no no* whilst averting his gaze from the guesser to exit a sequence, or *yes* with rising intonation to indicate that his co-participant is 'onto something' but should continue to guess further. In conclusion, Goodwin highlights that the process of co-construction requires others to treat Rob as a competent interactant, whose behaviours constitute "an effort to say something meaningful, rather than the random movements of a man whose brain has been massively damaged." (1995: p. 254). Goodwin calls into question the value of

assessing competence via testing the ability to produce decontextualised language, saying "As an injury, aphasia does reside within the skull. However, as a form of life, a way of being and acting in the world in concert with others, its proper locus is an endogenous, distributed, multiparty system." (1995: p. 255).

Work that has focused on particular adaptive interactional strategies such as the use of gesture, discourse markers, laughter, or specific lexical and grammatical elements includes that of Simmons-Mackie and Damico (1996); Oelschlaeger and Damico (1998a; 1998b); Goodwin (2000); Beeke et al (2001b; 2003a; 2003b); Lind (2002b); Madden, Oelschlaeger and Damico (2002); Beeke (2003); Wilkinson et al (2003). Those that reveal findings relevant to grammar will be discussed in depth in the following section.

3.5.2 CA perspectives on aphasic grammar

The investigation of turns at talk and their properties as a possible factor in accounting for aphasic grammatical output represents a relatively new area of enquiry. This section will present an overview of studies to date that have investigated aphasic grammar using a CA approach. Studies are divided into two broad groups, depending on whether they reveal (i) new perspectives on grammatical symptoms, or (ii) grammatical turn construction phenomena.

3.5.2.1 new perspectives on grammatical symptoms

One of the first studies to reflect specifically on conversational grammar was Wilkinson (1995a). In his investigation of a speaker with non-fluent agrammatic aphasia, Wilkinson suggests that the relationship between conversational grammar and task-based sentence production is not straightforward. The speaker demonstrates a greater ability to manipulate grammatical structures such as subject-verb-object constructions when completing a picture description task than he does in conversation, where turns at talk rarely contain verbs other than in fixed units such as *I think, I mean* and *you know*. The discernible mismatch between the speaker's elicited and interactional grammar, and the impact of a lack of verbs on his conversational skills, leads Wilkinson to suggest that it is not sufficient to investigate aphasic grammatical abilities in the constrained environment of the picture description task.

Klippi (1996) investigates the construction of single-word utterances as part of a study of communicative adaptations to aphasia in the group conversations of Finnish speakers. Her findings reveal that all the aphasic speakers, and indeed their SLT, make

use of single-word turns to answer questions, do second assessments or acknowledge prior turns. Indeed, Klippi suggests that the single-word turn is the 'adequate' form for use in such sequential contexts as these. However, one agrammatic speaker's use of single-word utterances to initiate new topics is found to be problematic because a lack of links to prior talk means that recipients have few resources with which to make sense of such turns. Klippi concludes that, if we take an impairment-focused approach to aphasia, we view all single-word utterances as symptoms of grammatical impairment, but if we consider interaction, we see that some single-word utterances are perfectly acceptable forms for the sequential context in which they occur, even if produced by agrammatic speakers.

Springer, Miller and Buerk (1998) employ elements of a CA methodology to investigate the relationship between a trilingual agrammatic speaker's language testing profiles in English and German and the trouble sources occasioning repair in her conversations. Although testing reveals syntax to be a prime area of impairment in German and English, it is word search trouble sources that result in the majority of instances of repair during conversation in both languages. The authors conclude that "it is only in live communicative settings that one can accurately gauge which formal impairments have the greatest consequences for mutual (mis)understanding." (Springer et al, 1998: p. 237).

Heeschen and Schegloff (1999) provide a detailed and important account of telegraphic speech in the conversation of a German-speaking woman with agrammatism, A, and her best friend. By analysing two episodes of talk, one where A uses hardly any telegraphic speech, and another where it is central to her output style, the authors are able to address the issue of what is achieved by the deployment of telegraphic utterances. The findings suggest that, for A, telegraphic style is a resource for mobilising her conversational partner to provide a specific type of help in which she articulates "robust versions of what the aphasic person 'means to say'." (Heeschen and Schegloff, 1999: p. 401). The authors point out that this form of response to problematic talk differs from the usual offer of an understanding check for acceptance or rejection. Moreover, the data suggest that telegraphic style is abundant in one particular episode of A's talk because she is telling a story, and needs to produce extended turns at talk. Heeschen and Schegloff conclude that there is evidence of an *interactional* motivation for some of the telegraphic features of A's talk. In addition, they find, as did Klippi (1996), that some utterances, which on the surface appear to be straightforward telegrammatisms (as defined by aphasiological theory), can be shown to

be *appropriate* grammatical forms for the interactional context in which they are produced. Heeschen and Schegloff suggest that the analysis of conversation can provide a greater understanding of the linguistic problems that an agrammatic person faces in real-life talk-in-interaction.

In a second paper on the same theme, Heeschen and Schegloff (2003) explore the conversation of W, a speaker with agrammatic aphasia, and her daughter, and find a similar motivation for the deployment of telegraphic speech. W can use grammatically elaborate utterances when telling the story depicted by a series of cartoon pictures, albeit very slowly, but opts to produce radically 'spare' constructions in conversation with her daughter. The authors argue that this type of talk prompts the daughter to 'unpack' W's talk, and results in her "speaking on behalf of the patient" (Heeschen and Schegloff, 2003: p. 267) in the same way as A's friend did in Heeschen and Schegloff (1999). However, differences in the strategies of W and A also emerge, specifically in relation to the deployment of verbs. W is able to use verbs as a resource to enable her daughter to systematically uncover the actors in an event that W is relating, by using the argument structure as a frame to guide interpretation. Speaker A in the 1999 paper does not use verbs in this way. An overarching finding of both papers is that "adaptation seems to be more than just some practices on the part of each of the co-participants. Adaptation is a mutual phenomenon." (Heeschen and Schegloff, 2003: p. 268). By revealing the interactive nature of adaptation to aphasia, this work sets itself apart from adaptation theory (see section 2.4.4, page 25), which proposes that adaptation occurs solely within the aphasic individual, motivated by psycholinguistic processing (dis)ability.

The findings of Roenfeldt (1999) are similar in nature to those of Heeschen and Schegloff. Roenfeldt uses CA to explore the conversation of a German-speaking woman with a *fluent* aphasia and *para*grammatism, characterised as confused and erroneous syntax and morphology (see section 2.4.1, page 20). By investigating the woman's self-repair strategies, Roenfeldt shows how so-called paragrammatic behaviours can be interactionally motivated and thus, cannot be regarded as direct symptoms of impairment. She finds that examples in her data of the paragrammatic symptom of sentence blending are identical to the 'pivot' constructions of non-aphasic talk, described by Schegloff (1979). Another symptom, the syntactic break-off, is investigated and found to be employed to curtail aphasic word search, to move a turn towards its completion point with minimal disruption to progressivity. In this way, Roenfeldt argues, it is an interactionally purposeful adaptation to aphasia, not a

'negative' behaviour, or symptom. In addition, Roenfeldt finds that the speaker can detect and repair syntactic errors, thus revealing a level of grammatical skill that remains unaccounted for given her diagnosis of paragrammatism. This finding concurs with the work of Laakso (1997), which reports that speakers with fluent Wernicke's aphasia can successfully self-monitor errors in their conversation, contrary to aphasiological expectation.

3.5.2.2 grammatical turn construction phenomena

Wilkinson et al (2003) examine a specific grammatical turn construction format in the talk of two speakers with fluent aphasia, which is characterised by 'fronting' a noun or noun phrase and/or constructing an utterance using 'general meaning' lexical items such as pronouns, the verb *do* and the noun *thing*. The authors define fronting, with reference to Quirk, Greenbaum, Leech and Svartvik (1985), as the production of a noun or noun phrase at the beginning of an utterance followed by a proposition relating to that noun or noun phrase. In linguistics, it is referred to as left dislocation (see section 3.3.4, page 45). In addition to fronting, Wilkinson et al also observe in their data turns constructed using a large number of general meaning lexical forms. These are often combined to construct utterances such as 'I can do it'. Analysis of the data reveals that, for both speakers, such methods of constructing utterances allow turns at talk to progress in a relatively smooth and unproblematic way, with participants displaying few of the difficulties with turn construction that become apparent when they attempt to use more complex, full-form noun and verb phrases. The following extract from Wilkinson et al contains an example of fronting and the use of general meaning lexical items in the talk of DW. DW is telling his SLT how his ability to say certain words such as his name, address, days of the week, and months of the year has improved. The complex noun phrase 'the months…and eh days' is fronted before the utterance 'I mean…I can do them', which in turn is constructed largely of general meaning lexical items, namely the verb *do* and the pronoun *them*. The fronted noun phrase and the general meaning lexical items are shown in bold type:

DW:	but others I mean like eh:m: (1.3) eh:: (1.1) °eh° >/dʒɹəvə/-<
→	ehm (0.2) **the months**
SLT:	yeah,
DW: →	**and eh days** (0.7) I mean I- I can- (.) I can **do them** (.) **them**
	[Wilkinson et al, 2003: p. 77, from example 6]

Wilkinson et al argue that this method of turn construction can allow speakers to produce relatively complex contributions to the conversation without repair and

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linguistic non-competence becoming the focus of the conversational activity. They conclude that fronting and the use of general meaning lexical items may be understood as responses to the demands of constructing a turn at talk in the light of the speakers' linguistic limitations. Both practices clearly affect the grammatical form of the resulting utterance, with fronting creating the distinctive 'referent + proposition' construction (see section 3.3.4, page 45).

Work by Eves (1999) provides further evidence to suggest that the demands of taking a turn at talk may account for specific grammatical forms in aphasic conversation. Eves's fluent aphasic subject demonstrates the use of what linguists call 'right dislocation', where a noun phrase is positioned to the right of an utterance, with a co-referential pronoun occurring in place of the noun in the utterance (Geluykens, 1987). The following example is taken from Eves's data, a conversation between the aphasic speaker, GB, and his partner. The pronoun and the right dislocated full noun phrase are presented in bold type:

GB → if **he** wants to (1.2) come as well (1.4) tch **Paul**

[Eves, 1999: p. 15, from example 8]

In this turn at talk, GB produces the noun *Paul* at the end of the utterance 'if he wants to (1.2) come as well…'. The co-referential pronoun *he* appears in place of the noun within the utterance. Eves argues that GB's use of this grammatical phenomenon is motivated by the need to produce a turn at talk that is relatively unproblematic in terms of mutual understanding, given the constraints of his linguistic abilities. She concludes that, for GB, right dislocation serves as a method of 'buying time' in which to complete a word search. The data seems to suggest that the demands of taking a turn at talk may influence, at least in part, the characteristics of aphasic grammar.

Oelschlaeger and Damico (1998a) investigate the phenomenon of 'joint production' in the conversation of a couple where the husband, Ed, has fluent aphasia with "poor grammatical organization" (1998a: p. 477). Joint production involves the couple collaborating to co-construct Ed's talk. The authors outline three types of joint production: word search, turn completion and appendor. The turn completion joint productions are particularly pertinent to the grammatical structure of Ed's talk, since they result in Ed's TCU being finished by his wife. In this way, a single grammatical construction is collaboratively produced by two different speakers. This phenomenon resembles the jointly constructed TCUs described by Lerner (1991; 1996; see section 3.3.3, page 43). Oelschlaeger and Damico suggest that Ed's wife is motivated to engage

in turn completion because of a desire to display affiliation, affirming that she is 'in tune' with what he wishes to say. In addition, Ed may be motivated to solicit completions because, although he does not finish such utterances himself, the assumption that he could do so remains intact. In this way, he establishes a perception of communicative competence, whilst actually sharing the turn construction workload with his wife. Grammar in the case of joint productions cannot be ascribed to one single person; this clearly poses analytical difficulties for an impairment-based view of grammatical ability in aphasia.

In a second paper using data from the same couple, Oelschlaeger and Damico (1998b) report on Ed's use of spontaneous verbal repetition as a compensatory strategy. They find that repetition permits Ed to achieve several distinct conversational actions: uncertainty (repeating with questioning intonation); agreement (repeating a proffered word or turn completion with falling intonation); alignment (repeating an assessment term); acknowledgement (repeating the final word of a speakers turn to show he is following it). One of the motivations posed by Oelschlaeger and Damico for Ed's deployment of repetition can again be seen to implicate his grammatical difficulties – repetition permits him to 'borrow' (Wilkinson, 1999b: p. 335) the grammar of other speakers as a resource for turn construction.

In an investigation of the conversation of a Norwegian speaker, Aksel, who has severe agrammatism, Lind (2002a) finds evidence of the deployment of strategies for expressing what she calls 'temporal displacement', or the reference to past and future events in the absence of verb morphology. Aksel's output is severely restricted, consisting mainly of single-word turns built using the following words: *yes*, *no*, *exactly*, *I*, *good*, *fine*, *and*, *but*, *there*; plus a selection of uninflected verbs, for example *eat*, *talk*, *cost*, and fixed units such as *I don't know* and *thank god*. Despite this, he is able to express a past event by producing a present tense verb in next sequential position after the expression of a temporal frame in the prior turn of his co-participant, thus 'borrowing' temporal reference from the non-aphasic speaker. In addition, he is able to offer information about the timing of an event by saying *o'clock* or *year* and tracing a number on the table top, or by offering a noun referring to a day of the week or month of the year. Lind finds that Aksel is also able to convey the timing of events using such strategies in the absence of verbs. Interestingly, the author reports that Aksel is able to inflect verbs for past tense during a picture-based elicitation task with 83% accuracy. This mismatch between performance on testing and in interaction accords with the findings of Wilkinson (1995a).

Lind (2002b) examines the deployment of prosody, specifically pitch variation, as a resource for demarcating grammatical units within Aksel's talk. She finds that when Aksel wishes to produce a TCU that is longer than one word, he uses a form of 'list' intonation to signal that successive elements constitute one TCU. Lind's instrumental analysis reveals that non-final elements of an extended turn are produced with a rising pitch, whereas the final element is produced with final falling pitch. Lind concludes that this is evidence of Aksel's ability to plan ahead to construct a multi-element turn. This suggests that orderliness exists at the level of turn construction, despite the absence of grammar.

Beeke (2003) presents a preliminary investigation of the conversation of Roy, an English speaker with agrammatism, and one of the two participants whose data will be examined in this thesis. Beeke finds that, in conversation with his adult daughter, Roy recurrently makes use of the fixed unit *I suppose* within a turn designed to do the action of assessing an event or state of affairs, for example *amazing because two years or three years but I suppose different*. Like the Norwegian-speaking Aksel (Lind, 2002a), Roy has very restricted output which includes *yes* and *no*, *exactly*, adjectives such as *brilliant*, the connectives *and*, *but*, and *because*, and fixed units such as *I don't know* and *I think*. His use of verbs that are not a part of fixed units such as *I suppose*, *I think* and *I don't know* is very limited – he manages only three in 23 minutes and 09 seconds of conversation. Thus, Beeke argues that the *I suppose* construction may represent an adaptation to the demands of manipulating grammar, and particularly accessing verbs, in the face of Roy's severe agrammatism.

Beeke et al (2003a), in a paper that presents a preliminary analysis of parts of the data of the second aphasic speaker examined for this thesis (Connie), identify two distinctive grammatical phenomena. One is fronting of a noun phrase (as per Wilkinson et al, 2003) and/or a temporal phrase to the start of a turn, the other is sequential construction of a proposition, where elements are linked by adjacency into a single proposition, often in the absence of grammar. In addition, it is found that Connie is able to construct turns from sentences of the subject-verb-object type. These contain general meaning lexical items such as pronouns (see Wilkinson et al, 2003). Beeke et al conclude that both fronting and the sequential construction of propositions achieve a reduction in the amount and complexity of grammar that Connie needs to manipulate in order to produce a turn at talk. Thus, their deployment aids in the production of relatively unproblematic turns at talk despite the linguistic constraints imposed by aphasia. In a second, linked publication, Beeke et al (2003b) investigate Connie's

grammar via language testing, and find, as suggested by Wilkinson (1995a), that there is a mismatch between test and conversational grammar. Thus, although Connie is able to produce a full range of nouns and verbs in isolation and in sentences of a subject-verb-object type, with her main difficulty restricted to the omission of morphology, the grammar of her turns at talk is not often sentential. This adds to evidence that the grammatical phenomena of conversation may be interactionally motivated.

Finally, Bookless and Mortley's (1996) investigation of RT, the severely agrammatic speaker studied by Wilkinson (1995a), merits discussion, even though it does not deploy a CA methodology. In an attempt to develop a method for analysing RT's conversational grammar, Bookless and Mortley highlight the necessity of looking for "*novel* structures which represent the patient's attempts to overcome his/her deficit." (1996: p. 111, italics added). RT's deficit is defined as the lack of a subject-verb predicate framework. The authors propose that RT's talk is organised around nouns rather than verbs. These are some of the novel structures they describe: (i) using a noun to call attention to a concept before delivering a comment on it, or leaving it to the recipient to do so (there are clear parallels here with the 'referent + proposition' construction described in section 3.3.4); (ii) using temporal adverbs with nouns to convey what might otherwise have been expressed by verb tense, e.g. *only last week first time* (similar to the phenomenon of temporal phrase fronting noted by Beeke, Wilkinson and Maxim, 2003a); (iii) using a large number of 'set phrases' such as *I think, I mean, you know*, to achieve a degree of fluency; (iv) linking successive nouns by using the conjunction *and*; (v) using *and* to link a nominal, *-ing* verb form to a prior noun; (vi) using *but* to link nouns in order to express contrast or alternatives. They conclude that RT's talk is "less haphazard and devoid of syntactical structures than it at first appears." (1996: p. 122), and that some of RT's novel structures are in fact akin to features seen occasionally in the talk of non-aphasic speakers in 'informal speech', such as topic-comment structure, and utterances legitimately formed of a single noun, for example, answers to questions, exclamations and attention-getters. This study makes an important contribution to the investigative enquiry into conversational grammar in aphasia because of its insightful and objective descriptions of the types of utterances that actually exist in everyday conversation.

3.5.2.3 emerging themes

The findings of CA studies to date that have explored aspects of agrammatism (and paragrammatism) in conversation seem to suggest that the demands of taking turns at

talk may influence, at least in part, the characteristics of aphasic grammar. The Heeschen and Schegloff (1999; 2003), Roenfeldt (1999) and Klippi (1996) investigations suggest that certain grammatical behaviours that have traditionally been interpreted as direct symptoms of the underlying impairment can actually arise as a result of the interactional context in which they are produced. The studies by Oelschlaeger and Damico (1998a; 1998b), Eves (1999), Lind (2002a), Beeke (2003), Beeke et al (2003a; 2003b) and Wilkinson et al (2003) reveal that grammatical phenomena such as fronting, general meaning lexical items, fixed units, temporal elements, right dislocation, joint production and repetition may represent attempts to manage the sequential demands of turns at talk in the light of specific grammatical limitations affecting structure and morphology. The study by Bookless and Mortley (1996) reveals similar types of constructions without deploying a CA methodology, but most importantly it emphasises the necessity of taking a different approach to aphasic grammar in conversation, one which focuses on investigating residual ability rather than detailing what is missing in terms of the rules of normal grammar. In addition, Lind's (2002b) analysis of pitch variation suggests that prosody may be an important resource when constructing a turn in the presence of grammatical difficulty. The findings of Wilkinson (1995a), Bookless and Mortley (1996), Lind (2002a) and Beeke et al (2003b) suggest that such interactional grammatical phenomena may not necessarily be visible in elicited language data, whilst those of Springer et al (1998) point to the fact that some grammatical impairments revealed by language testing may not actually cause problems for the interactants in conversation.

3.6   INVESTIGATING TESTING USING CA

The prior review appears to suggest that interaction affects the grammatical form of an aphasic speaker's conversational language. In addition, there is evidence in the applied CA literature to suggest that interaction may also affect language form in a testing environment. The work of Marlaire and Maynard, who use CA to explore the dynamics of the standardised testing process for children, will be outlined below.

Marlaire and Maynard (1990) find that test results are collaborative productions of the testee and the tester, rather than solely a reflection of the child's skills. They identify a 'test item sequence' with three components – testing prompts, replies and acknowledgements – and show that each component is affected by interactional contingencies. With respect to the second slot in the testing sequence, the reply, the

authors discuss how children can actively solicit cues from the tester in order to render the process of answering a collaborative one, by responding *tentatively*. A tentative reply is defined as a partial utterance that elicits a repair initiation from the tester, as the following example demonstrates:

CL:		let's do a couple more of these and see if you can get ME on these. first is su- is to second as third is to...
		[*0.7 seconds' silence*]
CH:	→	fuh – ah.
CL:	→	what? I think you said the right one.
CH:	→	foh.
CL:	→	hm?
CH:		four.
CL:		four. right. that's right.

[Marlaire and Maynard, 1990: example 14, p. 93]

Here, both the child's initial response, 'fuh – ah.', which is incomplete and has a filler to indicate hesitation, and second attempt, 'foh.', elicit from the clinician a next turn clarification request, and in the case of the first version, an evaluation that gives the child feedback on the adequacy of the attempt ('I think you said the right one'). Marlaire and Maynard argue that the child's tentativeness results in the clinician offering signals that actually go on to facilitate the child's production. Thus, tentativeness can be viewed as an interactional resource. According to Marlaire and Maynard, even if a child replies straightforwardly and successfully, there is an interactional component to the production, since he or she will often gaze at the clinician and receive in response a verbal evaluation ('good') or a non-verbal cue (a smile) that gives feedback on performance. Thus, there is a systematic relationship between third-slot acknowledgements and second-slot replies, with the resulting acknowledgements often not as 'neutral' as a clinician might intend them to be (Marlaire, 1990).

The authors' finding that testing is an interactional activity contradicts the presumed relevance to testing situations of a stimulus-response model (see also Maynard and Marlaire, 1999). Such a model assumes that there is no dynamic to the testing process, and that testers are merely 'passive conduits of testing stimuli' and 'waiting depositories' of replies (Marlaire and Maynard, 1990: p. 99), whilst testees merely deliver a response that reflects their underlying level of competence in the targeted area. These ideas will be addressed in the analysis of language test data undertaken for the thesis, in order to fully explore the relationship between the grammar of conversation and language testing in agrammatic aphasia.

3.7 SUMMARY

CA affords a unique view of language as a tool for interaction in real-life situations, the characteristics of which occur as a direct result of the demands of constructing a turn at talk. Critical to this methodology is the concept of grammatical structures not as a product of an abstract system, but as "communicatively...real events in time" (Auer, 1996: p. 59). The CA evidence suggests that grammar may be understandable, in part, as an adaptation to the environment, i.e. a series of turns at talk in conversation, in which it naturally occurs and for which it is routinely produced. The relationship between grammar and interaction is thought to be one of reciprocal organisation (Schegloff et al, 1996). Grammar provides a structural orderliness to the shape of turns at talk, and contributes to the signalling of turn endings and therefore to the mechanism of turn taking. In this way, "grammar organizes social interaction" (Schegloff et al, 1996: p. 33). However, the opposite also applies, with interaction exerting an influence over the grammatical form of language. Schegloff et al (1996) cite particles, tag forms, single-word answers and pre-sequences as examples of bits of grammar that may be shaped by their position within a TCU, and subsequently by the position of that TCU within a turn or sequence of turns. This concept gives rise to what Schegloff (1996a) calls positionally sensitive grammars. The findings of the growing number of studies that have applied a CA view of grammar to the investigation of aphasia suggest that some phenomena traditionally viewed as 'symptoms' of grammatical deficit may be interactionally motivated, and thus potentially not characteristic of impairment at all. Findings also suggest that there exist grammatical phenomena that are as yet undocumented, since they are not revealed by language tests. Both issues attest to the power of CA to uncover important insights into aphasic grammar. The small number of studies that have applied CA to the analysis of language testing situations suggest that testing does not conform to a stimulus-response model of behaviour, but rather it is an interactional activity. Every part of a test-item sequence is found to be affected by interactional contingencies, such that the results of tests must be viewed as collaborations, and not solely as a reflection of the testee's skills. This suggests that the grammar revealed by tests of agrammatism may not be immune to the effects of interaction.

This thesis will use the methodology and analytical findings of CA to explore the ways in which characteristics of aphasic interactional grammar may be shaped by the demands of constructing a turn at talk in conversation. The analysis builds on and

extends the work of Wilkinson (1995a), Wilkinson et al (2003), and Beeke et al (2003a; 2003b) in that it focuses on uncovering specific grammatical turn construction phenomena in speakers with aphasia in conversation at home, whilst also examining performance on clinical tests of lexical and grammatical spoken output. In addition, a CA approach is applied to a sample of the test data to explore interactions between the tester and testee. The following chapter outlines the procedures involved in the study, and gives details of the participants.

4 Participants and procedures

4.1 INTRODUCTION

This chapter gives details of the two conversational partnerships who were participants in the study, and background information on the individual with aphasia, including details of onset, a summary of aphasic impairments and a brief history of SLT intervention. This is followed by an overview of the procedures for recruitment and consent, data collection, transcription and the analytic process.

4.2 PARTICIPANTS

Each participant is referred to by a pseudonym for reasons of confidentiality.

4.2.1 Connie and Jane

Connie and Jane are friends who live in the same area of a city, and meet up weekly in each other's homes. It is Connie, a monolingual English-speaking ex-catering manager, who has aphasia. Jane, also a monolingual English speaker, has no communication difficulty.

4.2.1.1 Connie: background information

Connie was 39 years old at the time of data collection. At the age of 35, she had a left hemisphere cerebro-vascular accident (CVA) whilst driving, and as a result was involved in a road traffic accident. Connie was hospitalised for six months, during which time she received SLT three times per week. Following discharge from hospital, she attended out-patient SLT once a week for three months. At the age of 38, Connie had a transient ischaemic attack, and was hospitalised for one day. There is no evidence to suggest that this incident resulted in any further permanent change to her language skills or physical abilities.

Connie has a dense hemiplegia affecting her right arm, and has no useful movement in this limb. She is otherwise fully mobile, lives independently and cares for her chronically ill mother. Connie has a Broca's-type aphasia, accompanied by a moderate articulatory dyspraxia and mild dysarthria. Her motor speech difficulties result in syllable-timed speech, and she engages in subvocal rehearsal. She is able to improve inaccurate productions of target words through self-repetition. Connie's spoken output is non-fluent, with evidence of agrammatism: simplified syntax; morphological errors; limited use of verbs. Her description of the plot of the film 'Titanic' demonstrates this (a series of full stops indicates pausing):

> "girl and boy sailing on a ship…at night…the boy second class…girl first class with her boyfriend…girl walks up to the sea and tries to…boy save her…they in love…girl boyfriend is jealous of the scruffy boy…they hit an iceberg…they swimming boy dead…girl remembers long ago"

Her written output also shows evidence of grammatical difficulty. Connie has good functional comprehension skills.

At the time of data collection, Connie was attending courses in basic computing and written language skills at her local higher education college. Two years prior to data collection, she and her husband received SLT that focused on encouraging conversation-based strategies to aid their communication as part of the 'Coping with Communicating' project (Bryan, Bruce, Edmundson, Maxim, Wilkinson and Moir, 1996; see Lock, Wilkinson and Bryan, 2001). In particular, therapy focused on reducing the use of 'correct production sequences' (see Lock et al, 2001) initiated on Connie's aphasic errors by her husband, and on encouraging the couple in the use of strategies to assist Connie in initiating topic. These included the use of turn-initial (i.e. fronted) alerters by Connie such as *by the way* to highlight topic change, and the use of passing turns (such as *mm hm*) by her husband to give Connie more time to produce her topic initiating turn once she had started it. After therapy, an increase in Connie's use of alerters and her husband's use of minimal turns was visible in their conversation, as was a decrease in correct production sequences. After the end of the project, Connie was referred for regular blocks of individual and group therapy with an SLT service providing long-term aphasia rehabilitation. Individual therapy targeted impairments of written and spoken language, and focused on improving the content and structure of her output by practising narrative production. Group work provided a functional communication environment in which to generalise skills acquired in individual therapy, and to practise communication strategies. Intervention also addressed

psychosocial issues. At the time of data collection, Connie was completing her final block of SLT with this service, at her own request.

4.2.2 Roy and Di

Roy, a monolingual English-speaking ex-manager of a car sales company, is Di's father. Roy has aphasia. Di is the youngest of three daughters, aged 20 at the time of data collection. She visits Roy approximately once a week. Also a monolingual English speaker, Di has no communication difficulty.

4.2.2.1 Roy: background information

Roy was in his mid to late 40s at the time of data collection. He had had a left-hemisphere CVA whilst waterskiing 7 years previously, and had remained in a coma for three months after the stroke. Roy reported that, when he regained consciousness, he was unable to say anything but the word *one* for several months, and unable to understand most of what was said to him. He reported developing epilepsy two years after the CVA.

Roy has a dense hemiplegia affecting his right arm, and has little useful movement in this limb. He is otherwise fully mobile. He lives with his wife, and is an active member of local stroke and exercise groups. Roy has a Broca's-type aphasia, accompanied by a mild articulatory dyspraxia and mild to moderate word finding difficulties. His spoken output is non-fluent, with evidence of severe agrammatism. There are few identifiable syntactic structures, few if any verbs, a high frequency of adverbs, nouns and set phrases such as *I think* and *you know*, and few pronouns, articles or prepositions. His description of events when he had the stroke demonstrates this (a series of full stops indicates pausing):

> "um...so s- er skiing...er waterskiing...yeh uh Gravesend...yeah? uh Kent...
> uh...uh...four of them...uuuhh...blokes y'know...uh...uhhh...boat...and...
> anyway...sort of...waterskiing...and strange!...sort of...and then...ur...bang!
> *((mimes falling over))*... funny...and all of a sudden...bang."

Roy has good functional comprehension skills.

At the time of data collection, Roy had not had any SLT for some years. He reported having therapy regularly as an in- and out-patient in the months following his CVA, and remembered working on sentences and 'little words' at some point during therapy. When he met the author, he talked of his "strive" to lead a full life, and

reported making a point of speaking to people when out, for example, on public transport. He described his speech as missing "um...'and'...you know".

4.3   PROCEDURES

4.3.1   recruitment and consent

The data analysed in this thesis were collected as part of a larger study, funded by the Economic and Social Research Council (ESRC), entitled 'An investigation of aphasic syntax-for-conversation' (ESRC R000222754, Wilkinson, Maxim and Beeke, 2001).[5] Connie was recruited via an approach to the organisation providing her with SLT, and Roy via his local stroke group. The aims of the study and procedure for data collection were explained verbally to both Connie and Roy by the author, and written information was supplied for discussion with family members and friends (sheet reproduced in Appendix 1, page 313). Both were asked, if interested, to approach a family member or friend with whom they spoke regularly to agree to be part of the collection of conversation data. The use of video recording was highlighted, and they were asked only to volunteer if they *and* their family member/friend were completely happy to be videoed. After being given a week in which to decide, each was contacted again to see if they wished to volunteer. The author then visited them at home in order to get both Connie/Roy and their nominated family member/friend to sign consent forms, and to sign over copyright of the video recordings to University College London. The consent and copyright form is reproduced in Appendix 2 (page 314).

4.3.2   video recording a conversation

In order to obtain a sample of conversation, each conversational partnership was asked to independently video record at least 20 minutes of talk at the home of the aphasic speaker over a period of approximately one week. They were encouraged to film at a time when they would normally sit down to have a chat, over a cup of tea, for example. They were advised to record short bits of conversation at different points during the week if they felt uncomfortable about chatting for 20 consecutive minutes (neither needed to do so).

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[5] The author was employed as the research assistant for this study.

It was explained that what was wanted was everyday chat about any topic that came up, and that they should not do anything special or out of the ordinary for the camera; nor should they repeat a discussion they had already had, just for the sake of the recording. One person from each conversational partnership was instructed in the use of a JVC compact video camera by the author, and given written operating instructions (see Appendix 3, page 315). The conversation was recorded in the absence of the author, within the period of weeks over which language testing was carried out.

Connie and Jane recorded 22 minutes and 51 seconds of conversation in one single recording session, and Roy and Di, 23 minutes and 09 seconds.

4.3.3 language testing

In order to obtain samples of elicited language, each speaker with aphasia was asked to complete six assessments of spoken output with the author, a qualified SLT. The assessments, selected from the resources commonly used by UK SLTs who work with English-speaking adults with aphasia, were chosen to elicit quantitative and qualitative data about agrammatism at a single word-, sentence- and narrative-level, in order to (i) investigate the characteristics of each aphasic speaker's agrammatism, and (ii) permit a comparison of elicited and conversational grammar. The tests are:

PALPA 53 spoken picture naming (Kay et al, 1992);

TRIP (Whitworth, 1996);

VAST (subsections *verbs as single words* and *verbs within a sentence*, pre-publication version, Bastiaanse et al, 2002);

Cookie Theft picture description (Goodglass and Kaplan, 1983);

Dinner Party cartoon strip description (from Fletcher and Birt, 1983);

Cinderella story telling (Saffran et al, 1989).

See Appendix 4 (page 317) for a brief outline of the aims, materials and procedure for each test. Testing was carried out in the home, during three one-hour sessions that occurred at approximately weekly intervals. All testing was videotaped.

4.3.4 transcription

4.3.4.1 conversation data

Initially, a continuous sample of between 12 and 13 minutes of talk from each partnership's recording was selected for transcription. The initial segment of

conversation was omitted in order to minimize the effects of participant self-consciousness on the natural quality of the interaction (Goodwin, 1981; Wilkinson, 1999a). Subsequently, short extracts of interest from other sections of the recordings were also transcribed, if judged representative of the partnership's natural style. The transcription format conforms to the system developed by Gail Jefferson, now widely used throughout the CA community (see Atkinson and Heritage, 1984; ten Have, 1999). Additionally, where eye gaze has been transcribed, the system outlined in Goodwin (1981) has been used. For a key to the conversation transcription notation used in this study, see Appendix 5 (page 319). Transcripts of each main (12-13 minute) sample can be found in Appendix 6 (Connie and Jane, page 321) and Appendix 7 (Roy and Di, page 335).

Where extracts are reproduced in the text, a heading indicates speaker names, the sample date, the transcript draft number and the name of the extract. Extracts not taken from the main sample are marked 'additional'. Often an extract in the text has undergone further refinement, and thus the transcript draft number is greater than that of the main sample from which it is taken.

All names of people and places mentioned in the conversations have been altered to protect the confidentiality of the participants.

4.3.4.2 language testing data

Each word- and sentence-level assessment (PALPA 53, TRIP and the VAST) was scored numerically according to test conventions.[6] In addition, the language elicited from both the aphasic speaker and tester during each sentence-level assessment was transcribed verbatim, using basic CA conventions, in order to facilitate a comparison between assessment and conversation data, and to enable the analysis of interaction between the tester and the aphasic speaker. To minimise the length of the transcript for each test item, the tester's talk was placed in square brackets within the aphasic speaker's response, rather than on a separate line of transcript. A few items of particular interest were then transcribed as per conversation data, with each speaker's talk on a separate line. Data from the three narrative tests were transcribed according to CA conventions for conversation, with each speaker's talk on a separate line. Transcripts of Connie's test data can be found in Appendix 8, page 347), and Roy's in Appendix 9 (page 370).

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[6] Although the tester cued the production of the target word or sentence if it was not produced spontaneously, only spontaneously produced efforts were scored, in accordance with test procedures.

Where data for individual test items are reproduced in the text, each is prefixed by the test name, followed by section and item number as per the test score sheet. So, for example, item number 21 from part 1 of TRIP, subsection one (one-argument structures), is prefixed *TRIP P1-S1-21*, whereas item number 27 from part 2, subsection two (two-argument structures), is prefixed *TRIP P2-S2-27*, and item number 36 from part 1, subsection three (three-argument structures), is prefixed *TRIP P1-S3-36*. Likewise, item number 12 from the VAST subtest (i) *verbs as single words* is prefixed *VAST (i)12*, whereas item number 8 from subtest (ii) *verbs within a sentence* is prefixed *VAST (ii)8*.

4.3.5 the analytic process

The analytic process follows a single case design, with analysis and findings for Connie being presented first, followed, in separate chapters, by analysis and findings for Roy. The first analysis chapter for each aphasic participant presents the conversation data. The second presents the language testing data, followed by a comparison of findings for test data and conversation.

4.3.5.1 conversation data

The first stage of the analysis procedure in CA involves locating potentially interesting, possibly orderly phenomena in the data. The data are not approached with a particular question in mind, rather they are examined for phenomena of interest. As Hutchby and Wooffitt (1998) discuss, having collected a number of instances of some interesting phenomenon, or device, the second step is to make an in-depth exploration of one instance, concentrating on the sequential context in which the example occurs, the interactional work that the device is being used to do, and how the participants orient to the device. The third step is to return to the other instances of the phenomenon to see if they can be described in the same terms. Another aspect of the CA procedure that is just as important as making collections of similar devices is the analysis of a single extended sequence, called 'single case analysis' (Hutchby and Wooffitt, 1998: p. 120). This is particularly relevant for the current data, since it involves looking at a single conversation, or section of one, and tracking the ways in which particular conversational devices are used, using the findings of other collection-based investigations to explicate its features.

This study makes use of a mixture of collection-based analysis and single case analysis, since some phenomena are found to recur across the length of the

conversation, whereas others are interesting for the conversational work that is being done, and the resources being used in that work, at a single point in the conversation. Key analytic questions are: what is this utterance being used to do, in other words, what action or actions is it accomplishing? What practices of talk-in-interaction underlie the production of that action?

4.3.5.2 language testing data

Cognitive neuropsychological, linguistic and psycholinguistic methodologies are drawn on to analyse the elicited language samples, in order to (i) investigate the characteristics of each aphasic speaker's agrammatism, and (ii) permit a comparison of elicited and conversational grammar. Data from word- and sentence-level tests are considered in terms of levels of impairment in verb and noun access, ability to manipulate syntactic structure, morphology and argument structure. In addition, the data is analysed for patterns of interaction between the speaker and tester. Narrative-level data, which are likely to consist of talk closer in nature to conversation than the word- and sentence-level tests, are explored using two approaches, (i) a (psycho)linguistic approach that focuses on evaluating standard grammar, and (ii) an interactional approach that aims to uncover constructions similar to those seen in the speaker's conversation data, and to investigate patterns of interaction between the speaker and tester.

5 Turn construction formats in Connie's conversation with Jane

5.1 INTRODUCTION

This chapter will explore turn construction formats that occur in Connie's talk with Jane. Section 5.2 documents novel[7] formats where sequential, prosodic and pragmatic resources are exploited, sometimes in the absence of grammar, in order to package individual elements into a single construction. Section 5.3 reveals that, in addition to novel turn constructions, which are more or less agrammatic in nature, Connie is able to produce sequentially grammatical turns. Several examples of such sequentially grammatical turns are analysed. Finally, section 5.4 explores some examples of turns that occasion a next turn repair initiation by Jane. The analysis pays particular attention to documenting the types of sequences in which constructions occur, particularly with reference to adjacency pair organisation. The aims are to show how Connie constructs turns at talk, and to explore whether construction type is linked to conversational action or sequential position. The chapter concludes with a summary of the types of turn construction format in Connie's conversation with Jane (section 5.5).

5.2 NOVEL TURN CONSTRUCTION FORMATS

5.2.1 turn-initial noun: the action of commenting

This section will investigate turns that are constructed with a noun (or noun phrase) in

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[7] The term 'novel' is used to refer to turn construction formats that represent new methods devised by a speaker in the face of agrammatism, and that remain essentially agrammatic, since they are lacking in terms of syntax and morphology. However, it should be noted that some novel formats clearly resemble the types of non-standard forms that can occur in non-aphasic conversation, a fact that will be addressed at appropriate points during the analysis and discussion.

initial position, followed by a word or words that serve to comment on the noun in some way. The construction resembles the non-aphasic discourse phenomenon 'referent + proposition', a topic-comment structure (see section 3.3.4, page 45), in that the noun or noun phrase is the focus of the comment that follows. A related phenomenon, fronting, was documented in aphasic data by Wilkinson et al (2003) (see discussion in section 3.5.2.2, page 58). This turn construction format is illustrated in Extract 1 and Extract 2, below.

Extract 1 Connie/Jane Jan00#7.*other girl teacher*

Connie and Jane are having a discussion, triggered by a photo on the wall, about Connie's two friends. At the beginning of the extract, which has been simplified for clarity, they are talking about the occupation of one of the friends.

1		Connie	...she wor::k.
2			(0.2)
3		Connie	(/dʒ/) bank,...
			.
			.
			.
4		Jane	in a <u>bank</u>
5		Connie	yeah
6			(0.6)
7		Jane	°oh >right<° what down London
8		Connie	(0.2) yeah
9			(0.3)
10		Connie	hmm
11			(0.4)
12	→	Connie	°hh (other) girl, m (0.3) tuh TEA:cher:
13			(0.6)
14		Jane	she's a teacher=
15		Connie	=yeah
16		Jane	the other one
17		Connie	yeah
18		Jane	°oh right°
19			(0.6)

At line 12, after an in-breath that acts as a pre-beginning element, Connie delivers a turn-initial noun phrase '...(other) girl,...' followed, after fillers and a short pause, by a comment: '...TEA:cher:'. In terms of a positionally sensitive grammar (Schegloff, 1996a), the turn is hearably missing a verb. As a result, no grammatical link exists between the noun phrase and the comment. However, despite the agrammatic nature of the turn, the lexical items are clearly packaged as one construction via sequential, prosodic and pragmatic means. Firstly, the items are *sequentially adjacent*, a fact that exploits the strong tendency for listeners to hear adjacent elements as contextually linked, one to another (Sacks, 1992). Secondly, the noun phrase is produced with

continuative intonation, marked by a comma in the transcript, indicating that the turn is not at an end at this point, and thus suggesting a link between the noun phrase and the subsequent comment. In addition, the comment has final falling intonation on the first syllable, and is produced with syllable lengthening, commonly seen at the end of a turn (Ford and Thompson, 1996). Thus, *prosodic* features serve to package the two items as a single construction. Thirdly, an as-yet-incomplete construction is clearly underway in a *pragmatic* sense at the point at which the noun phrase is delivered, because a focus for talk has been identified, but as yet there is no comment to accompany it.

After a 0.6 second pause, Jane provides a 'robust version' (Heeschen and Schegloff, 1999) of Connie's talk, by fleshing out the grammar: '...she's a teacher' (line 14). This is accepted swiftly by Connie as an accurate reading of her meaning via a latched 'yeah' (line 15). Jane follows this with a repeat of the noun phrase: 'the other one' (line 16), which suggests there may be some problem with the referring expression despite it passing without incident the first time that it was delivered. Connie certainly treats Jane's repeat as an understanding check, confirming it in line 17 with 'yeah'. Thus, the establishment of reference becomes a sequence in its own right (Auer, 1984). After reference is jointly established, Jane marks receipt and acceptance of the content of Connie's turn with '°oh right°' (line 18), and the talk lapses. Thus, Jane is able to interpret Connie's novel construction without the need to ask her to present another version of the talk.

In this extract, the noun *teacher* successfully conveys a comment on the turn-initial noun phrase *other girl* despite the fact that the turn has no verb to provide any structural 'glue', to assign thematic roles to the two nouns. Jane is predisposed by the design of Connie's turn, and by its sequential context, to 'fill in' the missing structure, with the result that she interprets the construction to be *the other girl is a teacher*.[8] By saying not just *girl* but *other girl*, Connie indicates that the person who is now centre of attention is the *remaining* member of a *previously mentioned* set of people. This encourages Jane to look to prior context to interpret the referring expression as the second of the two friends in the photograph that originally sparked the discussion. Given that immediate prior context (lines 1-8) has focused on the *job* of the first friend,

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[8] In an example of a similarly constructed turn, turn design and prior sequential context leads Jane to interpret a different grammatical relationship between two nouns:

```
1           Jane    's that how  ⌈long you've 'ad 'er
2           Connie               ⌊(1 syllable)
3    →              (0.2) yeah yeah °hh um (0.3) tuhh MU:M, (0.2) CA:T.
4    →      Jane    oh it was your mum's
5           Connie  yeah
```

an interpretation of *teacher* as a comment on the job of the second friend is implicated. There is also a sense in which Connie's turn construction in line 12 mirrors that of lines 1 and 3, such that Jane is able to utilise the structural parallels between *she work...bank* and *other girl [hearably missing verb]...teacher* to aid her interpretation. Jane is able to use this contextual and grammatical information to formulate a robust version of what Connie means to say.

The sequential context in which Connie uses a noun-initial construction is one of initiating a new sequence that is distinct from that which preceded it. The adjacency pair initiated by Jane at line 7 with her question '...what down London', is over with Connie's answer ('yeah', line 8), and is treated as such by both participants when they allow the talk to lapse over lines 9 to 11. It is following this lapse that Connie proffers the turn of interest here. Connie's turn introduces a new referring expression and new information to Jane – the action is that of presenting *news*, as Jane's newsmark '°oh right°' suggests. Although the referring expression has not arisen in the talk so far, it is related to the set of prior expressions, 'friends in the photo'. This link is signalled by the use of *other*, a tied term (Sacks, 1992) which takes its meaning from prior context.

Extract 2, below, contains a second example:

Extract 2 Connie/Jane Jan00#7.*middle one forty years old valentine's day*

Connie and Jane are discussing the photographs on Connie's wall, specifically one of her with two friends.

```
1       Jane      °ain' that (a nice) one of you and your friends°
2       Connie    heh heh n-
3       Jane      an' you look the young  ⌈est (on it)
4       Connie                            ⌊hhhehhhhhh
5       Jane      hheh hehheh
6       Connie    hehhh heh      ⌈m-
7       Jane                     ⌊you do though don't    ⌈yer!
8       Connie                                           ⌊heh °hhh
9       Connie    heh °hhh m     ⌈(0.3) tuh (0.4) er (0.5) frie⌐nd,
                                 ⌊((points and looks at picture))
10      Jane                                             ⌊well you are the
11                youngest aren't yer
12      Connie    YEAH
13      Jane      ehhh    ⌈HEH HEH HEH HEH HEH
14      Connie          ⌊em (f)-
15  →             um,     ⌈(0.6) (f:) eh- mi          ⌈ddle one,
                          ⌊((points and looks at picture...   ⌊((looks back at Jane...
16  →             ⌈(0.2)
                  ⌊((Jane nods once, Connie drops pointing arm onto lap, index finger still extended...
17  →   Connie    m tuh forty years old,     ⌈(0.4) Valentine(s) day.
                                             ⌊...points extended finger towards Jane...
18                (0.3)
```

19	Jane	oh	⌈ is she
			⌊ ((Connie drops gesture))
20	Connie	yeah	
21	Jane	oh	⌈ right
22	Connie		⌊ m tuh we go (0.4) to: (.) Sa:vo:y (0.5) hotel.

In this extract, Connie again produces a turn that begins with a noun phrase followed by a comment, although here it takes her several attempts before she is able to produce her turn in the clear. Her first attempt begins at line 6 with the pre-beginning element '...m-', but she gets no further before Jane comes in with a redoing of her line 3 noticing about Connie's youthful appearance in the picture: 'you do though don't yer!' (line 7). Connie laughs in response (lines 8 and 9) before beginning for a second time with 'm (0.3) tuh (0.4) er (0.5) friend,' (line 9). She points and looks at the picture as she speaks. A turn-initial noun with continuative intonation is in evidence. Once more she loses the floor to Jane, who, having realised that Connie *is* in fact the youngest in the picture – her prior talk suggested that she thought Connie *wasn't* – wishes to display an accurate account: 'well you are the youngest aren't yer' (lines 10 and 11). After Connie's confirmation (line 12), Jane laughs at the misunderstanding. During this laughter, Connie signals for a third time that she will take a turn, producing the pre-beginning elements 'em (f)-' (line 14), but drops out once more as Jane continues laughing.

At line 15, Connie makes attempt number four, initiating a turn with a pre-beginning element 'um,...' which projects more talk to come, but does not at this point commit her to producing a particular kind of construction. This is followed by a 0.6 second pause during which Connie once more turns to and points at the picture. After an elongated phoneme and a cut-off filler, she produces the noun phrase '...middle one,...' (line 15), looking back at Jane as she does so, and leaving a short pause in the talk (line 16). During this pause, Jane makes a single emphatic nod to acknowledge the referring expression, and thus signals to Connie that she understands who is being talked about. Here then, as in Extract 1, the business of establishing reference becomes a sequence in its own right (Auer, 1984), with Connie offering a noun phrase and Jane receipting it. This is likely to be a consequence of the difficulty that Connie has had, over lines 6 to 14, in launching her turn, including an interruption by Jane after Connie proffered a first (different) turn-initial referring expression at line 9. Jane's receipt token assures Connie that she is now oriented to the referring expression, and to the turn-in-progress. Connie's noun phrase, *middle one*, distinguishes exactly which friend

she means via reference to the person's spatial location in the photo that has prompted the discussion.

Connie then offers the comment '...forty years old, (0.4) Valentine(s) day.' (line 17). It is more complex than that of Extract 1, consisting of an adjective phrase, *forty years old*, which functions as an assessment of age, followed by a temporal phrase, *Valentine's day*, which implicates the future.[9] After a 0.3 second pause (line 18), Jane responds to the news content of Connie's turn with a change of state token *oh* followed by a newsmark: 'oh is she' (line 19), to which Connie responds with 'yeah' (line 20). The present tense form of the newsmark signals that Jane has interpreted Connie's turn as referring to something that has yet to happen (compare *was she*). Jane subsequently marks receipt and acceptance of the information with: 'oh right' (line 21). This is overlapped by Connie beginning a new sequence of talk (see line 22), signalling that the prior sequence has ended.

As in Extract 1, the noun phrase and comment are packaged as a single turn via sequential, prosodic and pragmatic means. The fact that they are sequentially adjacent predisposes Jane to hear them as contextually related. The referring expression and the assessment are both produced with continuative intonation that projects a turn-in-progress, whilst the final element, the temporal phrase, is delivered with turn-final falling intonation. Additionally, in pragmatic terms, the construction fails to convey a complete action until a comment is delivered to accompany the noun phrase. Jane's minimal go-ahead nod after the noun phrase displays that she is oriented to the pragmatic projection of more talk to come at this point. It is interesting to note however, that a pragmatically projected point of completion arises after the assessment *forty years old*, since this could function as a comment in its own right on the referring expression *middle one*, without further elements being spoken. Connie succeeds in marking the construction as incomplete at this juncture by producing the assessment term with continuative intonation, and by lowering but holding frozen her pointing finger during the pause after the assessment, to signal that she is poised to say more (Streeck, 1993).

The sequential context in which Connie uses the noun-initial construction in Extract 2 is identical to that of Extract 1 – she initiates a new sequence that (i) presents a referring expression not previously talked about, and (ii) subsequently offers a newsworthy comment about it. The adjacency pair sequence initiated by Jane in lines

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[9] Their conversation takes place in January.

10-11 with 'well you are the youngest aren't yer!' is certainly *possibly* complete with the addition of Connie's second pair part confirmation at line 12. Whilst Jane's laughter may conceivably lead to sequence expansion, the talk that follows from Connie introduces a new person followed by a newsworthy comment about that person, and is clearly not a continuation of the previous sequence. Once again, as in Extract 1, Jane responds to Connie's talk as newsworthy, and thus she orients to it as a new sequence presenting new information. Although it presents a new referring expression, it is one of a set of previously discussed expressions 'friends in the photo', and this link is signalled by the use of tied terms: the spatial locator *middle*, tied to the context of the photograph, and the pronoun *one*, tied both to the prior talk and to the photograph.

In summary, a recurring phenomenon emerges from Connie's talk whereby certain turns are constructed with an isolated noun or noun phrase fronted to preliminary position in the turn, and followed by a comment. The fronted noun or noun phrase represents the Theme[10] of the state that is conveyed. If considered in the context of a sentence grammar, the turn construction is agrammatic – there is no verb. In this way, the construction differs from examples of topic-comment structure in non-aphasic conversation. However, the elements of the turn are successfully packaged as a single construction. This is achieved via sequential, prosodic and pragmatic means. In the extracts examined here, the construction is used by Connie to initiate a new sequence of talk that introduces a new referential item and then makes some newsworthy comment about it. Although the referring expression has not been discussed in the talk so far, it is one of a set of prior expressions. This results in it being identified via a tied term or terms. The sequence is designed to do the action of presenting news, and Jane can be seen to respond to it as newsworthy.

5.2.2 turn-initial temporal element: conveying the timing of an event

A few turns in Connie's talk have a temporal element fronted to turn-initial position, followed by an account of an event, a phenomenon noted in aphasic conversation by Bookless and Mortley (1996; see section 3.5.2.2, page 58). Examples will be presented in Extract 3 and Extract 4, below.[11]

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[10] This study uses the labels 'Actor', 'Theme', 'Goal' etc. (see Black and Chiat, 2003) as a convenient shorthand to distinguish the core participants in an event or state. However, one of the clinical assessments discussed in Chapters 6 and 8, the TRIP (see Appendix 4 for details), uses the labels 'Agent', 'Patient' and 'Benefactive' to structure its analysis, and for this reason they have been retained when discussing the TRIP data.

[11] Earlier analyses of these two extracts, and Extract 5 (page 86), were published in Beeke et al (2001a) and Beeke et al (2003a).

Prior to this extract, Jane has been telling Connie an amusing story about two of her neighbours. In line 1, this talk has lapsed.

```
1                    (2.9)
2        Connie   hh      ⌈ehhhhh
3        Jane            ⌊hhhhheh heh heh °hhh
4                    (1.4)
5    →   Connie   last week, (.) you go out?
6        Jane     erm (0.4) °just one weekend (a work) tha's all°
7        Connie   ⌈°(oh right)° hheh  hh
                  ⌊((Jane nods head and smiles))
8                 ⌈(1.1)
                  ⌊((Connie smiles at Jane, who is grimacing))
9        Jane     (I always) do tha(hhh)   ⌈ehHEH HEH heh heh heh      ⌉
                                           ⌊((silent laughter from Connie))  ⌋
10                   (0.3)
11       Jane     °hh yeah that's all I bin doin' 'part from (0.2) bit a decorating
12                   (0.8)
13       Jane     umm
14                   (1.0)
15       Jane     (yeah)
```

In line 5, Connie produces the turn 'last week, (.) you go out?'. The temporal noun phrase 'last week,...' is fronted to the start of the turn, and is delivered with continuative intonation, to indicate a turn-in-progress. After a micro-pause, she produces an account of an event: '...you go out?'. The account is constructed around the verb *go*, which acts as a structural 'anchoring point' (Black and Chiat, 2003) by virtue of the fact that it projects an argument structure. Thus, it becomes possible to identify the specific grammatical and semantic relationship between the verb and the words that precede and follow it. The verb appears to be a present tense form. The word *out* is marked as turn-final by final-rising intonation, as shown by the question mark in the transcript. This intonation serves to turn a grammatical statement into a question. If the turn structure was analysed with reference to a sentence grammar, it would be judged to be an agrammatic question format, either because of the lack of a dummy auxiliary (compare *last week did you go out?*) or because the verb is not marked for past tense (compare *last week you went out?*).

However, the turn is clearly designed to convey a question concerning a *past* event, despite lacking the syntax and/or morphology that a sentence grammar would deem necessary for the job. It achieves this meaning by virtue of questioning intonation and the presence of the temporal element in initial position, which signals temporal reference in a novel way by projecting the expression of an event in the past. The interactional success of this construction is clearly reflected in Jane's answer to the

question. She demonstrates that she has indeed interpreted the turn as referring to past events by talking about what she has *done* (not what she will do): 'erm (0.4) °just one weekend (a work) tha's all°' (line 6), '(I always) do tha(hhh)' (line 9) and '°hh yeah that's all I bin doin' 'part from (0.2) bit a decorating' (line 11).

The fronted temporal element resembles the type of story entry device described by Jefferson (1978), in 'normal' conversation, as a 'temporal locator'. A story entry device functions to mark the beginning of a story telling sequence, and acts to hold the conversational floor for an extended turn. As Jefferson states, stories themselves commonly arise from the sequential context of prior turns-at-talk, in that they are often produced precisely because they are linked to the topic of talk. If a story is unrelated to the prior context, then the speaker commonly signals that this is the case by delivering a turn-initial disjunct marker such as *oh* or *by the way* (Jefferson, 1978). All things considered, Connie's use of a temporal locator in this sequential position can be viewed as marked or unusual, because her turn does not constitute the beginning of a story telling, and neither does it link to prior context. Rather, it is part of a turn that initiates a completely new topic of talk via the first pair part of a question-answer adjacency pair sequence. The prior sequence has clearly lapsed at line 1, and no new sequence has been initiated by line 4. As there is no contextual link whatsoever between this turn and prior talk, a disjunct marker might be expectable, but no disjunct marker is produced. In this way, the novel construction resembles but is not identical to a non-aphasic conversational form. However, there is no evidence in subsequent talk to suggest that such a marked construction is problematic for mutual understanding.

Extract 4 contains a second example. The sequence of turns follows on from Extract 3:

Extract 4 Connie/Jane Jan00#6.*three tier wedding cake*

1	Jane	yeah that's all I bin doin' 'part from (0.2) bit a
2		decorating
3		(0.8)
4	Jane	umm
5		(1.0)
6	Jane	(yeah)=
7 →	Connie	⌈=tuh (0.2) Ju:lў nŏ- JU:NE, ŭm (0.2) tuh three: tie:r
		⌊*((pointing gesture...*
8 →		wedding cake, (0.2) ⌈ I: ⌉
		⌊*((points to herself))* ⌋
9 →		ma:ke it.⌊*((pointing gesture...*
10	Jane	=are ↑yuh ⌉
		((Connie's pointing gesture ends)) ⌋

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11	Connie	yeah
12		(0.3)
13	Jane	brilliant!

Connie initiates a turn at line 7 with the pre-beginning element *tuh* and after a 0.2 second pause she continues with a turn-initial temporal element, '...Juːlȳ...', which is immediately rejected and corrected '...nŏ- JUːNE,...'. The intonation of the corrected temporal element is continuative, as indicated by a comma in the transcript, projecting a turn-in-progress. The next element in the construction is a fronted noun phrase '...three: tieːr wedding cake,...' (lines 7-8), which is also produced with continuative intonation. The noun phrase is followed, after a 0.2 second pause, by an account of an event '...Iː maːke it.' (lines 8-9). Although the referring expression is in turn-second rather than turn-initial position, and is followed by an account of an event rather than a comment, the construction format subsequent to the temporal element resembles that of the turn-initial noun (phrase) structure examined in section 5.2.1 above.

The account is built around the verb *make*, which projects a two-argument structure, and thus makes explicit the grammatical and semantic relations between itself and the words *I* and *it*. The verb appears to be a present tense form. The account is marked as turn final via final falling intonation. The pronoun *it* is co-referential with the preceding noun phrase, *three tier wedding cake*, and thus grammatical linkage between the referring expression and the account exists. In this way, the construction resembles left-dislocation (Geluykens, 1992; see discussion, section 3.3.4, page 45). In addition to the part-grammatical links between noun phrase and account, sequential adjacency, prosody and pragmatics serve to package the elements into a single turn in the same way as for noun-initial turns (see section 5.2.1 above).

In this extract, as in Extract 3, interesting issues arise relating to the timing of the event that Connie describes. The verb *make* occurs in present tense form. However, it is clear from the context that Connie means to convey a future event. She does so by placing the temporal element in turn-initial position, as she did in Extract 3. The temporal element she uses, a month of the year, signals temporal reference by invoking the timing of the conversation itself. To arrive at the timing of the event, Jane is required to interpret *June* in the context of the current month, January. Jane's latched newsmark in line 10: 'are ↑yuh', and her subsequent assessment: 'brilliant!' (line 13) indicate that she has no difficulty interpreting this as a future event, despite the unconventional method of marking temporal reference; she says *are yuh* not *did yuh*.

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Despite its interactional success, Connie's turn would be classed as agrammatic with reference to a sentence grammar, because there is no future tense marker.

In Extract 4, as in Extract 3, a turn that begins with a temporal element is produced in the context of initiating a new topic of talk. As lines 3 to 6 demonstrate, the prior sequence of talk has lapsed, and no new sequence has been initiated. It could be argued that there is a loose link between Connie's news that she will be baking a cake for a wedding in June, and the prior topic, which concerned Jane's movements over the last week, in that both are 'newsworthy events', past or future, for the two to share on meeting up for a chat. However, there is no direct link between the events, and thus no shared context between prior and current talk. In addition, there is no obvious *signal* of the lack of contextual links between the new turn and prior talk, such as a disjunct marker. The same absence of a disjunct marker was noted in Extract 3.

What might be an explanation for this seeming lack of recipient design on Connie's part? It could be that the temporal element itself acts as a disjunct marker as well as a temporal reference marker. Foregrounding the temporal element may serve not only to indicate the timing of a projected event, but also to highlight that the temporal frame of the talk has shifted. Thus, whereas before, talk was concerned with X, the focus is now something *last week* (Extract 3) or in *June* (Extract 4). Such a temporal shift would certainly suggest that a new topic of talk might be upcoming, and would alert the recipient to this as a possibility. Since Jane has no difficulty in responding to Connie's topic initiations in Extract 3 and Extract 4, there is some evidence to suggest that the temporal element does indeed act as a disjunct marker.

In summary, a recurring phenomenon emerges from Connie's talk whereby a turn is constructed with an isolated temporal element fronted to preliminary position in the turn, followed by an account of an event. The turn is designed to initiate a new sequence that begins a new topic of talk. It may be no coincidence that the turn-initial temporal element occurs in a construction that has a verb and linked arguments, and is designed to convey a past or future event, but is hearably lacking past or future tense marking. In constructions where a verb is hearably missing, no initial temporal element is observed (see for example, the verb-less constructions discussed in section 5.2.1 above). In addition, when turns are sequentially grammatical, conveying tense via 'standard' grammatical means (see examples discussed in section 5.3 below), again no initial temporal element is observed. This suggests that the temporal element and the tense-less verb are closely linked. Of relevance is the distinction between making a *comment*, which expresses an opinion or a fact about a referential item, and conveying

an *event*, where time reference is a critical feature of meaning. When Connie comments on something, deploying a noun-initial construction, she does not give Jane temporal information. However, when she relates an event, it becomes crucial to tell Jane whether the event has already happened or is yet to occur in order for Jane to fully understand the meaning of the talk. In this situation, Connie uses a turn-initial temporal element. The temporal element-initial turn construction, therefore, may represent an adaptation which allows her to convey the timing of an event in the absence of tense marking.

Further evidence to support the idea that the deployment of a turn-initial temporal element may be interactionally beneficial can be found by analysing what happens when Connie attempts to express the timing of an event using sentential grammar, as she would have done prior to becoming aphasic. Extract 5, below, presents an example of how Connie's aphasia can cause tense to become an interactional problem that both she and Jane must work to resolve in order to achieve mutual understanding:

Extract 5 Connie/Jane Jan00#9.*tipperary*

At some points during this extract Jane's daughter, Ella, can be heard talking indistinctly in the background in overlap with Jane and Connie (transcribed as a series of Xs). She appears to be talking to Connie's cats. A short side sequence involving Ella and Jane has been omitted from the beginning of the sequence for the sake of clarity.

```
1         Jane      yeah my friend moved to Ireland  ⌈a couple of years ago
2         Connie                                     ⌊yeah?
                       .
                       .
                       .
3         Jane      °yeah°  ⌈she loves it
4         Connie            ⌊uh- W:HERE
5         Jane      (0.4) oh god (0.3) somewhere near Tipperary
6                   ⌈(0.5)
                    ⌊((a look of surprise spreads across Connie's face))
7         Jane      >°coun ⌈ty Ti  ⌉pp'rary ur sum  ⌈in°<
8    →    Connie          ⌊I::    ⌋                 ⌊(/bɘɹɪn/)
9    →              tuh Tipp(r)er  ⌈a:ry:
10        Ella                     ⌊°(XXXX)°
11   →    Jane      ⌈oh that's whe- you've bin
12        Ella      ⌊°(XXXXXXXXXXXXX)°
13   →    Connie    ⌈yeah,⌉
14        Ella      ⌊°(XX⌋XX)°=
15        Jane      =SHHHHH! °hhhh hhhh heh huh                    to Ella
16   →    Connie    um- (0.4) tuh- I go to wedding
17   →    Jane      oh      ⌈what-  ⌉what this ye  ⌈ar
18   →    Connie            ⌊yeah   ⌋             ⌊yeah yeah
19   →    Jane      oh tha's where yer    ⌈↑go↓in'
20   →    Connie                          ⌊yeah yea:h
21   →    Jane      o::h ri::ght!
22   →    Connie    °yeh°
```

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23			(0.3)
24	→	Jane	ohh!
25			(1.4)
26	→	Jane	aah!
27			(2.4)

In line 1, Jane initiates a new sequence of talk with an account of how a friend moved to Ireland. Connie asks whereabouts (line 4), and it is Jane's answer to this question, '…somewhere near Tipperary' (line 5) that triggers the turn of interest from Connie: 'I:: (/bəɹɪn/) tuh Tipp(r)era:ry:' (lines 8 and 9). The construction is sentential in nature, and contains a verb, '…(/bəɹɪn/)…' to act as an anchor by virtue of the fact that it invokes an argument structure. This distorted production is identifiable as a verb partly because it ends in /ɪn/, a segment hearable as the present progressive tense marker –*ing*, and partly because of its structural location between the pronoun *I* and the preposition *to*. Despite the fact that the verb's specific identity is obscured by production difficulties, it is possible to surmise that it has a 2-argument structure, the pronoun *I* being the Theme, and *Tipperary* the Goal.

In line 11, Jane demonstrates that she has interpreted Connie's turn as expressing an event that occurred in the past: 'oh that's where- you've bin'. Connie accepts this reading by producing a receipt token, *yeah*, in line 13, and the exchange seems entirely unproblematic. However, Connie then adds: '…I go to wedding' (line 16), an account that, on the face of it, appears to be designed to present Jane with further detail about her visit to Tipperary, but also causes the timing of the event expressed at lines 8-9 to emerge as a source of interactional trouble. Connie is now using a present tense verb, which is more suggestive of a *future* trip. This appears to contradict her previous receipt of Jane's *past* tense interpretation of the event. It seems plausible that by giving Jane more information, specifically the reason for her trip, Connie is attempting to trigger Jane's memory of a topic of talk that occurred several minutes earlier, at the beginning of their conversation, which concerned a weekend trip to a family wedding in Ireland (the exact place did not feature at this juncture).

In the turn that follows, Jane offers a second interpretation: 'oh what- what this year' (line 17), which demonstrates her sensitivity to the possibility that *go* invokes a future event.[12] After confirmation (line 18), Jane responds with the change of state token *oh* to indicate her newly acquired understanding: 'oh tha's where yer ↑go↓in''

---

[12] It is January.

(line 19). The design of the turn suggests that she has now made the link between the current talk and the previous discussion of a wedding, highlighting the place name as *new* information to be added to prior knowledge by fronting the pronoun *that*. With mutual understanding secured, Jane is finally in a position to respond to the newsworthiness of Connie's talk. She does so with 'o::h ri::ght!' (line 21), 'ohh!' (line 24) and 'aah!' (line 26).

This extract reveals how tense can become an interactional problem, the resolution of which requires much collaborative repair work on the part of both Connie and Jane. As a result of this trouble at talk, the issue of linguistic non-competence is raised (Wilkinson, 1995c; Wilkinson et al, 2003), as the focus of conversation shifts from the meaning of the talk to Connie's production problems, and the need to repair a misunderstanding caused by her aphasia. Given this, it would seem that the turn-initial temporal element is indeed advantageous in that it functions as an alternative method of doing temporal reference, with the potential to limit the disruption to interaction caused by Connie's aphasia.

5.3   SEQUENTIALLY GRAMMATICAL TURNS

So far, the analysis has focused on turns that rely either wholly or partially on sequential adjacency, prosody and pragmatics to package their elements into a single unit of meaning. However, not all turns in Connie's conversation are constructed in this way. Some consist of simple active sentences that are grammatically complete; they are not agrammatic in any way. Others, although they might be judged to be incomplete in terms of a sentence grammar, since they lack a verb, can also be viewed as grammatically complete given the sequential context in which they occur. They are subsentential but unmarked or 'normal' from the perspective of a positionally sensitive grammar (Schegloff, 1996a; Heeschen and Schegloff, 1999), and they resemble the elliptical sentences of a standard grammar (Quirk, Greenbaum, Leech and Svartvik, 1985). This section will discuss six examples of sequentially grammatical turns, and examine the sequential contexts in which they occur.

The following extract contains three examples of turns that are constructed as grammatically complete sentences (lines 10, 19 and 43), and one example of a subsentential but, in terms of sequential position, grammatically complete turn (line 27):

Extract 6 Connie/Jane Jan00#6.*sequentially grammatical turns about dumplings*

Connie has just finished telling Jane the story of why she dislikes dumplings. A short side sequence involving Ella and Jane has been omitted between lines 10 and 11 for the sake of clarity.

```
1       Jane      °oh right!° so that's why you don't like dumplings
2       Connie    °hheh°
3                 (0.4)
4       Jane      °o::h°
5                 (1.3)
6       Jane      °but they're lovely°
7                 ⌈(0.2)
                  ⌊((Connie smiles))
8       Connie    no!
9       Jane      heh heh
10  →   Connie    °hhh eh- how d'you ma:ke the:m.
                  .
                  .
                  .

11      Jane      just flour, s    ⌈uet
12      Connie                     ⌊yeah (0.4) yeah
13                (0.9)
14      Jane      bitta salt (1 syllable)
15      Connie    yeah
16                (2.2)
17      Jane      ehheh (yeah)
18                (0.9)
19  →   Connie    you like them?
                  {slow.............}
20      Jane      mmm!
21      Connie    ohh
22                (0.4)
23      Jane      'cept they don't come out right
24      Connie    (°m°)
25                (1.1)
26      Jane      °they ⌈go all° slop    ⌈py
27  →   Connie          ⌊°hhhhhhh        ⌊too much flour?
                                         {slow...............}
28                (1.0)
29      Jane      I dunno
30                (0.6)
31      Jane      °dunno°
32      Connie    ⌈°m°
33      Jane      ⌊°maybe it's cos I'm doin' them in the pressure cooker°
34      Connie    °yeah°
35      Jane      they normally come °out alright°
36                (2.2)
37      Jane      you  ⌈ain' got (a) pressure cooker
38      Connie         ⌊(yeh)
39                (0.8)
40      Connie    n    ⌈o no
41      Jane           ⌊nah
42                (1.8)
43  →   Connie    m- (0.2) mum has one
                  {slow............}
```

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```
44                     ⌈(1.1)
                       ⌊((Jane nods))
45        Jane         (°d'you eh-°) have you ever used one
46        Connie       n(h)o
47                     (0.2)
48        Jane         oh no
```

At line 10, Connie delivers the first turn of interest, the question '°hhh eh- how d'you ma:ke the:m.'. The turn is built as a syntactic question, with an initial WH-question word and the dummy auxiliary *do*. The verb *make* is used in the present tense, and its form requires no morphological inflection in order to be grammatically correct within this sentence. The result is a grammatically complete construction. The noun is expressed using a tied term (Sacks, 1992), the pronoun *them*. The identity of this tied term is easily recoverable from talk in line 1, which constitutes Jane's summary of Connie's prior story about why she doesn't like dumplings. It is Jane who first uses a tied term to refer to *dumplings* in line 6: '°but they're lovely°'. Given the sequential context, Connie's turn at line 10 would seem unusual or marked in some way if it contained the full noun form *dumplings* – the pronoun is the preferred form here.

Connie's turn initiates a new sequence of talk by providing the first pair part of a question-answer adjacency pair at a point where the prior sequence, which was doing assessment of dumplings (see lines 6 to 9) has closed down. Although it constitutes the beginning of a new sequence, Connie's question is designed to pursue the topic of *dumplings*, as was the prior sequence initiated by Jane at line 6. By using a pronoun to refer to *dumplings*, Connie succeeds in tying her sequence to Jane's prior, and via that to the prevailing topic. Jane responds with a second pair part answer in lines 11 and 14: 'just flour, suet...bitta salt...', which Connie receipts in line 15.

Connie's question at line 19, 'you like them?', follows a similar format. Again, it is a first pair part that opens a new sequence of talk at a point where the prior sequence, the question-answer adjacency pair discussed above, is closing down (lines 16, 17 and 18). Although it constitutes the beginning of a new sequence, Connie's question is once again designed as further on-topic talk of dumplings. This time the turn is built as a grammatical statement but transformed into a question via the use of turn-final rising pitch. The verb *like* is used in the present tense, and its form requires no morphological inflection in order to be grammatically correct. Once more, the referential item *dumplings* is expressed using a tied term. Although one might argue that the 'correct' utterance form for this position in the sequence is <u>*do you like them*</u>, Connie's version is, if not the most common grammatical form, at least an acceptable one for the sequential

context in which it occurs. Its production is notably slower than surrounding talk (see prosodic gloss of line 19).

The next grammatically complete turn in this extract comes after Jane's account of the difficulty she sometimes has with making dumplings: "cept they don't come out right' (line 23). Connie receipts this comment in line 24, and there follows a lapse in the talk of 1.1 seconds (line 25). After this lapse, both Jane and Connie start up, Jane marginally before Connie. Jane extends her account with '°they go all° sloppy' (line 26), while Connie comes in (in overlap) with the turn of interest, a question: '°hhhhhhh too much flour?' (line 27). Once again, Connie's turn is designed as a first pair part. It functions to open a new sequence that pursues the prior topic, which has moved on, following Jane's account in line 23, to difficulties in making dumplings. As the question serves to introduce a new referential item, the full form noun *flour* is used rather than a pronoun. As in line 19, Connie's production is markedly slower than the surrounding talk (see prosodic gloss of line 27). Connie's turn could be judged to be incomplete in terms of a sentence grammar, since it has no verb, but it constitutes a grammatically complete turn given the sequential context in which it occurs. It is what linguists might refer to as an elliptical utterance.

The final example of a grammatically complete turn in this extract is a comment that follows a complete question-answer sequence initiated by Jane with: 'you ain' got (a) pressure cooker' (line 37), and answered in the negative by Connie (see line 40). After a lapse in the talk of 1.8 seconds, Connie follows the sequence with an unsolicited comment: 'm- (0.2) mum has one' (line 43). The turn is a grammatically complete sentential construction. The term used to refer to the pressure cooker, the focus of immediately prior talk, is the pronoun *one*. By way of contrast, the noun *mum* is expressed in full, as it is new to the talk at this point. The verb *have* is used in the appropriate form for reference to third person, displaying that Connie has the ability to manipulate verbs accurately in certain turns at talk. This grammatical turn differs from the three discussed above; it is not a first pair part that entails a response from Jane. Rather it is an account that builds on the sequence initiated by Jane's question at line 37. It is interesting to note that, in common with the turns at lines 19 and 27, its production is hearably slower than surrounding talk (see prosodic gloss of line 43). Jane nods in receipt of the comment at line 44, and the talk lapses once again. Following this, Jane initiates a new sequence with a question at line 45.

Two further examples of sequentially grammatical turns, this time designed as punchlines, can be seen in Extract 7 and Extract 8, below:

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In line 1, Connie initiates a sequence concerned with a Christmas cake that she made and gave to Jane. The beginning of the sequence involves a repair which has been omitted in order to simplify the extract.

```
1        Connie   ⌈hm- you: (0.3) Christmas cake?
                  ⌊((points to Jane))

                    .

                    .

                    .

2        Connie   I gave (you) (0.2) Christmas cake=
3        Jane     =OH YEAH        ⌈I ATE THAT
4        Connie                   ⌊yeah?
5                 ye      ⌈ah yeah
6        Jane             ⌊oh god yeah °hh ⌈heh heh heh heh heh °hhh
7        Connie                           ⌊yeah
8        Jane     oh yeah we all ate th   ⌈at eh heh heh heh °hh
9        Connie                           ⌊yea::h heh
10       Jane     oh yeah that was nice=
11       Connie   ⌈=yeah
12       Jane     ⌊=(°different°)
13                (0.6)
14       Jane     ⌈yeah 'member the little square un
                  ⌊((Jane turns to talk to her daughter, Ella, making square shape with fingers))
15                ⌈(1.4)
                  ⌊((Jane holds gesture frozen, Connie looks at Ella))
16       Jane     ⌈yeah? (0.3) did you get a bit
                  ⌊((Connie looks at Jane then back to Ella, Jane holds gesture frozen))
17                ⌈(2.0)
                  ⌊((Connie looks at Ella))
18       Jane     you remember that little square one
19                (0.6)
20       Ella     yeah I remember seein' the square one
21       Jane     she didn't get a bit eh hah hah    ⌈hah hah hah hah ⌉
22   →   Connie                                      ⌊you: a:te i:t     ⌋a:ll
                                                     {precise articulation, syllable timed}
23       Ella     I never got any
24       Jane     ⌈°hh no.
25       Connie   ⌊°heh°
26                (0.3)
```

In this extract, Connie produces the grammatically complete turn 'you: a:te i:t a:ll' at line 22 as a humorous assessment of the question-answer sequence between Jane and her daughter Ella that has occurred over lines 14 to 21, about whether Ella had any of Connie's cake. At line 21, Jane receipts Ella's answer with an assessment followed by laughter that makes explicit the fact that she (Ella) didn't have any of the cake in question: 'she didn't get a bit eh hah hah hah hah hah hah'. This summarises the sequence so far, and thus raises the possibility of sequence closure. Connie's turn of interest begins in overlap with the laughter: 'you: a:te i:t a:ll' (line 22). The turn is designed to add to Jane's summary by assessing, in humorous fashion, the reason why

Ella did not get any of the Christmas cake, namely that Jane ate it all herself. Thus, it is designed to convey a punchline to the telling, and to contribute to closing down the sequence. Connie's articulation is hearably precise, and the utterance exhibits syllable timed speech. Both features result in the contribution standing out from the surrounding talk. Ella, in response, offers her own assessment at line 23 with: 'I never got any'. Jane confirms this to be the case (line 24), Connie laughs (line 25), and the sequence is brought to a close.

Connie's turn at line 22 is a grammatically complete sentential construction. The referential item *cake*, the focus of immediately prior talk, is conveyed via the tied term *it*, a pronoun. Another tied term, the second person pronoun *you*, is used to refer to Jane. The irregular verb *eat* is produced in the past tense form *ate*, again demonstrating that Connie is able to manipulate verbs with accuracy in certain contexts. It is interesting to note that Jane has twice made use of this verb form in the sequences prior to Connie's assessment – see lines 3 and 8. It seems not implausible to suggest that Jane's prior use of *ate* may increase the likelihood of Connie deploying it in subsequent talk.

A second example of a grammatical sequence-closing comment can be seen in Extract 8, below:

Extract 8 Connie/Jane Jan00#6.*I bake it specially*

Jane is bemoaning the fact that her Christmas cakes never seem to taste as nice as Connie's do, and she doesn't know why.

1	Jane	I dunno cos you
2		give me a reci ⌈pe dint ya=
3	Connie	⌊°yeah°
4		=YEah
5		(0.3)
6	Jane	I- (.) think I did that that year yeah (0.2) yeah I did
7		(0.2) but it dint come out moist=
8	Connie	=(m)=
9	Jane	=like yours
10		(0.3)
11	Jane	an' I wrapped it all up ⌈y'know
		⌊((mimes wrapping))
12	Connie	⌈yeah
13	Jane	⌊(just how you) said
14	Connie	eh- (1.0) e- (0.3) /pəm/ tuh (.) pa:per:?
15		(1.4)
16	Connie	eh- foi: ⌈l? ⌈yeah. ⌉
17	Jane	⌊foil ⌊yeah ⌋
18		(0.3)
19	Connie	cling/fɹim/?
20	Jane	yeah

```
21              (0.3)
22    Jane      done all that
23    Connie    °mmm°
24              (0.6)
25    Jane      it's still (0.6) dry
26  → Connie    I BAKE IT      ⌈SPECIALL              ⌈Y
                {laughing voice, slow, syllable timed...............................}
                               ⌊((points to self))
27    Jane                                            ⌊heh heh heh heh °hhh
28              you got special what you got a secret ingred ⌈ ient
29    Connie                                                 ⌊yeah
30              ⌈(0.5)
                ⌊((Connie shakes head, smiling))
31    Jane      ⌈uuhhhhh uh hheh heh huh °hhh   ⌉°hhhh
                ⌊((Connie shakes head, smiling)) ⌋
32    Connie    ⌈°hh
33    Jane      ⌊oh dear I don' know what I do
34              (1.4)
```

In this extract, as in Extract 7, Connie produces a grammatically complete turn as a humorous assessment at the end of a sequence of talk. Here the sequence is devoted to Jane's problems with baking a cake. Jane has provided an assessment of the problem in line 25 with 'it's still (0.6) dry', which serves to begin the process of closing the sequence down. It is in this sequential position that Connie offers 'I BAKE IT SPECIALLY' (line 26). The talk serves as a punchline by suggesting a humorous reason for the persistence of Jane's problems despite the fact that she follows Connie's recipe – Connie has a special method of baking. Connie's delivery of the turn is loud, syllable timed, and at a slower pace than surrounding talk, all of which serves to increase its salience. In addition, there is hearable laughter in her voice. Jane laughs in response, and then picks up the topic of a 'special process' by initiating a new sequence with the comment: '...you got special what you got a secret ingredient' (line 28). After mutual smiling and laughter in lines 29 to 31, Jane makes another closing assessment: 'oh dear I don' know what I do' (line 33), and the talk lapses (see line 34).

Connie's turn at line 26 is a grammatically complete sentential construction. A tied term, *it*, is used to refer to the cake, the focus of immediately prior talk. The verb *bake* is used in the present tense, and its form requires no morphological inflection in order to be grammatically correct. The construction of this turn stands in marked contrast to the grammatically spare turns in lines 14, 16 and 19, in which a series of single nouns is used to convey the process of wrapping up the cake to keep it moist.

The six examples of grammatical turns discussed in this section progress smoothly to completion without the occurrence of self-repair or excessive pausing, and

they constitute grammatically complete utterances when considered in terms of a positionally sensitive grammar. Five of the six are sentential grammatical constructions containing an appropriate verb form. The sixth is a clausal construction which, although lacking a verb, is perfectly acceptable in sequential context (it is elliptical). Interestingly, four of the six examples are delivered at a pace that is hearably slower than surrounding talk, and the two that function as punchlines display syllable timing. Each of these grammatical turns shares a common feature – it is designed to initiate a new sequence that is symbiotic with the prior sequence, tied to it via the use of pronouns. Thus, in Extract 6, each of the turns examined initiates a new sequence whilst making use of a tying technique involving pronouns to link it to the prior sequence. Similarly, both assessment turns investigated in Extract 7 and Extract 8 are subsequent to, and dependent on the prior sequence for the meaning of their pronoun(s) and also for their status as a punchline. For Connie, this particular type of turn seems to have advantages – each of the tied utterances she constructs in these extracts displays 'normal', non-agrammatic sequential grammar along with relatively smooth temporal progressivity. This may be due to a reduction in processing, since such turns, by their very design, free her from the need to produce and integrate full noun forms within grammatical utterances. This factor, first suggested by Wilkinson et al (2003), may explain Connie's ability to successfully manipulate grammar, particularly verb forms, in such turns.

Another potentially advantageous feature of such turns arises out of the fact that they initiate a new sequence, and thus neither their presence nor content is constrained by the turn that has gone before. None of the turns discussed here constitutes an adjacency pair second part made specially relevant by a first pair part, such as an answer to a question, an acceptance/decline to an invitation, a self-repair to an 'other' repair technique etc., where the delay or absence of the second pair part becomes attributable (see section 3.2.1, page 37). Rather, the type of turn seen here is minimally constrained, and relatively 'optional'. In the sequential position in which each is produced, Connie may self-select to speak or she may legitimately pass up the opportunity to take a turn without any silence being attributed to her failure to respond. Should she self-select, she has the option to produce a full turn or a minimal, passing turn. Should she produce a full turn, the *content* is not dictated by a prior turn, as would be the case if she were answering a question, for example. The turn's *form* may be constrained, in that a pronoun may be needed to tie it to the prior sequence, but this seems to incur a benefit, as discussed above, rather than impose a problem. All examples investigated here are

positioned at points where a prior sequence is moving towards closure, or has lapsed, as signalled by a gap in the talk. The end-of-sequence position may be beneficial for Connie, in that it affords her much more *time* to plan and deliver a grammatical turn at talk than the temporally pressured response position does. But perhaps more fundamental than this, there is no constraint on her to produce a turn *at all*. If the option to talk is taken up, there is no constraint on content – she could decide to initiate a completely new topic. Thus, it seems that sequential contexts that are less pressured in terms of the pace of talk and less constrained in terms of turn content can alleviate Connie's agrammatism to the point where it is no longer a visible problem. This is not to suggest that these utterances are 'easy' for her to construct, however. The marked prosodic features – slow delivery and syllable timing – shared by most attest to the continuing presence of aphasic difficulties at some level(s) of production. Given that some sequential contexts have been shown to relieve Connie's agrammatism, it may be the case that others have a less beneficial effect. This issue will now be explored in section 5.4, below.

5.4 PROBLEMS WITH TURN CONSTRUCTION

Sections 5.2 and 5.3 above discussed novel and sequentially grammatical turn construction formats, respectively. The analysis now moves on to consider turn constructions that occasion next-turn repair by Jane. In such repair sequences, Jane can be seen to have problems with the sense of Connie's turn as a result of the aphasia. In Extract 9 the trouble source is a production problem, whereas in Extract 10, Extract 11 and Extract 12, difficulties arise as a result of the way in which Connie constructs her turn.

Extract 9 Connie/Jane Jan00additional#2.*she prepares it*

Prior to this extract Jane and Connie have been discussing Connie's mother, and the fact that she no longer has meals on wheels.

1	Jane	(s')you do her dinner
2	Connie	ye::s (.) yĕh
3		⌈(0.5
		⌊*((Connie extends index finger towards Jane, arm resting on leg...))*
4	Connie	⌈°hh um- (0.3) she::, /pɛpɛ:(d)ʌts/.
			{slow, syllable timed...}
		⌊*((index finger extended......................))*
5		⌈(0.9)
		⌊*((Connie's index finger extended...))*
6	→ Jane	⌈she::,
		⌊*((Connie's index finger extended...))*

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7		Connie	⌈(0.3) /pɛpɛːdʌz/
			│ {slow, syllable timed}
			⌊((moves extended finger up and down in emphasis))
8			⌈(0.6)
			⌊((Connie's index finger extended...))
9		Connie	⌈potatoes (m), (.) carrots,
			│ {slow, syllable timed }
			⌊((does 'flourish' with hand to emphasise each word))
10			(1.8)
11		Jane	>(pu)tatoes an' ⌉ carrots,<=
			((Connie drops hand gesture)) ⌋
12		Connie	=yeh=
13	→	Jane	=>wha' wuz tha' first bit y'said?<
14		Connie	⌈(0.2) °hh /pɛːpɛːɹ(.)ɪt/
			│ {very slow, syllable timed}
			⌊((moves arm closer to Jane, extends index finger and moves it in time with each syllable))
15			⌈(1.1)
			⌊((Connie's index finger extended...))
16		Jane	⌈ O H P R E P A R E i t ! ⌉
17		Connie	│(1 syllable) ⌉⌈yeh yeh ⌋=
			⌊((flicks finger back and forth between self and Jane)) ⌋⌊((drops gesture, nods))
18	→	Jane	=oh you do=
19		Connie	=yĕh= ⌈/yɪ/,-=(you,-) ⌉⌈m- tuh (0.9) mum.
			⌊((points all fingers to self)) ⌋⌊((extends index finger, holds frozen))
20			⌈(0.4)
			⌊...gesture frozen...
21	→	Jane	oh she ⌈du- ⌉=
			│ ((Connie drops gesture)) │
22		Connie	⌊°(yeh)° ⌋
23	→	Jane	=oh sh ⌈e prepares it ⌉
24		Connie	⌊>yeh yeh< y ⌋eh
25	→	Jane	an' you cook it=
26		Connie	=°hh (m) ⌈ca:::n ⌉ do it
			⌊((holds out open palm towards Jane)) ⌋
27			⌈(0.4)
			⌊((Jane begins to nod))
28		Jane	↑ri ⌈:::ght
29		Connie	⌊yeh
30			(1.5)
31		Connie	⌈°hmmm°
			⌊((smiles))
32		Jane	so when does she come home (.) what time

In line 4, following the close of the prior question-answer sequence (lines 1, 2 and 3), Connie initiates a new sequence, '°hh um- (0.3) she::, /pɛpɛː(d)ʌts/.', which is tied to the preceding talk via the pronoun *she*. Thus, Connie signals that her mother is still the ongoing topic of talk. Her production is slow and, because it is syllable timed, it is difficult to hear word boundaries. In line 6, after a pause of 0.9 seconds, Jane initiates repair on Connie's turn with 'she::,', the partial repeat locating the trouble source as '/pɛpɛː(d)ʌts/.'. The elongated vowel and the continuative intonation of Jane's repair

initiator serve to present Connie with an overt place for self-repair. Connie takes the opportunity to self-repair by repeating the trouble source: '(0.3) /pɛpɛːdʌz/' (line 7). Her production alters only slightly, with a clear alveolar plosive /d/ at what sounds like the beginning of a third syllable. The first attempt at this sound was indistinct, hence the single brackets in the transcript at line 4. In addition there is, at the end of the talk, a voiced fricative, /z/, where before the voiceless form was preceded by an alveolar plosive, resulting in the sound combination /ts/ (line 4).

A pause of 0.6 seconds ensues (line 8). No display of understanding from Jane is forthcoming in response to Connie's self repair. Subsequently, Connie adds 'potatoes (m), (.) carrots,' (line 9). After a 1.8 second pause, Jane responds by repeating Connie's turn at line 9: '>(pu)tatoes an' carrots,<' (line 11), at a speed which is hearably faster than surrounding talk. Connie treats this as an understanding check by confirming its accuracy in line 12 with a latched 'yeh'. Jane quickly follows this up with a second overt repair initiator: '>wha' wuz tha' first bit y'said?<' (line 13), which serves to locate the same trouble source as before; Jane still has not understood '/pɛpɛː(d)ʌts/.' (line 4), or the second version at line 7. After a 0.2 second pause, Connie makes a third attempt, producing '/pɛːpɛːɹ(.)ɪt/' (line 14). This time there is a micro-pause between the first two syllables and the third, and thus, there are now two hearably distinct words. The first word ends with the approximant /ɹ/ rather than a plosive, and the second word is hearable as the pronoun *it*. Even though this is a clearer approximation of what Connie is trying to say, it still takes time for Jane to make sense of it. Thus, a 1.1 second pause ensues before Jane is able to offer a candidate understanding 'OH PREPARE it!' (line 16). Connie, meanwhile, hearing the delayed response, offers an unintelligible syllable (line 17), which comes off in overlap with Jane's understanding check. Once she registers what Jane is saying, however, she abandons her turn to confirm the accuracy of the understanding check with 'yeh yeh' (line 17).

Having resolved her problem with the meaning of '/pɛpɛː(d)ʌts/.', Jane goes on to produce another understanding check: '=oh you do' (line 18). This is latched to Connie's prior confirmation, and locates as the trouble source the *Actor* of Connie's turn. It seems that the original reference to *she* (line 4) has become 'lost' to Jane during the sequence of turns that were necessary to accomplish the repair caused by Connie's distorted production of *prepare it*. Connie's response in line 19 comes quickly (it is latched to Jane's understanding check) and is initially confirmatory: '=yĕh...'. Her turn continues however with cut-off elements, fillers and a pause of 0.9 seconds, all of which

signals that self-repair is under way. She completes the turn with the noun *mum*: '=/yɪ/,-=(you,-) m- tuh 0.9 mum.' (line 19). After a 0.4 second pause, Jane offers a second check based on Connie's prior turn: 'oh she du-=oh she prepares it' (lines 21 and 23), which Connie takes the opportunity to confirm in overlap (see lines 22 and 24). Thus, Connie's *mum* at line 19 causes Jane to reject her candidate understanding of line 18, despite the fact that Connie initially confirms it with *yeh*. Jane offers one final understanding check at line 25 with: 'an' you cook it', which Connie does not explicitly confirm or reject. Rather, she follows it with an account: '°hh (m) ca:::n do it' (line 26), accompanied by a gesture where she holds out her hand, with the palm up and fingers spread. It is not clear whether this account, which lacks an Actor, is a reference to Connie herself not being able to do *it*, i.e. *prepare* the vegetables, because of her paralysed right hand and arm, or whether it is Connie's *mum* who can't *cook*. Jane chooses to nod in receipt of this account. Only then does she finally respond to the newsworthiness of Connie's original comment *she prepare it* with '↑ri:::ght' (line 28). After a receipt by Connie at line 29, a pause and a minimal turn, Jane initiates a new sequence with a question (see line 32), and the talk moves on.

The interactional problem in this sequence is clearly caused by Connie's distorted production of the words *prepare it*. It requires three repeats, plus additional context in the form of related information, the names of two vegetables, before Jane is able to 'hear' the words for what they are. It seems likely that the combination of distorted phonemes and syllable timed speech compounds Jane's difficulty with understanding by obscuring not only the identity of the words, but also the word boundaries themselves. It is noticeable that Jane is unable to offer any kind of reading of Connie's turn, even with additional contextual information, until Connie manages to produce a micro-pause between the first two syllables and the third, in the third repeat at line 14. Only then is Jane able to demonstrate that she can make sense of the talk.

Extract 10 below, contains a repair sequence that arises not as a result of a production problem, but due to the way in which Connie's turn is constructed:

Extract 10 Connie/Jane Jan00#8.*so it's not how much fat you put in*

Connie and Jane have been discussing what makes a cake moist.

1	Jane	so it's not how much fat ⌈you put in
2	Connie	⌊nah no
3		(2.5)
4	Jane	an' that will make it dry if you over-mix it
5	Connie	yes yes

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```
6              (1.6)
7     Jane     °oh°
8              (1.7)
9     Jane     ⌈°(2 syllables)°  ⌉°(1 syllable)
10    Connie   ⌊°hh m tuh        ⌋
11             ⌈(0.3)
              ⌊((Connie gazes to middle distance, extends arm, pinches index finger and thumb...
12    Jane     ⌈°(m?)°
              ⌊...Connie looks at her fingers, then back to middle distance...
13    Connie   (.) f:lou:-    ⌈um (0.4) °hh eh-              ⌈sugar,        ⌉
                             ⌊((very slight head shake, releases pinch... ⌊...dips hand))⌋
14             ⌈umm            ⌉        ⌈marga       ⌈rine (0.3)          ⌉
              ⌊((Jane nods))   ⌋        ⌊((Connie dips hand))⌊((Jane nods))        ⌋
15             ⌈/mɪdʒɪz/.
              ⌊((Connie rotates extended index finger once...
16             ⌈(1.3)
              ⌊((Jane nods, Connie looks intently at Jane, body and hand held still...
17    Connie   m-      ⌈tuh (0.4)
                      ⌊...looks at hand, pinches finger and thumb...
18             ⌈dry:
              ⌊...opens hand, holds it vertical, thumb pointing up, raises and dips fingers...
19             ⌈(2.9)
              ⌊((Connie holds hand still, gazing intently at Jane, then spreads and closes fingers...
20  → Jane     ⌈°>wodya mean<°
              ⌊((very slight head shake))
21    Connie   ⌈°m,° (0.4) tuh  ⌈(0.4) not    ⌈too      ⌈dry
              ⌊...hand frozen...  ⌊...spreads fingers... ⌊...dips hand...    ⌊...closes fingers..
22             ⌈(0.4)
              ⌊...Connie holds hand posture frozen, gazing intently at Jane))
23    Jane     what yer-    ⌈yer sugar and  ⌈margarine
                           ⌊((does a 'mixing' gesture...........
24    Connie                               ⌈YE::S
                                          ⌊((nods...
25             ⌈ye::s
              ⌊...nods, Jane holds posture for 'mixing' gesture frozen))
26    Jane     ⌈it's gotta                ⌈be quite
              ⌊...Jane repeats 'mixing' gesture...  ⌊((Connie nods...
27    Connie   ⌈YE::S
              ⌊...continues to nod, Jane continues 'mixing' gesture))
28    Jane     ⌈sloppy
              ⌊...Connie continues to nod...
29    Connie   ⌈yeah
              ⌊...continues to nod...
30             ⌈(0.4)
              ⌊...Connie continues to nod))
31    Jane     ⌈oh is it?
              ⌊((eyebrow flash))
32    Connie   ⌈°yeah.°
              ⌊((nods))
33    Jane     °oh right!°
34             (1.7)
```

Connie and Jane have been discussing baking, and specifically what it is that makes a cake moist. Jane has been checking her understanding of this in lines 1 and 4. Lengthy

lapses at lines 3, 6 and 8 suggest that the sequence has ended. After the 1.7 second silence at line 8, both Connie and Jane initiate new sequences, in overlap. Connie produces, in pre-beginning position, an audible inbreath followed by: 'm tuh' (line 10), whilst gazing to the middle distance and beginning a gesture. These pre-beginning elements function to initiate a new sequence without beginning a specific turn construction unit. It is not possible to discern what Jane says (see line 9). A 0.3 second pause ensues during which Connie continues to gaze to the middle distance, indicating that she is involved in a word search. At this point, Jane produces a brief, quiet minimal turn ('°(m?)°', line 12). This acts as a go-ahead, signalling that Jane has abandoned her own bid for the floor, and is attending to Connie's turn-in-progress. Connie then delivers: '(.) f:lou:- um (0.4) °hh eh- sugar, umm margarine, (0.3) /mɪdʒɪz/.' (lines 13 to 15). The first noun, *flour*, is cut-off and self-repaired to *sugar*. The fact that the nouns are produced as full forms rather than pronouns indicates that they have not previously been mentioned in the talk. Turn construction resembles the noun-initial structure discussed in section 5.2.1 above, but here there are two adjacent nouns in initial position: *sugar* and *margarine*. Both are produced with continuative intonation, indicating a turn-in-progress, and both are receipted by nods from Jane as the turn progresses (see gloss of line 14). Thus, establishing reference becomes an interactional sequence in its own right (Auer, 1984) for each referring expression, as it does in the noun-initial constructions of section 5.2.1. The nouns are followed by a phonemically distorted two-syllable lexical item with turn-final falling intonation: '.../mɪdʒɪz/.' (line 15), in what appears to be the 'comment' slot. The gesture accompanying this item, a rotation of Connie's extended index finger, is suggestive of mixing. The construction has no identifiable verb, and thus there are no grammatical links between the three elements. However, prosody serves to package them together into one construction. Regardless of whether or not '/mɪdʒɪz/.' is designed as a comment about the nouns *sugar* and *margarine*, its distorted production is a problem for Jane, because it masks the sense of the turn as a whole. Jane is left wondering 'what is it about sugar and margarine that I should be responding to?'.

In the 1.3 second pause that follows Connie's turn (see line 16), Jane again nods, in a move that signals receipt of prior talk (but not necessarily understanding, as it later becomes clear). More crucially, she passes up the opportunity to take a full turn, and thus prompts Connie to continue. And this is what Connie does, extending her turn with a comment in the form of an assessment 'm- tuh (0.4) dry:' (lines 17 and 18). A lengthy

pause of 2.9 seconds ensues (line 19), during which Connie gazes fixedly at Jane, initially with her gesturing hand held frozen, but then she opens and closes her fingers once. Connie looks as if she is waiting for Jane to move into speakership. Jane, for her part, is gazing fixedly at Connie, and gives no indication that she will take a turn.

After nearly 3 seconds of silence, Jane initiates repair with '°>wodya mean<°' (line 20). This initiator technique identifies the trouble as a pervasive problem with the meaning of the turn as a whole, rather than a discrete difficulty with a specific word or words. Connie immediately launches a self-repair, saying '°m,° (0.4) tuh (0.4) not too dry' (line 21). The design of the repair suggests that Connie has understood Jane's problem to be with '...dry' (line 18), rather than with the prior talk at lines 13 to 15. After a 0.4 second pause, Jane offers a second repair at line 23, this time in the form of an understanding check designed to clarify the link between Connie's comment and the nouns from lines 13 and 14: 'what yer- yer sugar and margarine'. In her effort to understand, she incorporates a reading of Connie's gesture at line 15, producing her own 'mixing' gesture as she says '...yer sugar...'. Connie is quick to confirm Jane's understanding, doing so at the point at which she first recognises Jane's meaning – her 'YE::S' at line 24 occurs in overlap with *margarine* – and again after Jane's turn is complete ('ye::s', line 25). Jane pursues the repair still further, offering a second understanding check: 'it's gotta be quite...sloppy' (lines 26 and 28), this time to clarify the meaning of Connie's talk as a whole. The understanding check takes the form of an assessment, Jane's own description of the state of the nouns in question. Again, Connie is early with her confirmation, producing the first receipt token, 'YE::S' (line 27), before she has even heard Jane's assessment term *sloppy*. A second receipt token occurs after Jane's turn is complete. At line 31, Jane finally responds to the full sense of Connie's turn with a receipt and newsmark: 'oh is it?', to which Connie's response is a minimal '°yeah.°' (line 32). Jane marks receipt and acceptance of this information with '°oh right!°' (line 33), and the talk lapses. It is interesting to note that at no point in the resolution of this repair sequence have Jane or Connie attempted to focus on '/mɪdʒɪz/.' as an explicit problem that needs addressing (compare this with the approach taken in Extract 9).

The source of interactional difficulty here seems to be the way in which Connie constructs her turn at talk at lines 13 to 15 and lines 17 and 18, and also her production problem at line 15. These two factors interact to impact on Jane's ability to understand the turn as a whole. The turn at lines 13 to 15 lacks sense because it is not possible to

identify what the relation is between the distorted final word and the nouns. The turn's

full form referring expressions signal that the sequence is designed to introduce Jane to

new information, and it may be this, in combination with the agrammatic structure and

the production problem, that makes interpreting the talk particularly difficult. Jane's

passing turn at line 16 draws out further talk from Connie, however the adjective

Connie then produces at line 18 does little to clarify the meaning of her turn. Whilst it

is clear that this additional talk is doing the action of assessing, it is not clear how it fits

with the prior part of the turn. In the face of these difficulties, it is not surprising that

Jane initiates repair. The technique she deploys calls attention to the literal meaning of

Connie's talk as a whole, and thus suggests a problem in excess of trouble confined to a

specific word within the prior turn. In the light of this, Connie's subsequent self-repair

is interesting, because it treats *dry* as the problem, rather than literal meaning as a

whole. It is the subsequent series of understanding checks from Jane that drive the

repair sequence to a successful completion.

Extract 11, below, contains a second example of how an interactional difficulty

can arise from the way in which Connie constructs a turn at talk:

Extract 11 Connie/Jane Jan00#7.*she looks young*

Prior to this extract, Jane has just asked Connie how old Humbug the cat is. The other two cats are called Pernod and Sootie.

```
1         Jane      and how old're the other two
2         Connie    (0.2) tuhh um tuh eigh:tee:n!
3         Jane      (.) eighT⌈EEN!
4         Connie             ⌊{ye}a::h
                              {falsetto}
5         Jane      you're jo::        ⌈kin'
6         Connie                       ⌊yeah
7                   (.)
8         Connie    ⌈Pernod ⌉
9         Jane      ⌊is that ⌋ Sooty
10        Connie    nuh-    ⌈Pernod ⌉ yea::h
11        Jane              ⌊Pernod!⌋
12                  eigh ⌈tee::n!          ⌉
13        Connie        ⌊uh- yĕh-          ⌋ eh (y)oung, (0.3) (/pə/)=cat.
14                  (0.6)
15    →   Jane      whuh?
16                  (0.3)
17        Connie    young.
18                  (0.4)
19        Jane      y↑o↓ung
20        Connie    YEAH
21                  (0.6)
22        Jane      what eighteen
23        Connie    YEH.
```

```
24                  ⌈(1.5)
                    ⌊((mutual gaze, Jane does a small smile))
25      Connie      ⌈y- you: ⌉
26      Ella        ⌊°XXX° ⌊°XXX°
27      Connie      m tuh
28      Ella        °XXXXX°
29      Connie      eh- (1.8) m- she: look young.
30      Jane        oh she LOOKS ⌈young ↑ye↓a::h ⌉
31      Connie                   ⌊YEAH yeh    ⌋yeh=
32      Jane        =cor I didn't think she was >that (age)<=
33                  ⌈=I'd 'a' thought the other one'duh been
34      Connie      ⌊=um-
35      Jane        eight ⌈een    ⌉
36      Connie            ⌊no    ⌋ hhehhhhhhhhh °hhh °hehh°
```

In this extract, the turn that causes Jane to initiate repair is an account for the surprising news that Pernod the cat is eighteen years old. This information has been established and remarked upon as highly newsworthy over lines 1 to 12. At line 13, Connie offers: '...eh- (y)oung, (0.3) (/pə/)=cat.'. Her turn is designed with an assessment adjective in turn-initial position with continuative intonation, followed by a full form noun, *cat*, with final falling intonation. The use of a full form, rather than a pronoun, suggests that Connie is introducing a referential item that has not been part of the prior talk; that *cat* may not refer to the same entity as *Pernod* (the focus of talk in lines 9-11).

Jane initiates repair with 'whuh?' (line 15). This form of repair initiation is referred to by Drew (1997) as 'open' class, in that it treats the whole of the prior turn as in some way problematic, rather than pinpointing a specific trouble source within the turn. Drew discusses how open forms of repair initiation can be deployed when the recipient wishes to convey a lack of understanding of the turn as a whole. Connie responds to Jane's repair initiation by repeating *young*, which suggests that she has interpreted the request for repair to be directed at her somewhat distorted production – the initial phoneme is 'slushy'; somewhere between /l/ and /y/. Thus, Connie does not pick up on the trouble as being the construction's lack of sense (clearly eighteen is *not* young), and Jane's problem persists.

After a 0.4 second pause, Jane repeats the assessment adjective with marked rise-fall intonation in such a way that she sounds disbelieving (line 19). This signals her recognition of the word, but at the same time suggests that she still can't understand its meaning. Connie responds by confirming the word for a second time; her response is loud, and sounds very firm, almost curt: 'YEAH' (line 20). She still doesn't display any grasp of Jane's problem with the illogicality of the account, and she makes no attempt to

take anything more than a minimal confirmatory turn. A further 0.6 seconds elapses (line 21).

Faced with an unresolved problem, Jane once more initiates repair, this time by offering a more specific attempt to pinpoint the nature of the trouble: 'what eighteen' (line 22). By re-stating the age of the cat (which has not been mentioned for five turns) after Connie has just re-confirmed the adjective *young* for the second time, Jane brings into close sequential proximity the two problematic elements of Connie's account. Thus, she re-presents the key elements of the trouble for Connie to reassess and repair for herself, rather than actually stating what the problem is or offering a correction. By proceeding in this way, Jane may be attempting to minimise the competence issues that are surfacing because of Connie's puzzling inability to perceive what is needed to resolve the repair.

However, despite Jane's efforts, Connie still fails to address the problem of logical meaning. Rather, she treats Jane's repair as an understanding check, confirming it with 'YEH' (line 23). In the face of Connie's continuing minimal responses, Jane curtails her attempts to elicit repair. The 1.5 second lapse that follows at line 24 is taken up with mutual gaze, and a slight smile from Jane, which serves to pass the floor back to Connie.

It is only when Jane is no longer taking an active role in the repair that Connie begins a long-overdue revision of her original account: 'y- you:...m- tuh...eh- (1.8) m- she: look young.' (lines 25, 27 and 29). She interrupts her repair twice in the face of indistinct talk from Ella (see lines 26 and 28), who is behind the camera, playing with the cats. Connie's revision of the original problem construction contains a verb, and thus locates its absence in line 13 as the source of interactional trouble. It is interesting to note that Connie stresses not the verb but the turn-final adjective, as if she is countering a prior contrasting adjective such as *old*. It has been argued in the aphasiological literature that some people with Broca's aphasia have impaired control of stress, which results in syllable by syllable delivery (Goodglass, 1993), and indeed Connie's talk can exhibit such syllable timed delivery (see, for example, Extract 9, page 96, lines 4, 7, 9 and 14). The counter-intuitive stress pattern of *young* could conceivably be an overt manifestation of some prosodic impairment.[13] Whatever the

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[13]Peppé (personal communication) remarks that Connie has a tendency to accent turn-final words, even when pre-final accenting would seem to be communicatively relevant. The account at lines 25 and 27 is one of a handful of instances of this phenomenon that can be found in her conversation. The potential interactional consequences of this and other 'impaired' prosodic phenomena constitute a potentially fruitful area for future investigation.

explanation for the stress pattern might be, here it is of no interactional consequence. Jane is able to display full understanding with 'oh she LOOKS young ↑ye↓a::h' (line 30). By producing *looks* at greater volume than the surrounding talk, she highlights what she now understands to have been the original trouble source. The increase in volume may also serve as a comment on the lack of stress accorded to *look* by Connie.

The interactional problem in this extract is revealed to be the absence of a verb. When Connie eventually supplies the state verb *look*, the account makes literal sense without any other additions or alterations. It is interesting to note that it takes Connie some time to engage in repairing the illogicality of her original account. Her persistent treatment of Jane's repair initiations as straightforward understanding checks that require confirmation displays a strange lack of engagement with the cause of the interactional difficulty. Connie succeeds in repairing her turn only after Jane signals that she has abandoned the repair sequence. In sequential terms, Jane's decision to end the repair sequence means there is no longer any constraint on Connie to produce a second pair part self-repair following a first pair part other-initiation of repair – she is no longer accountable for repairing her talk at line 13, and can choose to join Jane in abandoning the repair sequence. It is in this context that she produces an almost grammatical turn at talk, *she look young*, that constitutes a repair of line 13. She does not do this when attempting to self-repair in second pair part position at lines 17, 20 and 23. This extract then, provides evidence, to be added to that of section 5.3 above, that Connie demonstrates an increased ability to be grammatical when initiating a sequence after the preceding one has lapsed, in a sequential position where there is no constraint on what follows.

In the final extract in this section, Extract 12, below, it is *Jane's* turn construction that causes difficulty for *Connie*. This leads to a misunderstanding by Connie, and a third position repair by Jane:

Extract 12 Connie/Jane Jan00#8.*I don't know how you get the Christmas cakes like that*

During lines 1 to 7, Connie and Jane discuss a cake that Connie gave Jane for Christmas, which was unusual because it was small and square. This part of the extract has been simplified for clarity. Approximately two minutes later, Jane returns to the topic of Connie's Christmas cakes. This part of the extract begins at line 9.

1	Connie	I gave (you) (0.2) christmas cake=
2	Jane	=OH YEAH I ATE THAT
		.
		.
		.
3	Jane	oh yeah that was <u>nice</u>=
4	Connie	=yeah

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5	Jane	=°(different)°

6   (0.6)

7   ⌈yeah 'member the little square un

    ⌊*((Jane turns to talk to her daughter, Ella, making square shape with fingers))*

·
·
·

8   (0.9)

9	Jane	your cakes are n(h)ice heh
10	Connie	°(heh)°
11	Jane	don't know how you get the (.) Christmas cakes like
12		that cos I can't (do it)

13   ⌈(0.2)

    ⌊*((Jane shakes head, Connie holds hand out vertically, fingers pointing towards J..))*

14	Connie	⌈m- square?

    ⌊*...holds hand position frozen...*

15   ⌈(1.4)   ⌉

    ⌊*...hand still frozen, mutual gaze, no facial or body movement by either...* ⌋

16	Jane	square.
17	Connie	⌈yeh,

    ⌊*...releases hand position, does a brief 'flourish' with hand...*

18   ⌈(.) round o::nes,

    ⌊*...another brief flourish as says "round", hand remains extended...*

19 →	Jane	>no I mean the< ⌈flavour
20	Connie	⌈°yĕ-°

    ⌊*...gesturing hand returned to lap))*

21   ⌈(.) oh!- heh

    ⌊*((eyebrow flash))*

22	Ella	⌈hh heh heh

    ⌊*((Connie and Jane both grinning broadly... both turn to glance at Ella))*

23   ⌈(0.3)

    ⌊*...Connie and Jane both grinning broadly at each other...*

24	Jane	°hhh=
25	Connie	=°hhh
26	Jane	(.) no, (.) I mean every time I do one it's °always <u>dry</u>°=
27	Connie	=°(yŭh-)° (.) uh- (0.2) >what is< WR ⌈(H)ON-=°hehhh°

                                                     ⌊*((begins to grin))*

28	Jane	⌈hehhh I dun ⌈no ⌉

    ⌊*((Jane shakes head, smiling, Connie joins in head-shake))*

29	Connie	⌊heh ⌋ °hh heh

At line 9, Jane opens a new sequence with an assessment 'your cakes are n(h)ice heh', before remarking 'don't know how you get the- (.) Christmas cakes like that cos I can't (do it)' (lines 11-12). This functions as a topic proffer. It seems that *like that* is linked to the prior assessment of Connie's cakes as nice, but the actual characteristic that makes the cakes nice is not specified. In response, Connie offers 'm- square?' (line 14), a turn which is a try-marked first pair part. Connie's turn may be designed to clarify the specific characteristic referred to by Jane's assessment and the tied talk *like that* – she seems to be offering a guess based on shape, a feature that has figured in prior discussion of one of her Christmas cakes (see line 7). If this *is* an understanding check,

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its format, though plausible as a repair initiation, is noticeably spare – the turn does not make use of either of the usual forms *what + X?* or *you mean + X?* (see Schegloff et al, 1977: pp. 368, 378-379). It seems to rely heavily on prior sequential context, which occurred some minutes before in the conversation, in order to work as an other-initiation of repair.

A 1.4 second attributable silence occurs after this first pair part (line 15). During the silence, Jane and Connie gaze fixedly at each other (see gloss of line 15). The silence is broken by Jane repeating *square* with turn-final falling intonation (line 16). By designing her turn in this way, Jane acknowledges that she has heard Connie's talk whilst postponing a response to its meaning. At line 17, Connie treats Jane's repeat as an understanding check by confirming it with 'yeh,…', emphasised by a flourish of her hand. The non-final intonation serves to signal that more talk is to come, and she adds '…(.) round o::nes,' (line 18), also with continuative intonation. The two descriptors now resemble the beginning of a list of 'shape' category members, with the result that Connie's turn no longer appears to be a specific query about squareness, but rather a more general query about shape. This is achieved without Connie needing to produce the word *shape*.

The addition of a second item from the same category set permits Jane to recognise that Connie's talk is a candidate understanding of *like that*, and she responds with a third position repair (Schegloff, 1987b) that deals with Connie's misunderstanding: '>no I mean the< flavour' (line 19). The repair is designed to highlight that it is the category chosen by Connie as an interpretive framework (Goodwin, 1995; see section 3.5.1, page 53) which is the problem – it is the category set 'taste', and not 'shape', that is relevant. Connie signals her new understanding of Jane's original comment with the change of state token *oh*, and then laughs (line 21). Ella, Jane's daughter, joins in with the laughter, and both Jane and Connie proceed to grin broadly at Ella and at each other (see gloss of lines 22 and 23). After this, Jane elaborates with: '(.) no, (.) I mean every time I do one it's °always dry°=' (line 26). Connie acknowledges this and initiates a new sequence by asking '…>what is< WR(H)ON-=°hehhh°' (line 27) and so the talk moves on. Note that this question, which is closely tied to the sequence before, is sequentially grammatical, and thus is another example of those turns discussed in section 5.3.

This extract again shows how Connie's turn construction can cause problems for Jane in understanding the sense of the talk. Jane may recognise '…square?' as an other-initiation of repair since it is clearly a guess of some sort, but it seems that she can't

make sense of it as such until Connie adds a second member of the category 'shape'. The fact that Connie's turn does not take either of the common structural forms for an understanding check may add to Jane's difficulty with making sense of it. If Connie had said, for example, *what, square?*, immediately it would have been clear that she was presenting only one of a number of candidates for a trouble source in Jane's turn. This would have signalled to Jane that it was not squareness *per se* that was important, but rather the characteristic of shape more generally. As it stands, '…square?' does not signal that it is one of a number of possibilities – it is too specific, focusing as it does on squareness alone – and Jane cannot make sense of it as an other-initiation of repair in this context.

In summary, these extracts show how aspects of aphasia can affect Connie's and Jane's conversation. Extract 9 shows how a production problem can obscure the sense of Connie's talk. In particular, it seems to be the absence of hearable word boundaries caused by Connie's syllable timed output that prolongs the difficulty. When Connie finally succeeds in signalling a boundary between syllables, Jane is able to produce a candidate understanding. Extract 10, Extract 11 and Extract 12 demonstrate how problems with constructing a turn at talk can affect mutual understanding. In Extract 10, it is the lack of links between elements, plus a production problem, that lead Jane to initiate repair. Her repair technique indicates that it is the sense of the turn as a whole that is problematic, rather than any specific sub-part of the turn. Connie however, offers a self-repair that suggests the trouble is more discrete. Subsequently, Jane clarifies the meaning of the whole turn via a series of understanding checks for Connie to confirm or reject. Extract 11 again shows Jane struggling to make sense of Connie's turn as a whole, and using an open class repair initiation technique to display this. With hindsight, it is possible to pinpoint the trouble source in this extract to be a missing verb. This extract is interesting because it is only after Jane has abandoned her repeated attempts to initiate repair that Connie succeeds in re-doing her problematic turn. Not only does she successfully convey her original meaning, but she does so by producing a mostly-grammatical, fully sentential turn at talk. Extract 12 is slightly different from the others, in that it is primarily an example of Connie having problems understanding Jane's talk, rather than vice versa, but there are parallels with the other extracts, in that the structure of Connie's next turn 'guess' does not make sense to Jane as a repair initiation on her turn. This delays Jane's recognition of the fact that Connie has misunderstood, and thus prolongs the resolution of the repair sequence.

5.5 SUMMARY

The CA approach that forms the basis of this chapter reveals a range of formats for turn construction in Connie's conversation with Jane. Section 5.2, novel turn construction formats, demonstrates two distinctive and recurring grammatical phenomena: the first is fronting of a noun or noun phrase into turn-initial position, the second is fronting of a temporal element into turn-initial position. Analysis of turn-initial noun constructions in section 5.2.1, reveals that they function to establish reference to a person, and subsequently present a comment about that person. As a result, such utterances resemble the non-standard conversational form that occurs in non-aphasic talk, known as topic-comment structure (Li and Thompson, 1976; Keenan and Schieffelin, 1983; Kim, 1995). Connie deploys this construction to initiate a new sequence of talk that introduces a new referential item and makes some newsworthy comment about it. Although the referring expression is new to the talk at this point, it is one of a set of previously talked-about expressions. As a result it is identified with reference to prior talk, via a tied term such as a pronoun. In both examples, establishment of reference becomes an interactional sequence in its own right (Auer, 1984). The comment part of the construction does *not* contain a verb, and thus there are no grammatical links between the elements of the turn. This is what marks the construction as different from examples of topic-comment structure in non-aphasic conversation. Rather, the noun and the comment are packaged as a single turn construction unit via sequential, prosodic and pragmatic means. This method of turn construction may have interactional benefits for Connie, in that it permits her to express complex semantic relations between adjacent lexical items without the need to manipulate aspects of grammar. There is no evidence to suggest that Jane has difficulty interpreting such turns.

The analysis of turns with an initial temporal element, in section 5.2.2, reveals that these types of construction function to present an account of an event, with the initial temporal element conferring its past or future status. The event part of the utterance contains a verb, and thus demonstrates a level of grammatical structure that is not seen in the noun-initial constructions of section 5.2.1, but the verb is not marked for tense. Although the initial temporal element resembles a story entry device, described by Jefferson (1978) in non-aphasic conversation as a temporal locator, analysis reveals that its function is different to that seen in non-aphasic conversation – it is not employed for the usual interactional purpose of telling a story. Rather, Connie uses it to initiate a sequence of talk about a completely new topic in the absence of commonly used

disjunct markers such as *oh* or *by the way*. It seems that the temporal element itself may function to alert Jane to the turn's status as a topic initiator, by signalling a shift of temporal frame. Fronting a temporal element may be interactionally advantageous in that it reduces the processing demands involved in marking tense, as it provides an alternative, if unconventional, method of conveying temporal reference. There is no evidence to suggest that Jane finds this unconventional temporal and disjunct marking to be problematic in any way. Indeed, as the final extract in this section reveals, there is evidence that it is the deployment of 'standard' sentential grammar to do temporal reference that results in the need to repair trouble with mutual understanding. By contrast, there are no examples in the conversation of repair that is focused on temporal reference where a fronted temporal element is employed.

Fronting in general may be advantageous for Connie because the fronted element, whatever form it takes, can act as a turn-holding device by projecting that there is more of the turn to come. Projection is achieved via continuative intonation and the pragmatic incompleteness of the turn. These turn characteristics result in the need to wait for the turn to continue in order to make sense of it. The fact that Jane does not interrupt this type of turn-in-progress is evidence of her orientation to a 'wait-and-see' tactic. In addition, where the joint establishment of reference becomes relevant, Jane signals her understanding by using a short receipt token or a nod (see Extract 2, line 16; Extract 10, line 14). By being careful to signal that such a contribution is not the beginning of a move to take a full turn, she displays an awareness of the in-progress nature of Connie's novel turn construction.

Section 5.3, sequentially grammatical turns, demonstrates that Connie can also produce grammatical turns at talk. Three of the six turns investigated in this section constitute the first pair part of a new sequence, one is an unsolicited comment that follows the end of a sequence of talk, and two are designed as sequence-closing punchlines. Each is closely tied to the sequence that precedes it. As a result, pronouns are used in the place of full form nouns, unless they are new to the talk. The fact that the constructions contain pronouns may make them beneficial for Connie, because she does not have to access full form nouns and integrate them into the structures in order for the turn to be grammatical. The end-of-sequence position in which sequentially grammatical turns appear may also be advantageous because it is not constrained by the immediately prior position in the way that a second pair part is constrained by a first pair part. In end-of-sequence position, Connie is under less pressure to formulate a turn

quickly, and there are no constraints on content. Indeed, she is not compelled to produce any talk at all.

Section 5.4, problems with turn construction, reveals what happens when Jane encounters difficulty with Connie's turns. The analysis shows how Connie's aphasic turn construction and production problems can occasion next-turn repair initiation by Jane. All examples show that much work is required on the part of both participants in order to successfully resolve such problems. It is interesting to note that, for the repair sequences that are characterised by turn construction issues (Extract 10 and Extract 11), there is a tendency for *Jane* to drive the sequence to its resolution (be it successful or not). In these extracts, Jane other-initiates repair that signals a pervasive problem with meaning *per se*, but Connie's response suggests that *she* has identified the trouble source to be a discrete problem with only one small part of the prior turn. Subsequently, Jane deploys a series of understanding checks to try to clarify the meaning of the turn as a whole, and Connie produces minimal confirmatory turns in response. In Extract 11 this fails to reach a successful conclusion, and Jane abandons the repair sequence, only for Connie to then re-do her turn, when the sequential 'pressure' to do so is off, producing a mostly-grammatical, fully-sentential construction. This suggests that Connie may find it harder to self-repair as a second pair part to a first part other-initiation of repair, than she does in a first position slot, where she is less pressured by the pace of talk. This may go some way to explaining Connie's tendency to treat Jane's meaning-related troubles, which entail a major re-working of the whole of Connie's turn, as problems with a specific word or words, which entail a much more discrete self-repair, such as a repeat of the trouble source word. The latter may be much less demanding of Connie's language resources, given the time pressures of the second pair part slot.

In summary, the analysis reveals distinctive turn construction formats in Connie's talk that are different to the grammatical structures of non-aphasic conversation, characterised in terms of sentences, clauses and phrases (Sacks et al, 1974), although some do bear a resemblance to non-standard conversational forms. Other turn constructions in her conversation reveal a 'normal' sentential grammar at work. Thus, Connie produces talk that is entirely grammatical in some contexts, and agrammatic (with reference to a standard clinical definition) in others. She shows a tendency to initiate a sequence of talk that presents *previously undiscussed* information by producing a turn with a novel construction. Thus, when initiating newsworthy talk about a previously unmentioned referential item, she tends to produce a turn-initial noun

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construction. And when initiating talk about an event that is a completely new topic of talk, she tends to produce a turn-initial temporal element construction. Conversely, when she initiates a sequence that has close ties to the preceding sequence, indicated by the use of pronouns rather than full form nouns, she tends to produce a sequentially grammatical construction. Tied talk may be interactionally advantageous since it decreases processing demands with respect to the integration of nouns into structures. This feature may enable Connie to produce such a turn as a 'normal' non-agrammatic construction. In addition, the turn's unconstrained sequential position may also encourage the production of sentential grammar. Negative evidence of the effect of sequential position on grammar comes from the analysis of repair sequences, where Connie's ability to repair structural matters seems to be influenced by the pressures of producing a turn at talk when it is a second pair part self-repair following a first pair part other-initiation of repair. Thus, the analysis suggests that both content and sequence position have an effect on Connie's ability to construct a grammatical turn at talk, such that, in favourable sequential positions, her talk can appear entirely 'normal' in terms of a sentence grammar, and her identity can no longer be defined in terms of impairment.

6 Analysis of Connie's test data and comparison with conversation

6.1 INTRODUCTION

Chapter 6 presents an analysis of Connie's performance on PALPA 53, TRIP and the VAST, followed by analysis of narrative data elicited by the Cookie Theft picture, the Dinner Party cartoon strip and the Cinderella story telling.[14] Full transcripts of Connie's test data can be found in Appendix 8, page 347. Transcription procedures are explained in Chapter 4, section 4.3.4.2, page 72. Sections 6.2 and 6.3 will present an analysis of performance on word- and sentence-level tests and narrative-level tests respectively. The information gained from the test data will then be compared, in section 6.4, with the patterns of language use in conversation discussed in Chapter 5. Finally, a summary will be presented in section 6.5. Chapter 6 aims to demonstrate that Connie's grammar looks considerably different in the context of clinical assessment, where sentential structures dominate, as compared with conversation, where we observe interactional alternatives to the sentence.

6.2 PERFORMANCE ON WORD- AND SENTENCE-LEVEL TESTS

Connie's performance on the word- and sentence-level tests PALPA 53, TRIP and the VAST is characterised by a strikingly high level of linguistic ability. Scores and error patterns for each of these assessments are summarised in Table II.

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[14] Earlier analyses of selected data from TRIP, the VAST and the narrative tests were published in Beeke et al (2001a) and Beeke et al (2003b).

test	score		errors	
PALPA 53: spoken picture naming	39/40		1	semantic paraphasia
TRIP: nouns in isolation	35/35		0	
TRIP: nouns in argument structures	82/85		*1-argument structures:*	
			1*	reversal of agent and patient/omission of agent (produced a 2-arg. verb)
			2-argument structures:	
			1*	reversal of agent and patient/omission of agent
			3-argument structures:	
			1	omission of benefactive
TRIP: verbs in argument structures	15/15	one place verbs	0	
	15/20	two place verbs	2 (1*)	directional opposite
			1	semantically anomalous
			1*	auxiliary only
			1	omission
	10/10	three place verbs	0	
VAST: (i) verbs as single words	28/40	correct$^\alpha$ verb	2	no response
			2	noun
			5	semantically related/general
			2	semantically anomalous/picture?
			1	unintelligible X + 'ing'
VAST: (ii) verbs within a sentence	31/40	correct$^\beta$ verb	0	no response
			2	noun
			4	semantically related/general
			2	semantically anomalous/picture?
			1	auxiliary only
	4/40 well-formed sentence			

* self-corrected, but counted as an error according to the score protocol
α target verbs (21) plus acceptable alternatives (7)
β target verbs (24) plus acceptable alternatives (7)

Table II . Connie's performance on PALPA 53, TRIP and the VAST: summary of scores and error patterns.

This section aims to show, firstly, that Connie's performance demonstrates successful access to, and retrieval of, a range of lexical items, and, secondly, that she is able to successfully construct complex syntactic structures with one, two and three arguments. In addition, the analysis will reveal that Connie's test grammar is characterised by fluctuating omission of the following aspects of morphology: indefinite and definite articles; the auxiliary verb *is* in present progressive tense; markers signalling agreement

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between subject and verb. However, on occasion, she is able to produce structurally and morphologically well-formed utterances.

6.2.1 word-level tests: PALPA 53 and TRIP nouns in isolation

Connie names 39/40 items accurately and without help on PALPA subtest 53, spoken picture naming, demonstrating no discernible impairment of noun retrieval at a single word level. The only error is a semantic one: 'whale' and 'Flipper'[15] for *seal* (item 32). The noun section of TRIP provides further evidence that Connie is able to produce nouns in isolation without difficulty. Here she scores 35/35 items correct. Connie's efforts to retrieve the same nouns during sentence production on TRIP are 96% accurate (a score of 82/85 for nouns in argument structures). Therefore, Connie's ability to assign thematic roles to lexical items in sentences is within the range of scores achieved by non-aphasic adult controls on this test (95-100%, Whitworth, 1996).

6.2.2 sentence-level tests: TRIP one-, two- and three-argument structures and the VAST subtests (i) and (ii)

6.2.2.1 ability to produce a verb that describes a pictured event

On sections of TRIP that target one-, two- and three-argument structures, Connie scores 40/45 (89% accuracy) for production of a verb in response to a pictured event. All errors are made on two-place verbs – she produces one verb which is semantically anomalous with the picture: 'pulling' for target *carrying* (item P1-S2-29), one auxiliary without a main verb: 'girl,...is,...choo: choo: trai:n' (item P1-S2-30), one verb omission (item P2-S2-29) and two verbs with opposite meaning for a directional target: 'pulling' for *pushing* (item P2-S2-31) and 'chase' for *dragging* (item P2-S2-34). Results suggest that Connie's ability to produce verbs in response to the event pictures of TRIP is only mildly impaired.

On the VAST subtest (i) *verbs as single words*, Connie scores 28/40 for verb production (70% accuracy). Whilst subtest (i) requires an isolated verb, Connie seemed unwilling or unable to complete the test in this way, preferring to attempt a sentence for each item. Thus, her performance on subtest (i) is directly comparable with that of subtest (ii), *verbs within a sentence*. She scores 31/40 (78% accuracy) for verb

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[15] The title of a film about a dolphin.

production on this second subtest, suggesting a stable performance across the two sections (70% and 78% respectively).

For both VAST subtests, a decision was made to score acceptable alternative verbs as correct in addition to target verbs, to give a more accurate reflection of verb access. Of the 28 correct verbs produced in subtest (i), 21 were target verbs and seven were deemed to be acceptable alternative descriptions of the pictured event using a verb other than the target. Examples include 'cookin' for *frying* (item (i)2) and 'mixing' for *stirring* (item (i)33). Of the 31 correct verbs produced in subtest (ii), 24 were target verbs and seven were acceptable alternatives.

Five of 12 errors made on subtest (i) and 5/9 on subtest (ii) involve production of a semantically related or general verb, for example 'mowin' for *ploughing* (item (i)8), 'ice-skating' for *roller-skating* (item (ii)19), 'hanging' for *parachuting* (item (i)11) and 'sweeping' for *raking* (item (ii)27). Verb omission occurs four times in subtest (i) – two utterances are built around a noun: '(5.3) fish? nuh (0.5) needle.' for *sewing* (item (i)5), and '(1.1) s: um he:, (8.8) shovel?' for *digging* (item (i)17); another two items elicit no response: items (i)7 and (i)24. A noun is produced instead of a verb only once in subtest (ii): '(2.7) she, (3.2) lemon squeezer.' for *squeezing* (item (ii)30). See Appendix 8, page 350, for a full error classification.

An informal comparison of verb production on the VAST and TRIP reveals that Connie's ability to produce appropriate verbs is somewhat better for TRIP, at 86%,[16] than for either section of the VAST, at 70% for subtest (i) and 78% for subtest (ii). This may reflect differing test administration procedures for TRIP, which involves the provision of a response model by the tester, in order to maximise the likelihood of each picture eliciting the intended target (see Appendix 4, page 317, for details). In effect, the task is akin to delayed repetition, even though model and response are not sequential, and it is possible that the provision of a structural model may boost Connie's ability to produce verbs.

6.2.2.2 ability to produce sentential structures

Data from TRIP permits qualitative analysis of Connie's ability to produce sentential structures with one-, two- and three-place verbs. This reveals that she is able to construct one-, two- and three-argument structures without difficulty:

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[16] This figure has been calculated using responses to one- and two-argument structures only, to permit comparison with the VAST, which does not target three-argument structures.

TRIP P2-S1-23 the children are crying	'(1.0) children, (0.3) crying.'
TRIP P1-S2-25 the girl's kicking the snake	'(0.8) the girl- is kickin' the snake.'
TRIP P1-S3-35 the boy's showing the apple to the horse	'(1.4) m boy, (0.3) showing the apple to the horse.'

Although Connie demonstrates that she can integrate up to three arguments with an appropriate verb to build a sentence, she clearly exhibits the type of morphological difficulty that has long been considered a defining characteristic of agrammatism (see Chapter 2). Thus, the TRIP data reveals problems with producing indefinite and definite articles, marking agreement between subject and verb, and manipulating the auxiliary *be* when using a present progressive tense form. Informal analysis of the grammaticality of responses shows that 80% of utterances (36/45 responses) are ill-formed as a result of morphological errors (see items P2-S1-23 and P1-S3-35 above, for example). Interestingly, only 2/45 responses reveal (self-corrected) problems with reversibility, another classic characteristic of agrammatism:

TRIP P1-S1-21 the chicken's falling	'(1.2) m- (1.3) um tuh (0.4) mou:ntain, (2.2) fa:ll (0.3) off the- no. (.) m tuh (0.2) mountain, (1.7) fall off (0.3) the:: (2.1) ↑chicken (0.5) fell off the mountain.'
TRIP P2-S2-28 the snake's biting the woman	'(0.6) the gir-, (0.6) is biting:, (0.5) no. (0.7) the: sna:ke, is biting the girl.'

In general, Connie's responses to TRIP are formulated very slowly, with frequent and variable amounts of pausing occurring between words. Her utterances contain pauses that range from less than one tenth of a second to 5.8 seconds in length (see item P2-S2-29).

It is interesting to note that, when responding to some of the one-argument items of TRIP, Connie produces a structure containing two arguments, where one is optional (i.e. the verb she uses requires only one argument), as the following example demonstrates:

TRIP P1-S1-19 the pig's jumping	'(0.7) pig- (0.4) the pig is jumping the, (1.0) water.'

The pattern also occurs in the VAST data. Often the attempt to add a second argument causes Connie problems. One example of this, taken from the VAST, shows her

encountering difficulty and subsequently reformulating the utterance as a one-argument structure:

VAST (ii)22   drumming   '(0.4) m tuh she:, (0.6) drummin' the:, (3.7) drummin'.'

This response pattern is widespread, and will be discussed in detail in section 6.2.2.3 on page 121.

In summary, the analysis of TRIP data suggests that Connie's main difficulty with constructing sentence structures lies in manipulating morphology. This observation can be further explored via analysis of the VAST data. Subtest (ii), *verbs within a sentence*, is designed to permit a score of grammatical well-formedness to be calculated. In Connie's data, only four of the 40 responses (10% of utterances) are grammatically well-formed, for example:

VAST (ii)33   rowing   '(1.7) a man (0.4) is (0.2) rowing the: boat.'

VAST (ii)36   swimming   'the girl (2.8) is (0.4) swimmin'?'

Of the 36 ill-formed responses, 35 are attempts at sentences with identifiable main verbs that show classic signs of agrammatism: omission of indefinite and definite articles; lack of agreement between subject and verb; omission of auxiliaries in present progressive tense verbs. There is no evidence of morphological substitution errors. The remaining ill-formed response is structured around a noun: '(2.7) she, (3.2) lemon squeezer.' for *squeezing* (item (ii)30). It is interesting to note the fluctuating nature of Connie's morphological difficulties. The number of omissions, and their type, varies from utterance to utterance, as the following examples demonstrate:

VAST (ii)3   ice-skating   '(0.3) tuh (0.7) m (0.7) man, (0.5) is (0.5)
                                 (h)ice(0.8)a:shtin'.'

VAST (ii)23   blow-drying   '(2.5) uh she, (0.7) blo::w-dry:: her hair.'

VAST (ii)28   grating   '(1.4) she (0.5) grating the::=carrots.'

There is no observable problem with reversibility on subtests (ii) or (i), of the VAST.[17]

Informal analysis of well-formedness in the data from subtest (i) of the VAST, *verbs as single words*, is also possible because Connie chose to respond by producing

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[17] It should be noted that the VAST test, unlike TRIP, contains few items with potential for errors of reversibility to be made.

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sentences. The data reveals that only two of the 40 responses (5%) are grammatically well-formed:

VAST (i)31   knocking   '(5.5) m she's, (0.5) polishin' the door.'[18]

VAST (i)39   scrubbing   '(0.6) she's, (0.6) wa:shin' the:: (0.3) floor.'

Of the 38 ill-formed responses, 36 are attempts at sentential structures that reveal morphological errors, and two are structured around a noun (items (i)5 and (i)17). As per TRIP, sentence production is very slow for both subtests of the VAST, and there are many intra-utterance pauses. However, it seems that pauses in the VAST data are more likely to exceed one second in duration. The longest pause is 8.8 seconds (item (i)17), as compared with 5.8 seconds on TRIP.

In summary then, responses to TRIP show a slightly higher percentage of well-formed utterances (20%) than do responses to either subtest of the VAST (5% for subtest (i), 10% for subtest (ii)). Again, it is possible that this is attributable to the administration procedure of TRIP, with its provision of a model by the tester.

In addition to the findings reported above, investigation of sentential structures reveals a pattern of statement-like intonation, as might be expected of a non-language-disordered person engaged in this kind of testing. During completion of both the VAST and TRIP, Connie tends to deliver an utterance under a single contour with final falling intonation on the last element (marked in the transcript with a full stop). Non-final arguments produced with a subsequent pause often have hearably continuative intonation (marked by a comma) to indicate an utterance-in-progress. In addition, some restarts are marked by a pitch jump (shown by an up-arrow) on the first argument of the new structure, to signal that it is disjunctive with prior element(s) (Couper-Kuhlen and Selting, 1996). These patterns are observed both during structurally complete utterances and those that are missing a main verb, as the following examples demonstrate:

TRIP P1-S1-24 the cat's drinking   '(0.8) the: cat, (0.5) i:(s) (0.3) licking the cream.'

TRIP P2-S2-29 the chicken's pulling the snake   '(1.3) °hhh the chicken, (5.8) ↑chicken, (1 syllable), (4.0) ho::ld o:f the:, (0.6) snake.'

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[18] Although this response is clearly not the one targeted by the picture, it is grammatical.

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TRIP P2-S3-41 the woman's showing the door to the dog   '(1.1) tuh (0.9) the girl is showing the dog, (1.3) to the door.'

This pattern seems to suggest that Connie is able to use prosodic resources in a manner that is appropriate for a sentence-level test procedure.

One final pattern emerges from the sentence-level data on application of an *interactional* approach to the analysis. The pattern consists of systematic interaction between Connie and the tester in order to complete each item. This will be explored in depth in section 6.2.2.4, on page 123.

6.2.2.3   the two-argument structure as a recurring format in sentence-level tests

As noted above, both subtests of the VAST reveal that Connie favours an utterance with a two-argument structure even when the target verb is intransitive, and therefore requires her to produce only one argument. A total of 37 of the 80 verbs tested by the VAST require only one argument, and of 28/37 correct responses, Connie produces 15 (54%) with a second argument, as the following examples demonstrate:

VAST (i)12   skipping   '(1.7) she, (4.2) s:kippin' a rope.'

VAST (i)26   dancing   '(1.0) the:y, dancing (5.8) (/ɛn/) the music.'

For a further four, she attempts to produce a two-argument utterance, but experiences trouble with the second argument. Lengthy pausing occurs, usually after an article or preposition with an intonation contour that suggests more talk is to come (represented by a comma in the transcript), but subsequently, she abandons the second argument. In three of the cases, items (i)38, (ii)22 and (ii)38, the verb is then repeated with final falling or rising intonation (marked by a full stop or a question mark) to signal that it is now the final element of the utterance, and thus that she has reverted to a one-argument structure:

VAST (i)21   cycling   '(1.2) sh:e's, (1.7) cycle, (0.3) on the:, (1.6)-*((studies picture))* (1.9)-*((looks up and shrugs))*'

VAST (i)38   shaving   '(5.5) he:, (3.2) sha:ve, m- (0.5)...(0.7) shaving?'

VAST (ii)22   drumming   '(0.4) m tuh she:, (0.6) drummin the:, (3.7) drummin'.'

VAST (ii)38   sleeping   '(0.7) she (0.9) (s)noring the: (0.4) tuh (1.4) snoring.'

If failed attempts at two arguments are considered along with successful ones, 19/28 or 68% of Connie's responses to one-argument target structures are attempted with a second argument.

The same tendency can be seen in responses to the section of TRIP which elicits one-argument structures, as the following items demonstrate:

TRIP P1-S1-19 the pig's jumping   '(0.7) pig- (0.4) the pig is jumping the, (1.0) water.'

TRIP P2-S1-19 the girl's skipping   'tuh (0.9) girl is: /stɪkɪn/, tuh m- (1.5) m- (0.5) tuh heh heh...tuh (0.5) the girl is (1.0) skipp(.)in' the rope=no yeah?'

It is interesting to note that, despite the provision of a one-argument model for this type of utterance, as part of TRIP's administration procedure, Connie uses a two-argument utterance frame to successfully produce 33% of them (5/15 utterances). A further two responses constitute failed attempts to produce a second argument for a one-argument target structure:

TRIP P1-S1-20 the woman's crying   '(0.6) the gir- is cry- (0.6) o:ver, (0.7) uh- weep?'

TRIP P2-S1-20 the dog's running   '(0.5) the dog, (0.5) chasin': (2.3) runnin'?'

Again, if failed attempts at two arguments are considered with successful ones, 7/15 or 47% of Connie's responses to one-argument target structures are attempted with a second argument.

Data from both tests show that, for the majority of one-argument target structures, Connie *is* able to retrieve the correct *one-place* target verb (28/37 or 76% for the VAST, and 13/15 or 87% for TRIP), but she produces this verb within a *two-argument* structure an average of 58% of the time. It is not the case that she tends to replace the target one-place verb with an alternative two-place verb that requires an *obligatory* second argument. For the VAST, only 3/28 or 11% of correct responses to one-place verb targets contain two-place verbs. For TRIP, this figure is 2/15 (13%). Thus, Connie generates a high proportion of the observed two argument structures by adding an *optional* second argument to a structure built around a one-place verb. The argument is not required to be expressed by the verb in any formal grammatical sense.

It seems that the repeated use of a second argument could either be (i) a strategy that Connie favours for use in test situations, or (ii) an impairment default mechanism. As section 6.2.2.2 above has shown, Connie's aphasia severely limits her ability to construct grammatically well-formed utterances. Given this fact, adopting a strategy of

producing a two-argument structure may be advantageous for the completion of sentence elicitation tests. By using what amounts to a template for sentence production, Connie may be able to self-cue her grammar, thus limiting the possibility of producing errors. Whitworth (1994, cited in Whitworth, 1996) observes that two-argument structures have a higher frequency of use than either one- or three-argument structures in spontaneous spoken English. Given this, the potential disadvantage of the strategy – the increased complexity of sentence construction for one-place verb targets – would be far outweighed by the advantage for two-place verb targets. Thus, Connie may have adopted a strategy which is based on the argument structure that best fits the majority of English spoken utterances. In addition, it seems likely that Connie has learned from her lengthy experience of SLT intervention that an assessment context often entails the use of sentences of the *subject-verb-object* type, and her response may reflect this knowledge. This may also explain why her responses to the VAST subtest (i) *verbs as single words* are all sentential utterances, despite the instruction to produce a verb in isolation. However, given that, for English, two-argument structures have a higher frequency of use than one- or three-argument structures, the possibility that Connie's repeated use of two-argument structures is a cognitive strategy adopted by the impaired brain to make all sentences conform to the common pattern cannot be ruled out.

6.2.2.4 interaction between Connie and the tester during sentence-level tests

As noted above, an interactional approach to the analysis of the sentence-level test data reveals a striking form of interaction between Connie and the tester. This involves a sequence whereby Connie actively seeks and receives acknowledgement from the tester of the acceptability of her response to a picture. There are very few items of either test (two VAST items; five TRIP items) where Connie moves straight on to the next item without orienting herself to the tester. The sequence involves three elements: (1) response to a picture, (2) a pause, and (3) an acknowledgement from the tester (after Marlaire and Maynard, 1990, see section 3.6). In the basic form of the sequence, Connie delivers a hearably complete utterance in response to a pictured item, and subsequently pauses, making eye contact with the tester just before, during or just after delivery of the final word of the utterance. The tester initially receipts the response non-verbally, by nodding in overlap with the end of the utterance, continues to nod during the pause, and then proceeds to present the verbal receipt marker *mhm*. Connie then moves on to the next item. The sequence can be seen in Extract 13, below, which presents an item from TRIP:

```
01  →  Connie   ⌜(1.3) m (0.9) baby is wav        ⌜ing.
    →           ⌊((C studies picture))            ⌊((T begins to nod))
    →           ...t--,,
02  →           ⌜(0.9)
    →           ⌊((T continues to nod, C starts to lift page))
03  →  tester   ⌜mhm.
    →           ⌊((C turns page))
                ⌜(1.7)
                ⌊((C turns page))
04     Connie   (0.4) ho::rse (0.5) gallopin'.
```

In this example, Connie delivers her response to the picture without encountering any particular trouble with the structure or the verb (line 01). The tester begins to non-verbally acknowledge Connie's response before it is complete, at the point at which she (the tester) can anticipate the *ing* ending of the verb, and thus the end of the structure. Given Connie's tendency to add an optional second argument to such 1-argument structures (see section 6.2.2.3 above), it seems that the tester must be drawing on other information contained within the response that indicates that the verb will indeed be the final element of the structure. This information is probably prosodic; the tester can track the statement-like intonation contour of the response, and can hear the beginning of the movement that constitutes the final fall in pitch. At the point at which the tester begins to nod (see gloss of line 01), Connie is still looking down at the picture, although it is conceivable that she may be able to register the movements of the tester's head in her peripheral vision. It is during the 0.9 second pause after her response that Connie makes eye contact with the tester, and thus overtly 'sees' the tester nodding, and, just as importantly, is *seen* to see the tester nodding. This joint orientation to the tester's non-verbal acknowledgement of the response continues during the 0.9 second pause. Subsequently, Connie looks down and begins to turn the page (see gaze transcript above line 02 and gloss of line 03). It is at this point that the tester gives verbal acknowledgement, the minimal receipt token *mhm*, delivered with final intonation (line 03). The positioning of this receipt token *after* the joint orientation to tester nodding suggests that it is not designed to verbally convey what the nodding has already indicated, but to signal that the response is *acceptable* for the purposes of the test, and that further input from the tester, in the form of cueing designed to initiate repair on the response, will not be happening; the tester will take only a minimal turn. The prosody of the element reinforces its status as a minimal turn, rather than a prelude to

elaboration. Thus, *mhm* represents a form of covert assessment of Connie's performance on the item.

In addition, there are variations on the basic interactive sequence described above. For example, the tester's acknowledgement elements can be expanded into cues. This occurs when Connie's response is deemed inadequate because she has not used the target verb or an acceptable alternative. This is prevalent during the VAST subtests (see for example, items (i)3, (i)29, (ii)13 and (ii)30). Another variation occurs when Connie's response is a 'tentative' one (Marlaire and Maynard, 1990), in which she gives an incomplete utterance. Extract 14, below, gives an example, taken from the VAST:

Extract 14 Connie Jan00.VAST#3(i)21 cycling

```
01      Connie    ⌈(1.2) she's, (1.7) cycle, (0.3) on the:, (1.6)  ⌉
                  ⌊((studies picture))                             ⌋
02                ...t------------------------------------------------------------------
                  ⌈(0.6)                                                    ⌉⌈(1.3)
                  ⌊((opens and closes extended hand quickly, twice in succession))  ⌋⌊((...holds hand still, T nods))
03      tester    yep-,=  ⌈=tha's fine,                                     ⌈cycling. yeh.
        C gaze    -------------,,
04      Connie           | °yeh-°
                  ⌊((flicks open extended hand then takes hold of page))  ⌊((begins to turn page))
```

Here then, Connie's response to the picture is tentative and constitutes a partial utterance – it is one of the responses where she deploys a one-place verb, but attempts, and fails, to produce a two-argument structure (discussed in section 6.2.2.3 above). As line 01 shows, she pauses for 1.6 seconds at the point at which a second argument is due. Both the intonation and the grammar of the immediately prior elements '...on the:,...' project a second argument. Connie has been studying the picture throughout the production, and continues to do so during the pause. Thus, she signals trouble with the production of the second argument, but at this point conveys the impression that she will continue without help from the tester. However, after 1.6 seconds, she looks up to make eye contact with the tester (see gaze transcript above line 02). It is at this point that completion of the test item becomes interactional. During the first 0.6 seconds of mutual gaze, Connie makes a rapid gesture whereby she holds out her left hand, palm facing upwards, in order to open and close it twice in quick succession (see gloss of line 02). After this, she holds her hand still, in its extended position, for 1.3 seconds whilst continuing to make eye contact with the tester. The gesture and gaze signal that Connie has abandoned her attempt to repair the trouble unaided, and is inviting the tester to help. The tester responds by beginning to nod (see gloss of line 02), and then by

delivering an overt assessment of the incomplete response as 'adequate' for the requirements of the test: 'yep,=tha's fine,...' (line 03). Presumably the tester assesses the unfinished structure as *fine* because subtest (i) of the VAST requires only that the verb is produced, and thus Connie is already doing 'unnecessary' work by putting the verb into a sentence. As producing an utterance is not a requirement of the test, the tester does not initiate repair in order to cue Connie's production of the remaining argument. The fact that the tester then goes on to repeat the verb in isolation: 'cycling. yeh.' (line 03), reinforces the suggestion that she (the tester) is oriented to the requirements of the task. After Connie hears the tester say 'yep,...', she replies with a quiet *yeh* (line 04), which overlaps with the tester's assessment, whilst looking back down to the test materials and preparing to turn over the page (see gaze transcript below line 03, and gloss below line 04). As the tester repeats the verb, Connie turns over the page to the next item. Thus, at no point does she re-engage with the utterance she is producing, despite having signalled via prosodic and grammatical resources that it is incomplete as it stands. Rather, she replies to the tester's receipt token and then moves on to the next item in the test. In this way, Connie treats the tester's response at line 03 as an acknowledgement of the adequacy of the (incomplete) response.

In this example, Connie demonstrates that she can actively solicit help from the tester by presenting a tentative and incomplete response before pausing and establishing joint eye contact. As Marlaire and Maynard (1990) state, tentativeness during testing is an interactional resource. This version of the interactional sequence has an effect on the grammar of Connie's response, since it leads her to abandon an incomplete construction that she may have gone on to revise or repair had the tester not become involved. In sum, the sentence becomes a joint construction (Goodwin, 1979), and not merely a reflection of Connie's performance. Although this co-production does not impact on the scoring of a 'correct' verb, it would affect a qualitative analysis, such that Connie may be judged unable to complete the second argument of the structure because of impairment, when in fact she is motivated not to continue because of the reaction of the tester.

The interactive sequence discussed above pervades the sentence-level tests, suggesting that such activities are collaboratively organised, and thus that they cannot be explained in terms of a simple stimulus-response model of testing (Maynard and Marlaire, 1999). This issue will be discussed further in section 6.4.6, on page 154.

6.2.3   summary of performance on word- and sentence-level tests

To summarise, Connie is able to produce nouns in isolation with a performance level of 98% - 100%. Her ability to produce nouns in utterances with a range of thematic roles, at 96% accurate, is within the performance range for non-aphasic controls. She is able to produce verbs in sentential utterances with 89% accuracy on TRIP, with error analysis revealing a mild difficulty with directional verbs. She shows little difficulty with the construction of structures with up to three arguments. On the VAST she scores less for verb production – 70% and 78% on subtest (i) and subtest (ii) respectively. For responses to both TRIP and the VAST, complete omission of a verb is rare; there are only 5 examples in response to a total of 125 items (4%). There is little observable difficulty with reversibility; only 2/45 responses to TRIP show any evidence of a problem in this area, and Connie goes on to self-correct both without help. There are no observable errors of reversibility made on the VAST, but it should be noted that there is little opportunity in this test to manipulate a structure with a verb that requires two animate arguments. Overall, Connie's performance demonstrates only a mild difficulty with elicited sentence construction (error frequency ranges from 11% to 30% of the total responses). Responses to both TRIP and the VAST are delivered with statement-like intonation that sounds entirely appropriate for such a test environment.

The analysis reveals a particularly noticeable pattern of response in Connie's TRIP and VAST data; the repeated use of a two-argument structure where a one-argument structure would be sufficient. The majority of these utterances are built around a one-argument verb, and thus, the second argument is optional. This preference leads to a preponderance of two-argument structures in Connie's sentence-level data.

Consideration of response time and intra-utterance pausing, both for TRIP and the VAST, reveals that Connie's ability to construct utterances in response to picture stimuli is achieved at some cost to speed of processing. Most responses contain significant numbers of pauses, ranging from 0.1 to 5.8 seconds for TRIP, and from 0.1 to 8.8 seconds for the VAST. This suggests that utterance construction for the VAST may be more demanding than for TRIP.

The area which shows greatest impairment is production of grammatically well-formed utterances. Data from the VAST reveal that only 5-10% of responses are grammatically well-formed. On TRIP the figure is slightly higher, at 20%. Qualitative analysis reveals the types of morphological errors traditionally associated with agrammatism. There is no evidence of morphological substitution errors. The extent to

which these difficulties affect Connie's output fluctuates. The number of omissions, and their type, varies from utterance to utterance.

It is possible that the advantage for verb production, speed of response and grammaticality that manifests itself on TRIP reflects the administration procedure, which is significantly different to that of the VAST. TRIP aims to elicit a target structure through delayed repetition, whereas the VAST does not provide any model. It seems that, when provided with a model structure, Connie is able to produce a higher percentage of grammatical utterances with a higher level of appropriate verbs, and at a greater processing speed, even when model and response are separated both by time and the production of other models/responses.[19] Interestingly, this advantage exists despite the fact that TRIP requires the production of many utterances that are structurally more complex than those targeted by the VAST, and all referring expressions – agent, patient and benefactive – must be produced in full (rather than as pronouns).

In addition to grammatical findings, the analysis also reveals a distinctive form of interaction between Connie and the tester, a sequence whereby Connie actively seeks and receives acknowledgement from the tester of the adequacy of her response to a picture. The sequence involves (1) a response to a picture, (2) a pause and (3) an acknowledgement from the tester. In some cases, Connie actively solicits help with a tentative response in such a way that the resulting sentence becomes a collaborative production, rather than merely being a reflection of Connie's abilities.

In conclusion, the clinical profile that emerges from the word- and sentence-level tests reveals an ability to retrieve a range of nouns and verbs in order to construct one-, two- and three-argument sentence structures, albeit with severely impaired (and fluctuating) ability to manipulate grammatical morphology concerned with articles, tense and agreement. Speed of processing is extremely slow, regardless of whether the resulting utterance is grammatical or not, with evidence of intra-utterance pauses as long as 8.8 seconds. Despite this lack of processing speed, intonation is available as a resource for packaging the elements of an utterance into a single unit.

6.3 PERFORMANCE ON NARRATIVE-LEVEL TESTS

This section will focus on data elicited by the Cookie Theft picture description, the Dinner Party cartoon strip description and the Cinderella story telling. Full transcripts

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[19] Note however that, at 20%, her ability to produce grammatically well-formed utterances on TRIP is still severely impaired.

of these data can be found in Appendix 8, from page 363. The analysis of the narratives will take two approaches: (i) a traditional clinical approach that focuses on evaluating standard grammar, and (ii) an interactional approach that aims to uncover constructions similar to those seen in the conversation data, and to investigate interactions between Connie and the tester. The aim of this section is to show that the sentences which dominate the grammar of TRIP and the VAST are visible in data elicited when a test demands the production of a narrative. The analysis will also reveal a fluctuating pattern of morphological deficit which is identical to that seen in the sentence-level elicitation tests. In addition, the section will show that Connie deploys some constructions that resemble those used in conversation, and that there is a distinctive form of interaction between her and the tester. One aspect of this interaction mirrors that seen during the TRIP and VAST data, and concerns collaboratively agreeing the point at which an utterance is acceptable for the task at hand. The second aspect involves the establishment of reference.

6.3.1 Cookie Theft picture description

Most grammatical structures in the Cookie Theft picture description resemble those produced during the sentence-level tests. In a pattern similar to that seen in the data from the VAST and TRIP, Connie produces structurally adequate two- and three-argument sentential structures. Again, as per VAST and TRIP data, there are fluctuating levels of omission of articles, the auxiliary verb in present progressive tense, and subject-verb agreement markers. For a full transcript of the Cookie Theft data see Appendix 8, page 363.

Sentential structures are shown in Table III, below. Note the grammatically well-formed utterance (line 15).

transcript line number	transcript#6
08-10	...boy, (0.3) is (0.7) /deðɪnk/ the:=/bˀ/ (0.2) biːscuiːts.
12	...he give one to her.
15	...she doesn't know about it.

Table III. Sentential structures produced by Connie during the Cookie Theft picture description.

These data provide further evidence that Connie is able to assign thematic roles to lexical items with accuracy, a skill revealed by TRIP to be comparable with that of non-aphasic speakers (see section 6.2.1 above).

In addition to the utterances shown in Table III, Connie's description includes one structure that resembles the novel noun-initial construction seen in conversational talk (see section 5.2.1, page 75). Thus, she begins her description of the pictured scene by producing the following: '(2.6)°tuh°(0.4) m °tuh° wa:ter, (0.7) e:v'rywhere.' (lines 03-04), followed by: '(0.6) tuh floor:,=huh.' (line 06). She begins with the noun *water*, before supplementing this with a comment: *everywhere*. The noun is produced with continuative intonation to signal that there is more to come. There is no verb, however, the elements are packaged into a single utterance via sequential, prosodic and pragmatic means. The tester's receipt (line 05) signals that she has interpreted the elements as conveying a single comment on the picture. Connie follows the tester's receipt with a second noun, *floor*, produced with an elongated vowel and continuative intonation, which makes it sound like the first item in a list. The noun functions to extend the prior utterance, offering further information about the whereabouts of the water, and the intonation suggests that more items will follow. However, Connie latches a non-lexical element *huh* with final falling intonation to *floor*, whilst waving her hand around in a manner that suggests other referring expressions are relevant and, possibly self-evident (from the picture, which the tester can see). It is interesting to note that this noun-initial construction is used in the context of *beginning* the narrative, when no referential items have yet been mentioned or commented on, and the set of things to be talked about is at its greatest (though obviously finite, in that it is constrained by the picture). In this way, the situation is akin to the initiation of talk on a new topic (albeit one that has been pre-ordained), where there is no link to prior context to be made or exploited in the construction of the utterance. Analysis of Connie's conversation has revealed that one function of novel constructions is to initiate talk about a new referential item or a completely new topic. This function may motivate the use of such a construction here.

It is noteworthy that, in two of Connie's utterances, all nouns are produced as pronouns (see Table III, lines 12 and 15). One of these utterances, '...she doesn't know about it.' (line 15), is grammatically well-formed, and the other almost so, since it only lacks agreement between the subject and the verb: '...he give one to her.' (line 12). Both are produced slowly and with syllable timing, but progress relatively smoothly towards the end of the utterance; they do not exhibit the frequent and sometimes lengthy pauses common to Connie's talk. The pronouns *he* and *one* in line 12, and *it* in line 15

are each tied to a preceding *full* referring expression or event – *boy*, *biscuit* and the event of stealing the biscuits respectively. However, *her* in line 12 and *she* in line 15 are not tied – there has been no prior mention of the girl or her mother. This is not treated as problematic by Connie or the tester because the task itself allows for alternative methods of reference. Thus, whilst producing *her*, Connie points to the girl (see gloss of line 12), contextualising the pronoun in a non-verbal manner. This is made possible by the pictured noun being visible to both parties. When referring to the mother as *she*, Connie does not point to her, in fact her extended index finger hovers over the area of the picture showing the children. In this case, it seems to be the very meaning of her utterance that contextualises the pronoun as a referring expression – the mother, who is looking away from the children, is the sole person who can be said to 'not know' something. The use of pronouns instead of full noun forms has already been shown to afford Connie increased grammaticality and progressivity in conversational constructions (see section 5.3, page 88), and here in the Cookie Theft narrative the same benefits seem to apply. It seems that this elicitation task, which permits a pronoun to be used for the first mention of a noun, unwittingly boosts Connie's ability to produce grammatical structures. This issue will be taken up in section 6.4, a comparison of test data and conversation, on page 146.

During the narrative there is some interaction between Connie and the tester oriented around agreeing the acceptability of utterances at lines 12 and 15. This resembles the three part sequence noted in the VAST and TRIP data: (1) response to the picture, (2) a pause, and (3) an acknowledgement from the tester (see section 6.2.2.4, page 123). However, the sequence is not seen after Connie's utterances at lines 03-04, 06 and 07-10, which suggests that it is less pervasive in the Cookie Theft narrative than in the TRIP and VAST data.

Finally, it is interesting to consider the length and frequency of pauses in the Cookie Theft data. Lengthy pauses, both filled and unfilled, occur before the beginning of each utterance produced. The longest unfilled pre-utterance pause is 6.4 seconds in duration (see line 14). Intra-utterance pauses range in length from 0.2 to 1.7 seconds. Thus, as per the sentence-level data, the Cookie Theft narrative reveals a significantly slowed speed of processing.

6.3.2 Dinner Party cartoon strip description

In many respects, data from the Dinner Party cartoon strip description is comparable with that from the Cookie Theft picture description. The narrative contains numerous

sentential structures similar to that of TRIP and the VAST, plus one structure that resembles the novel constructions of conversation seen in section 5.2 above. However, in contrast to the Cookie Theft data, some sentential structures appear to be missing an initial argument and, on one occasion, a verb. As per TRIP, the VAST and the Cookie Theft data, Connie seeks and receives acknowledgement from the tester of the adequacy of her utterances for the task. In addition, another striking interactional sequence emerges, whereby she and the tester jointly establish reference. This is not seen in the sentence-level data or in the Cookie Theft narrative data. Each of these findings will be discussed in turn. For a full transcript of the Dinner Party data see Appendix 8, page 364.

Sentential structures have either one- or two-argument verbs, most with the required arguments (see Table IV below). Some show omission of articles, auxiliary verbs and subject-verb agreement markers, as do the TRIP, VAST and Cookie Theft data. Other structures are grammatically well-formed.

transcript line number	transcript#6
02-03	m=tuh man, (0.2) (/ŋ/), (0.4) tele,(1.3)phone, (um), (0.6) husband.
05	tuh (0.4) wife, (0.5) cooking the: meal
09-10	they, (0.6) /pɛɔɹpeɪə/, (0.3) u- (0.6) the: meal.
15-18	(um) (0.8) other (0.2) couple (0.3)...(0.2) (m) /tɹɛs/ up-, (0.8)
46	(1.2) the cat, (0.5) ate the, (1.9) meal.

Table IV. Sentential structures produced by Connie during the Dinner Party cartoon strip description.

Although these utterances are fully sentential, others represent attempts at sentential structures where one of the arguments, or in one case a verb, appears to be missing. These utterances can be seen in Table V:

transcript line number	transcript#6
25	(1.1) greet them?
32	m tuh (0.6) no food!
37-39	(umm) (0.4) m (.) run, (0.7) to- (1.2) fish and chip, (2.2) (um)
41-43	(0.9) tuh (0.3) they (ni:ce), m (0.3) fish and chip, (.) meal (0.8)

Table V. Sentential structures produced by Connie during the Dinner Party cartoon strip description where one or more arguments, or a verb, appears to be missing.

Of the four utterances in Table V, two lack an argument in the subject position of the structure (line 25, lines 37-39), one lacks a verb (lines 41-43), and one lacks both of these elements (line 32). When the position of each utterance is considered within the sequence of the narrative, those at line 25 and line 32 seem to be sequentially grammatical whereas those at lines 37-39 and lines 41-43 appear to be agrammatic, because an argument is noticeably absent. This type of noticeably absent argument is not seen in the utterances produced during the Cookie Theft picture description data.

In addition to sentential structures, Connie produces the utterance: '(1.4) they:, (2.1) m, (0.6) other: couple:,=m (0.5) tuh sh:e:, weep(s).' (line 34). This bears some resemblance to the novel noun-initial construction described in Chapter 5, section 5.2.1, in that the noun phrase *other couple* is fronted to the beginning of the turn, produced with continuative intonation and followed by a comment with final falling intonation. The comment here is a sententially grammatical structure with a one-place verb. The referring expression forms the context within which the pronoun *she* is to be understood, such that the sense of the utterance is something akin to *the woman from the other couple weeps*. Thus, there is some level of co-referentiality between the noun phrase and the pronoun, as would be expected of a fronted (left dislocated) noun phrase and the pronoun that is inserted in its place. However, this structure is not a true left dislocation, because the noun phrase and the pronoun do not refer to precisely the same entity; they are not fully co-referential.

This utterance is also interesting because Connie appears to reformulate it as a noun-initial structure after first attempting a sentential structure beginning with the pronoun *they*. The reformulation suggests that Connie perceives there to be a problem with establishing reference to this new entity. Indeed, *they* at this point in the verbal description could refer to either of the two couples. As a tied term, it signals a link to the immediate prior talk, and thus implies that a prior expressed referential item is being

talked about again. However, the prior talk was an assessment of the situation (*shock horror*, see transcript, Appendix 8, page 364, line 29) followed by the comment '...no food!' (page 364, line 34), and thus, neither utterance provides any context with which to clarify the pronoun. Connie restarts with '...other: couple:,...' to signal that she is talking about a *new* referential item; not the couple most recently discussed but the *other* one. Thus, the noun-initial structure in this test data has the same function as those examples seen in conversation.

The interactional sequence, seen in the TRIP, VAST and Cookie Theft data, whereby Connie seeks and receives acknowledgement from the tester of the adequacy · of an utterance for the task at hand, is also visible in the Dinner Party data. In addition, another striking interactional sequence emerges, whereby Connie and the tester jointly establish reference. Both sequence types have the same basic structure as noted in the sentence-level data: (1) a response to the picture, (2) a pause, and (3) an acknowledgement from the tester, as demonstrated in Extract 15 below:

Extract 15 Connie Jan00.dinnerparty#6.15

```
      →                                   ...t--------------------
15    →    Connie       (um) (0.8)        ⌈other (0.2) coup ⌈le
                                          ⌊((points left-right on 'other' and again on 'couple'))
      →                                              ⌊((tester begins to nod))
16    →                 -----------------------------------,,
      →                 ⌈(0.3)                   ⌈°yeh°
      →                 ⌊((tester continues to nod))  ⌊((Connie nods))
17    →    tester       mhm
18    →    Connie       (0.2) (m) /tɪɛs/  ⌈up-,
      →                                  ⌊((tester begins to nod))
19    →                 ⌈(0.8)
      →                 ⌊((Connie continues to look at picture, as if more talk is to come, tester still nods))
      →                 ...t---
20    →                 ⌈(0.5)
      →                 ⌊((tester continues to nod))
21    →    tester       ⌈righ  ⌈t
                        ⌊((Connie does brief gesture towards tester))
      →    Connie gaze  -----------,,
22    →    Connie            ⌊>°yeh°<
23                      (0.4)
24         tester       yeah
                                 ...t---
25         Connie       (1.1) greet them? ⌈(0.6)
                                          ⌊((tester, who is looking at picture, begins to nod))
```

In this extract, Connie delivers, as her response to one of the pictures, the sentential structure: '...other (0.2) couple.../tɪɛs/ up-,...' (lines 15 and 18). However, she does

not produce this in a single stream of talk, but rather creates a space after the noun phrase *other couple* in which both the tester and she can jointly establish co-orientation to the persons named before she continues with the utterance. The referring expression itself is produced hesitantly, after both a filled and unfilled pause. Connie not only prompts the participation of the tester by pausing for 0.3 seconds (line 16), she also does so non-verbally, by looking up from the picture to make eye contact with the tester as she delivers the noun phrase (see gaze transcript above lines 15 and 16). The tester acknowledges the noun phrase by anticipating its completion – she begins to nod in overlap with the final syllable of *couple* and continues to do so during the pause (see gloss of lines 15 and 16). Connie provides a quiet verbal acknowledgement of their joint agreement in line 16 (°yeh°) as she resumes her study of the picture (see gaze transcript above line 16). By breaking eye contact at this point, she signals that she has received the confirmation she was seeking, and that she will resume her utterance. The tester then upgrades the acknowledgement from a nod to a verbal receipt token ('mhm') in line 17. Following this, Connie continues her talk by producing the next element of the construction.

Having produced '.../tɪɛs/ up-,...' (line 18), Connie pauses, signalling that she will say more by producing *up* with a cut-off and with continuative intonation (marked by a comma in the transcript), and by continuing to study the picture (see gloss of line 19). The tester begins to nod her acknowledgement in overlap with *up*, despite the fact that Connie is not looking at her. After 0.8 seconds of silence, Connie ends her study of the picture and proceeds to re-engage with the tester (see gaze transcript above line 20). A pause of 0.5 seconds occupied with mutual gaze ensues, during which the tester continues to nod. The tester then verbally acknowledges Connie's utterance-so-far with 'right' (line 21). At the end of this acknowledgement, Connie looks back down to the picture. She does not re-engage with the utterance she is producing, despite having signalled via prosodic means that it is incomplete as it stands. Rather, she replies to the tester's receipt token with '>°yeh°<' (line 22), and after a pause and a passing turn from the tester, she moves on to the next part of the story (see line 25). Thus, Connie seems to treat the tester's response at line 21 as an indication that the incomplete utterance is an acceptable description of the picture in question.

This extract shows Connie treating (i) production of an acceptable utterance, and (ii) reference production, as matters to be settled with the tester before she (Connie) can continue to say something more. The hesitant delivery of elements, subsequent pausing and eye contact with the tester all suggest that Connie is treating both the referential

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item and the utterance as a whole as potentially problematic, and that she is inviting the tester to signal recognition or initiate clarification. In this way, the production of an acceptable utterance and the establishment of reference become interactional sequences in their own right. As was noted for the sentence-level data, such sequences can have consequences for the form of utterance that Connie produces. Firstly, the sequence establishing the acceptability of an utterance leads Connie to abandon an incomplete construction, which she may have completed, if the tester had not become engaged in the narrative at that point. In sum, the utterance, and ultimately the narrative, becomes a joint construction, not merely a reflection of Connie's performance. Secondly, the sequence establishing the new referential item results in the disconnection of the noun (phrase) from the rest of the utterance via the insertion of a pause and receipt term. If intonation was not considered, the referring expression could be analysed as a 'stand-alone' element, and thus as an agrammatic utterance, rather than as the initial part of a larger structure. The effect of interaction on a test which elicits a monologue is unexpected; it is not generally considered to be a factor that can influence grammatical form. Analysis of the complete Dinner Party narrative reveals that, although joint establishment of reference occurs only at line 15, Connie looks to the tester for similar receipt at the end of *all* utterances that she produces, regardless of whether or not she encounters difficulty in completing them. Therefore, interactive construction of the acceptability of an utterance during this task is pervasive.

Finally, it is interesting to consider the length and frequency of pauses in the Dinner Party data. Pauses that precede the beginning of an utterance can be as long as 5.3 seconds (see page 364, line 08). In some cases, Connie does not pause before beginning an utterance, but rather initiates talk with fillers such as 'm' and 'tuh', and then pauses before continuing. Intra-utterance pauses are frequent and range in length from less than one tenth of a second to 2.2 seconds. It is common to see pauses preceding each element of an utterance (see utterances in Table V, page 133, for example).

6.3.3 Cinderella story telling

The production of structurally adequate sentential utterances similar to that of TRIP and the VAST, the Cookie Theft and the Dinner Party data, also extends to the Cinderella story telling. In addition, as in the Dinner Party data (but in contrast to TRIP, VAST and Cookie Theft data), other sentential structures appear to be missing one or more arguments and/or a verb. However, in comparison to the Dinner Party data, there are

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very few structurally adequate sentences and many more utterances that appear to be missing elements. Whereas in each of the Cookie Theft and the Dinner Party data sets there is one structure that resembles the novel noun-initial construction of conversation, in the Cinderella story telling there are two structures that resemble the conversational construction with an initial temporal element. Interactional work to (i) jointly agree the acceptability of an utterance and to (ii) establish reference is also visible, as in the Dinner Party data (only the former is seen in the Cookie Theft data). Each of these findings will be discussed in turn. A full transcript of the Cinderella data can be found in Appendix 8, page 366.

There are three structurally adequate sentential utterances visible in the Cinderella story telling. These are shown in Table VI below. Two appear to be grammatically well-formed, whilst the third, at line 60, lacks a subject-verb agreement marker.

transcript line number	transcript#7
14-16	(0.2) m (0.7) tuh Ci:nde:re:lla:, (1.6) mm (7.7) lost her shoe.
60	↑which one, (0.4) (/gɪʔ/) the shoe.
76-77	eh (1.7) they(a)ll- (1.3) /k/a:lway:s (1.1) live happy ever after.

Table VI. Sentential structures produced by Connie during the Cinderella story telling.

Most of the other utterances that Connie produces represent attempts at sentential structures where one or more arguments, and/or a verb, appear to be missing. These are shown in Table VII:

07	m tuh (3.2) (↑)go to (0.3) ball.
49-50	em (0.9) m- tuh >leven o'clock,< (0.7) m (1.2) tuh go home.
53-54	°hh mm tuh midnight, (0.8) m (0.2) run away, (0.2) (from) (0.2) the ball.
60-61	(0.4) ugly sister, tuh are trying (on).
62-63	m- (1.1) too sma::ll, um (0.4) tuh (0.9) big=yeh.
65	m tuh (0.4) Cinderella, (0.6) fit(s), perfectly.

Table VII. Sentential structures produced by Connie during the Cinderella story telling where one or more arguments and/or a verb appears to be missing.

Of the six utterances in Table VII, three lack a Theme – lines 07, 49-50 and 53-54 lack a subject noun phrase[20] – and one (lines 60-61) lacks a Goal required by the 2-argument verb, *try on*. Another (lines 62-63) has no verb and no arguments; it is built of adjectives. In the utterance at line 65, there seems to be some trouble with the assignment of arguments for the verb *fit*, such that *Cinderella* sounds a little odd in the subject position when there is no reference to *what* fits.[21] When the position of each utterance within the sequence of the narrative is considered, five of the six appear to be agrammatic, because the argument is noticeably absent (line 07, lines 49-50, lines 53-54, lines 60-61 and line 65). It is harder to make a judgement about the sixth, adjective-based utterance. The first element, '…too sma::ll,…', seems grammatical given its sequential position; it appears to be elliptical, to use linguistic terminology. The second element, '…big=yeh.', is obviously linked to the prior context of '…too sma::ll,', but the grammar appears noticeably spare, even for this sequential position. There are many more examples in the Cinderella data of sentential structures with noticeably missing elements than there are in the Dinner Party data.

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[20] Note that the structures in lines 49-50 and 53-54 are discussed below as conversational constructions because of the initial temporal element. However, for the moment the focus is on the hearable lack of a Theme.

[21] In line 60, Connie says: '…↑which one, (0.4) (/gɪʔ/) the shoe.', demonstrating the same slightly quirky use of a person in subject position with what is possibly an attempt at the same verb, *fit*, but here there is an object too, which makes it sound less unusual.

In addition to sentential structures, there are two utterances that resemble turns at talk in conversation that have an initial temporal element (see section 5.2.2, page 81). These are shown in Table VIII below:

transcript line numbers	transcript#7
49-50	em (0.9) m- tuh >leven o'clock,< (0.7) m (1.2) tuh go home.
53-54	°hh mm tuh midnight, (0.8) m (0.2) run away, (0.2) (from) (0.2) the ball.

Table VIII. Utterances in Connie's production of the Cinderella story telling that have an initial temporal element.

The temporal element of each utterance, *eleven o'clock* (subsequently corrected to *twelve o'clock*, see main transcript, line 51) and *midnight*, is fronted, produced with continuative intonation and followed by an account of an event with final falling intonation. Each account is designed as an attempt at a sentential grammatical structure, but is hearably missing an argument in subject position (see Table VII and related discussion, above). The temporal elements resemble those in Connie's conversation – *last week* and *June* – which function to convey timing in the absence of tense marking. It seems that temporal elements may occur here in the Cinderella data, as opposed to in the Cookie Theft and Dinner Party data, as a result of the nature of the task – telling a story from memory. Temporal phrases commonly feature in conversation as launch terms for a story telling (Jefferson, 1978). Indeed Connie produces a highly stereotypical story entry device when she starts the Cinderella story: 'long long time 'go.' (see main transcript, line 02). The two elements used here are designed to convey information about the timing of a specific event within the story. Thus, it may be that the task of telling the Cinderella story without the aid of pictures encourages the use of temporal elements as markers of the stages of the story, in much the same way that speakers in conversation mark the beginning of a story, to alert their listener to the fact that an extended telling will follow.

As in the Cookie Theft and Dinner Party data, an interactional sequence emerges from the Cinderella story telling, whereby Connie seeks and receives acknowledgement of the acceptability of an utterance from the tester. In addition, as in the Dinner Party data (but in contrast to the Cookie Theft data), Connie and the tester also work to jointly establish reference. Both phenomena follow the sequence (i) a response to the picture,

(ii) a pause and (iii) an acknowledgement from the tester, as demonstrated in Extract 16 below, taken from the very beginning of the story:

Extract 16 Connie Jan00.cinderella#7.01

```
01        tester    so can you tell me the story
                            ...t-------------------------------,,
02        Connie    mm tuh (0.8) long long time      ⌈'go.
                                                     L((T begins to nod))
03        tester    ok      ⌈ay
     →                                       ...t-----------------------------
04   →    Connie            Lmm (0.4) tuh (0.3)      ⌈prince, (.)      ⌈nuh- (0.4)
     →                                               L((points towards T))  L((flourish of hand))
     →                      -----------------------------------------------⌐,,
05   →    Connie    ⌈king, (.)                        ⌈°(n)uh°         ⌈(0.3) (uh)
     →              L((flourish, T does a mix of nod/shake))  L((flourish))  L((stops gesturing, shrugs, smiles))
06   →    tester    ⌈whatever=
     →              L((shrugs, moves head around, a mix of nodding and shaking))
     →              ...t----,,          ...t-----------------------------
07   →    Connie    =yeah m (3.2)    (↑)go to (0.3) ball.      ⌈(0.5)
                                                              L((T begins to move head))
08        tester    ⌈mhm
                    L((nods once))
                    ----------------------------------------,,
09        Connie    (0.7)      {↑u↓gly ↑sis      ⌈↓ters(,)}
                               {slow, syllable-timed............}
                                                  L((T begins to nod))
10                  ⌈(0.8)
                    L((T continues to nod))
11        tester    °mhm°
```

In this extract, after starting with a highly stereotyped story initiation device (line 02), Connie introduces the new referring expression *prince* but quickly rejects it (line 04). Her production of the noun has continuative intonation, which suggests this is an utterance-in-progress. Whilst producing the noun, Connie establishes mutual gaze with the tester, and gestures towards her (see gaze transcript above line 04, and gloss below it). Connie then overtly rejects the referring expression with '...nuh-...' and a brief hand gesture to emphasise that there is a problem. Having signalled that reference is proving problematic, she pauses for 0.4 seconds, whilst still looking at the tester, seemingly for help. The tester says nothing. Connie then makes another attempt to establish reference, producing: 'king,' (line 05), but once again immediately rejects her efforts with '°(n)uh°'. Her gaze is still firmly fixed on the tester, and remains so for a further 0.3 seconds after her rejection of the second noun, again seemingly to engage the tester in joint establishment of the person in question. Receiving no response again, Connie looks down (see gaze transcript of line 05), stops gesturing, shrugs, smiles and

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produces the filler *uh*. This combination of verbal and non-verbal behaviours suggests that Connie has abandoned her attempts to establish the problematic referential item. Subsequently the tester says 'whatever' (line 06), whilst herself shrugging and performing a head movement which seems to be both a nod and a shake (see gloss of line 06). Connie is looking to the middle distance at this point. By responding in this way, the tester finally signals recognition of Connie's trouble but refrains from engaging with the interactional possibility that Connie has created for her (the tester) to comment on the choice of nouns that have so far been offered. The tester's response is minimal; she receipts both as equally valid possibilities, and passes up the opportunity to take a fuller role at this point in the narrative. Connie briefly looks up to acknowledge the tester's response with 'yeah...' (line 07), and then continues with 'm (3.2) (↑)go to (0.3) ball.' (line 07), looking up again to make eye contact as she says *go*. Although it is not possible to make a definitive judgement because of the quality of the audio recording, it seems that there may be a jump in pitch at the beginning of the verb (marked in the transcript by an up-arrow, in single brackets to signal uncertainty). Such disjunctive pitch can indicate that a new project is under way (Couper-Kuhlen and Selting, 1996), suggesting that the utterance at line 07 is not designed to follow on from the nouns proposed and rejected in lines 04 and 05. This reading would tie in with Connie's seeming abandonment, in line 05, of further attempts at reference. The utterance Connie produces at line 07 hearably lacks a referring expression. It is followed by a 0.5 second pause during which Connie continues to gaze at the tester, who begins to move her head as if to nod. The tester then goes on to verbally receipt the utterance at line 08 whilst nodding once, and it is only then that Connie proceeds with the narrative. She does so by moving on to talk about the next part of the story, *ugly sisters* (line 09). She does not return to her utterance at line 07, despite its missing referring expression, which suggests that she has taken the tester's acknowledgement as an acceptance of the structure.

Thus, Connie collaborates with the tester to agree the acceptability of an utterance before continuing with the next part of the narrative, as she does during the Cookie Theft and Dinner Party tasks. As is the case for the Dinner Party data, Connie seeks and receives acknowledgement of *all* utterances she constructs as part of the Cinderella story telling. However, in contrast with the Dinner Party data, there is much more mutual gaze between Connie and the tester throughout the task – there are no pictures to

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be the focus of attention[22] – and thus, looking up to establish mutual gaze is no longer observed to be an indicator of the establishment of collaboration, as in the Dinner Party and Cookie Theft data. Rather it is the post-referring expression/post-utterance pause, during which Connie *maintains* eye contact, which signals a move on her part to engage the tester.

In addition, Connie and the tester jointly establish reference in the Cinderella narrative, as in the Dinner Party data. In the Cinderella extract presented above Connie encounters significant trouble with reference, and the tester resists being drawn into helping her resolve the problem. In addition, there are two examples where the tester receipts a new referring expression before Connie proceeds to complete her utterance. Both are mentions of *ugly sisters* – the first of which can be seen in Extract 16, above, at line 09. As in the Dinner Party data, the production of an acceptable utterance and the establishment of reference become interactional sequences in their own right, which can alter the form of the utterances that Connie produces. As a result, the Cinderella narrative can be said to be a collaborative construction between Connie and the tester.

The issue of whether such interactional sequences could be said to be testing behaviours or something more pervasive, which occurs in conversation as well, will be considered in section 6.4, a comparison of test data and conversation, on page 146.

Finally, it is interesting to consider the length and frequency of pauses in the Cinderella data. Pauses that precede the beginning of an utterance can be as long as 0.7 seconds (see line 09 in Extract 16, above). In most cases, however, Connie does not produce an utterance-initial pause but rather initiates talk with combinations of fillers such as 'm', 'um' and 'tuh', and then pauses before continuing. Intra-utterance pauses are frequent and range in length from less than one tenth of a second to 7.7 seconds (see full transcript, line 15).

6.3.4 summary of performance on narrative tests and comparison with the findings of sentence-level tests

In summary, the clinical profile that emerges from the narrative data has both similarities and differences to the performance seen in the sentence-level test data. A key similarity is that sentences, or at least *attempts* at them, are a feature of the narrative data, as they are of the TRIP and VAST data. In addition, a key area of impairment is

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[22] Note that, in the administration procedure used here, although pictures are used to remind the person of the story prior to starting the task, these are removed from sight before the telling begins.

the same for both sentence- and narrative-level tasks – the production of well-formed utterances. All assessments reveal difficulties with morphology, which result in fluctuating omission of articles, subject-verb agreement and the auxiliary verb in present progressive tense constructions. Despite these problems, Connie can produce some utterances during narratives that are grammatical, as she can during TRIP and the VAST. The speed of production of narrative utterances, whether grammatical or not, can be extremely slow, and this, again, is the case for all test data. The narrative-level data show a similar pausing pattern to that of the sentence-level data. The length of a pause in the narrative data ranges from less than a tenth of a second to 7.7 seconds. This compares to 0.1 – 5.8 seconds for TRIP, and 0.1 – 8.8 seconds for the VAST.

Finally, an interactive sequence whereby Connie and the tester jointly agree the acceptability of an utterance for the task at hand is common to all test data, both at sentence- and narrative-level. Joint establishment of the acceptability of an utterance involves Connie soliciting a receipt token by making or maintaining eye contact with the tester whilst leaving a space in which the tester can respond. During both sentence- and narrative-level tasks, there are occasions where Connie invites the tester to respond when it is clear that she is having problems reaching the end of her utterance, for example, when a word is hearably missing or when she has signalled via intonation that she will say more but then the utterance comes to a halt. At these points, the tester has the option to help Connie to finish the utterance or to give a minimal receipt of it in its incomplete state. During the sentence-level tasks, the tester tends to offer help, cueing completion of the utterance. However, during the narrative tasks, the tester gives a minimal receipt. Thus, the tester's behaviour seems to be fitted to the type of task being completed, whereby she keeps her own talk to a minimum during an ongoing narrative where Connie has extended rights to speakership, but is not bound by the same restrictions during single-utterance-oriented tasks. Connie always treats a receipt token as an acceptance of the utterance in its current form. She demonstrates this by moving on to the next utterance, rather than attempting to continue the prior one. In such a situation, then, the tester's receipt of the utterance influences Connie's grammar – the sentential structure remains incomplete – and the narrative becomes an interactionally produced phenomenon, and not simply a reflection of Connie's skills.

Key *differences* between Connie's performance on the narrative-level and sentence-level tests are the occurrence during the narratives of (i) sentential utterances with noticeably absent arguments, (ii) utterances that resemble the novel constructions of conversation rather than sentential structures, and (iii) interactional sequences during

which Connie and the tester jointly establish reference. These issues will now be discussed in turn.

The production of an utterance that appears agrammatic, because one or more arguments are noticeably absent given its position in the narrative, occurs twice in the Dinner Party data. In the Cinderella data, six utterances appear to be noticeably missing argument(s) given their sequential position. There are no noticeably missing arguments in the Cookie Theft data, and Connie produces all arguments required by a verb in sentence-level tests. This increase in noticeably absent arguments from sentence to narrative level, and, within the latter, from composite picture to cartoon strip to story telling, suggests that task demands might be relevant. Whereas TRIP and the VAST present only one event per picture, and the Cookie Theft task, although a composite picture, depicts only a few events in total, both the Dinner Party cartoon strip and the Cinderella story involve many events, and the order in which they occur is relevant to the task. This suggests that there may be increased demands for the Dinner Party and the Cinderella tasks, in comparison with all other tasks, with respect to the sheer number of events to be conveyed via a sentential structure. This may influence the number of noticeably absent arguments in the utterances produced. Furthermore, the Cinderella story telling, a task unsupported by pictures, would seem to present even more demands on Connie in this regard than the Dinner Party task, with its cartoon strip of events. This may explain why the number of noticeably absent arguments is higher for the Cinderella data than the Dinner Party data.

In addition to sentential structures, the narrative data contains a few utterances which appear to resemble the novel constructions of conversation. These utterance types never occur in data elicited by the sentence-level tasks. The Cookie Theft and Dinner Party narratives each contain one example of an utterance with an initial noun followed by an account to which it is contextually linked. In both cases, the utterance functions to introduce a new referential item to the narrative, and thus can be seen to be designed to achieve the same communicative end as the comparable conversational construction. The Cinderella story telling contains two instances of conversational-type constructions with a temporal element in initial position, followed by a linked account. Utterance-initial temporal elements occur exclusively in this data set. One reason for this may be that, as Jefferson (1978) notes, temporal elements are commonly linked to story telling. The Cinderella story telling is a task that resembles the behaviour of telling a story in conversation, since it is a memory task, rather than a picture-based description. Although the other two narrative tasks could be considered to be stories

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too, the Dinner Party task probably more so than the Cookie Theft picture description, they both create a situation where Connie and the tester have sight of the possible 'contents' of the story, and in the case of the Dinner Party task with its cartoon strip, they also share a joint concept of the order of events and the outcome. This makes the story predictable for both people, especially in terms of the unfolding sequence of events over time, in a way that the Cinderella telling is not. Although it is a familiar tale, the Cinderella story can be told with a degree of freedom concerning what is said and in what order (within certain basic bounds), which in turn creates more need for temporal elements to map the progression of the story. The Cinderella story telling therefore shares some common ground with the act of telling a story in conversation, where information about the timing of events is key, because it permits the recipient to understand the significance of what they are being told. Telling a story to a person who has access to the temporal order of events via pictures may have the effect of decreasing the amount of temporal information that is expressed. This may explain why Connie only produces utterance-initial temporal elements during the Cinderella story telling.

The presence of such novel constructions in the narratives but not in the sentence-level data suggests that the narrative tasks share some common feature(s) with conversation that promote their use; features that are lacking in sentence-level tasks. One possible explanation is that, during the sentence-level tasks, the focus is on *form*, with the sentence as a priority, but that during the narratives (and especially the Cinderella story telling from memory) *function* becomes more of a priority. This in turn implicates actions such as introducing a (new) referential item and signalling the temporal nature of the unfolding events, functions which are akin to 'actions' of conversation. This point is discussed further in section 6.4, a comparison of test data and conversation.

In addition to novel constructions, the narrative data also reveals a distinctive form of interaction between Connie and the tester. The focus of this interaction is joint establishment of reference. This occurs once in the Dinner Party cartoon strip description and three times in the Cinderella story telling, but not at all in the Cookie Theft picture description. Joint establishment of reference occurs when Connie indicates some trouble with a new referring expression that she is introducing to the narrative. She pauses, delivers a hesitant production, and at times even rejects the noun (phrase) outright, before soliciting a receipt token by making or maintaining eye contact with the tester whilst leaving a space after the noun (phrase) in which the tester can respond. After this sequence is completed, Connie continues with her utterance-in-

progress. As a result of the joint work done by Connie and the tester, a new referring expression can become sequentially and temporally disconnected from the rest of the utterance to which prosody suggests it belongs. As narrative data is usually transcribed minus the interactive behaviours detailed for this study, there is a real danger that such referring expressions could be viewed as agrammatic single word utterances in their own right, rather than the first word of a structure in progress. This interactive behaviour suggests that the Dinner Party and Cinderella narratives are joint constructions of both Connie and the tester, rather than a reflection of Connie's skills *per se*. The fact that there is no joint establishment of reference in the Cookie Theft data, nor in the sentence-level data suggests that task demands might again be relevant. Whereas the VAST presents only one or two persons per picture, the TRIP one, two or three, and the Cookie Theft task, although a composite picture, depicts only three persons and a few key objects in total, both the Dinner Party cartoon strip and the Cinderella story implicate many potential referential items. This suggests that there may be increased demands for the Dinner Party and the Cinderella tasks, in comparison with all other tasks, with respect to reference. This may influence the number of referential problems that arise in the utterances produced for these narratives. Furthermore, the Cinderella story telling, a task unsupported by pictures, would seem to present even more demands on Connie in this regard than the Dinner Party task, with its cartoon strip of events to cue naming. This may explain why the number of referring expressions that are jointly established is slightly higher for the Cinderella data (three examples) than for the Dinner Party data (one example).

6.4   A COMPARISON OF TEST DATA AND CONVERSATION

The following section presents a discussion of the key findings that arise out of a comparison of Connie's test data and conversation.

6.4.1   sentential structures dominate Connie's test data but her conversation reveals alternative grammatical constructions

Data analysis clearly shows that Connie's grammar looks considerably different in the context of conversation than it does in the language elicited using clinical tests. Analysis of turn construction in conversation reveals two distinctive grammatical phenomena: the first is fronting of a noun or noun phrase into turn-initial position, the second is fronting of a temporal element into turn-initial position. In a turn that is

constructed using a noun or noun phrase in initial position, elements are packaged into a single construction via sequential, prosodic and pragmatic means, rather than by grammatical linkage; there is no verb. In turns that begin with a temporal element, the subsequent account contains a verb, and thus the construction demonstrates some level of grammatical structure. However the verb lacks tense marking; the temporal element functions to signal the timing of the event being conveyed. It is possible for such turns to display fronting of a noun in addition to fronting of the temporal element. The temporal element is packaged together with subsequent talk to form a single construction via sequential, prosodic and pragmatic means. The function of these novel constructions is to introduce talk about a new referential item (noun-initial constructions), or about a completely new topic of talk (temporal element-initial constructions).

In contrast, sentences are a major feature of the data elicited by both the sentence-level and narrative tests, and Connie is successful in producing structures with up to three arguments. It is interesting to note that, although the task of narrating is considered to be closer to conversation than the task of describing a single event, the data it elicits has more in common with sentence-level data than with conversation. The sentential structures of testing look very different to the novel constructions of conversation, because the initial element of a test response is always the subject of the utterance. This is followed by a verb. Although some novel constructions begin with a noun that subsequently becomes the topical focus of the following comment, and thus could be called the 'subject' (noun-initial constructions), others do not (temporal element-initial constructions). Perhaps more importantly, the element that follows the initial element of a novel construction is *never* a verb, not even when the initial noun is the 'subject' of the turn. Thus, the grammatical progressivity of sentence-level utterances is much more tightly organised than that of turns in conversation.

Novel constructions are not exclusive to the conversation data, however. Utterances with an initial noun followed by a linked account do occur in the narrative data, but only rarely (one in each of the Cookie Theft and Dinner Party narratives). As in conversation, linkage of the initial noun with what follows is achieved via sequential, prosodic and pragmatic means, and the construction introduces a new referential item to the narrative. Utterances with an initial temporal element also occur, again in small numbers, and only in the Cinderella story telling data (two examples), where they convey information about the time of occurrence of a specific event in the story.

The occurrence of novel constructions that resemble those of conversation in the narratives but not in the sentence-level data may be motivated by a shifting focus across tasks from sentential form to utterance function. The narrative tasks create an environment in which it is important to introduce referential items in a manner that distinguishes them unequivocally from others, and also to specify the timing of events within the story. These demands are akin to those of conversation, where Connie is motivated to establish reference and to convey the timing of events in the absence of tense marking. Neither issue is a priority in the sentence-level tasks, where the key focus is on sentential form and the expression of a single event depicted, by necessity, as in progress, not a past or future event requiring temporal information to be conveyed as a vital part of meaning. Obviously, reference to persons and things does occur, but it seems to be easier to achieve because of the restricted focus on an isolated, pictured event. Most of the VAST pictures show only one person involved in an event that may, on occasion, involve an inanimate object. Given this test environment, Connie favours the use of pronouns for person reference. The few pictures that show a person acting on another person depict a man and a woman, and so a pronoun will still suffice to distinguish who is doing what to whom. TRIP is somewhat different, in that it aims to elicit one to three *full* referring expressions per picture, all of which may be animate, but still there is no need to specify reference to person in any great detail. In fact, there is a sense in which the test, with its pictures and modelling, converts what would usually be termed non-recognitional person reference forms (Schegloff, 1996b) – the man, the boy, etc. – into recognitional forms. The pictures contextualise these 'general' and non-specific reference terms by severely limiting the number of referential items that they could represent. This allows such general terms to easily identify a specific person in the picture. In addition, by rehearsing the person reference terms that will be used in the test proper, the tester and Connie jointly establish them to be acceptable before the test begins. Given that all referential items are pictured, it seems that sentence-level tasks not only require less specificity with respect to reference, they also visually cue the production of reference terms, thus considerably simplifying the process of reference *per se*.

In summary, Connie's use of novel grammatical constructions in conversation is motivated by the need to establish reference to one specific person or thing from a potentially infinite set of possible referential items, and to signal the timing of events in the absence of tense markers. These demands do not seem to exist in sentence-based

testing environments, but may occasionally become relevant during the production of narratives.

6.4.2 Connie is capable of producing grammatically well-formed utterances, both during conversation and testing

Morphological impairment is visible in all test data, where it is characterised by fluctuating omission of (i) articles, (ii) the auxiliary verb in present progressive tense and (iii) subject-verb agreement markers. Qualitative analysis of the data from the sentence-level tasks shows that the percentage of responses that constitute grammatically well-formed utterances is at most only 20% of a data set. However, the fact remains that Connie is able, despite her agrammatic aphasia, to produce a small number of structurally and morphologically well-formed utterances during both sentence- and narrative-level tests. These utterances include one-, two- and three-argument structures. They are produced, as are all utterances elicited via testing, with excessive and lengthy pre- and intra-turn pauses. The finding that Connie can produce fully grammatical utterances extends also to the conversation data.

In conversation, where utterances are judged to be grammatical if they represent the basic, unmarked construction for the sequential position in which they occur (Schegloff, 1996a; Heeschen and Schegloff, 1999), Connie shows a tendency to produce a grammatical utterance as the first pair part of a new sequence which is closely tied to the sequence that precedes it. Such sequentially grammatical turns seem to progress smoothly towards completion with little or no pausing or self repair in evidence. Examples of the type of first pair part that Connie is able to produce as a grammatical utterance include questions such as 'how d'you make them?' and assessments such as 'you ate it all'. The turn is tied to the prior sequence via pronouns, which express most, if not all, nouns. In terms of reference to persons, this can be characterised as the use of locally subsequent reference forms in locally subsequent reference positions (Schegloff, 1996b). The use of pronouns to refer not only to persons but also to objects may be beneficial for Connie's grammar because it reduces processing demands by removing the need to access a reference form that will identify a person or thing for the *first* time, i.e. a name or a full noun phrase, and the subsequent requirement to integrate that form into an utterance. The sequence-initial position in which these well-formed utterances appear may also be advantageous for grammaticality, because first position is not constrained by the immediately prior talk in the way that second, or 'response' position is. Thus, in first position Connie is relatively free to decide whether to formulate a turn

or not, and, should she decide to do so, there are few constraints on the turn's form or on the action it can be designed to do. Compare this with second position, where she is accountable not only for producing a turn in response to the prior turn, for example, an answer in response to a question, but also for responding without delay that may signal dispreference, and for designing the turn to 'fit' as a response to the prior, that is to provide an *acceptable* answer, if the prior is a question.

Whilst there is a predominance of pronouns as reference forms for persons and objects in the grammatical utterances produced during conversation, the well-formed structures produced during testing reveal variable methods of reference. In the TRIP data, reference is achieved via the form *(a/the)* + *X*, where X is a noun that identifies (i) the pictured animal or inanimate object – for example, *pig, horse, cup, present* – or (ii) the pictured person – *boy, girl, children, man*. Thus, all reference to persons, animals and inanimate objects are full noun phrase forms, not pronouns. This is the case whether or not the utterance produced is grammatical. The test administration procedure, with its tester modelling of responses, sets an expectation that the test items will be responded to in this way.

There is no such requirement for full noun phrase forms to be produced during the VAST. The data show that, of the six responses that are grammatically well-formed, three achieve person reference via use of a pronoun and object reference via a full noun phrase, for example:

VAST (i)31   knocking   '(5.5) m she's, (0.5) polishin' the door.'

The other three contain the kind of person reference terms used during TRIP, and again make use of a full noun phrase if an object is referred to, for example:

VAST (ii)33   rowing   '(1.7) a man (0.4) is (0.2) rowing the: boat.'

Thus, the sentence-level data suggests that grammaticality and the use of pronouns may not be as closely associated as they are in conversation. Grammatical utterances found in the narrative data, collated in Table IX, below, lend further support to this idea:

narrative task	line number	
Cookie Theft#6	14-15	(6.4) °hhhh she doesn't know about it
Dinner Party#6	09-10	they, (0.6) /pɛəɹpeɪə/, (0.3) u- (0.6) the: meal.
	25	(1.1) greet them?
	32	m tuh (0.6) no food!
	46	(1.2) the cat, (0.5) ate the, (1.9) meal.
Cinderella#7	14-16	(0.2) m (0.7) tuh Ci:nde:re:lla:, (1.6) mm (7.7) lost her shoe.
	76-77	eh (1.7) they(a)ll- (1.3) /k/a:lway:s (1.1) live happy ever after.

Table IX. Grammatical utterances produced by Connie during narrative-level tests.

As this table shows, the occurrence of pronouns in the grammatical utterances of Connie's narrative data is not as widespread as in the grammatical utterances of conversation. However, it is interesting that the one full sentential structure that is produced relatively fluently, and with no internal pausing: '...she doesn't know about it' (Cookie Theft, line 14-15), has both referential items conveyed via pronouns. In summary, the data suggest that, although the use of pronouns affords considerable grammatical advantages in the context of conversation, the same is not the case for the environment of language testing. One possible explanation lies in the off-line nature of assessment. This idea is explored in section 6.4.5 below.

6.4.3 Connie's ability to produce a wide range of verbs in tests contrasts with an observed lack of verbs in conversation

The data from the sentence-level tests indicate that Connie has access to a wide range of verbs. During TRIP she produces 89% of verbs accurately. For the VAST, the figure is between 70-78%. Complete omission of a verb in the sentence-level data is rare – there are only five examples in response to 125 items (4%). In addition, the tests also demonstrate that she can deploy verbs successfully in one-, two- and three-argument structures. The narrative data reveal that she can produce a verb in the majority of utterances where one is required – there is only one utterance in each of the Cookie Theft and Dinner Party narratives which appears to be hearably missing a verb. Given this, it is interesting to note that a number of her turns at talk in conversation do *not* contain verbs. One reason for the observable lack of verbs in some conversational

constructions is that they are designed to achieve something other than the action of conveying an event, and a verb is not vital for their purpose. One such alternative action is commenting on a noun. For Connie, this involves proposing a *state* for a person or thing, such as age (*middle one forty years old Valentine's day*) or occupation (*other girl teacher*). In all noun-initial constructions the verb is hearably missing, but this does not interfere with mutual understanding. Another set of constructions that do not contain verbs are those that are sequentially grammatical yet sub-sentential – linguists would refer to them as elliptical. For this type of construction, the verb is not hearably missing; it is not a required part of the basic structural form for that particular sequential position. Examples from Connie's conversation include *too much flour?* and *not too dry*.

When a verb *is* used in conversation, it can be part of the account following an initial temporal element, in which case it is not inflected for tense; instead the temporal element conveys the timing of the event. Examples are *last week you go out?* and *June three tier wedding cake I make it*. In addition, a verb can occur fully inflected in a sequentially grammatical utterance with all referential items expressed as pronouns, such as *how d'you make them*, *you ate it all* and *I bake it specially*. Both construction types reveal that Connie has a tendency to produce high frequency verbs that convey dynamic situations involving some kind of change over time (events), rather than static situations (states) (Black and Chiat, 2003). According to Black and Chiat, events typically involve something being *done*, whereas states are *properties* attributed to someone. If we consider Connie's practices of verb use in the light of this distinction, we see that when conveying an event, she is able to produce an event verb either in a novel construction with an initial temporal element or in a sequentially grammatical construction. However, when conveying a state, she produces a novel noun-initial construction that is hearably missing a state verb. The unexpected mismatch between testing, where verbs appear plentiful, and conversation, where there are utterances from which a verb is noticeably absent, seems to be a result of the fact that the sentence-level tests used for this study, and indeed most if not all others, focus on event verbs rather than on state verbs. This is because events are much more picturable than states – visualise *bake* and *eat*, for example, and then consider *be*. Because the sentence-level tasks do not provide an insight into Connie's ability to express states using verbs, the finding that she omits such verbs in conversation cannot be predicted from the results of testing.

6.4.4 tests suggest that tense is a problem but Connie has an alternative method for marking temporal reference in conversation

The fluctuating omission of articles, auxiliary verbs in present progressive tense and subject-verb agreement markers revealed by all levels of testing suggests that Connie has an impaired ability to manipulate morphology, a finding that is certainly in keeping with the agrammatic nature of her aphasia. One implication of this finding is that tense will be a pervasive problem for everyday interactions. However, analysis of the conversation data shows that this is not so. Connie's conversation with Jane reveals that a turn-initial temporal element can successfully convey temporal information in the absence of verb morphology. The resulting unconventional method of marking temporal reference is not treated as problematic by Jane. The data reveal one incident where it is Connie's attempt to mark tense in the 'normal' grammatical way that results in the need to repair trouble related to Jane's understanding of the timing of an event (see Extract 5, section 5.2.2), but no examples of the need for repair related to understanding temporal reference conveyed via a turn-initial temporal element.

6.4.5 the on-/off-line distinction between conversation and testing affects the way in which Connie constructs utterances

A striking feature of all test data is the frequent and lengthy pausing that occurs during utterance construction, regardless of whether or not the resulting response is grammatical. For example, during the Cinderella story telling, an intra-utterance pause of 7.7 seconds duration occurs. It is the off-line nature of the assessment process that encourages Connie to take such time to construct her utterances. A narrative task, by definition, affords a speaker a lengthy chunk of the conversational floor. In fact, its aim is to maximise the length of turns at talk by an aphasic speaker (Heeschen and Schegloff, 2003). Thus, Connie is able to complete the Cookie Theft and Dinner Party picture description and the Cinderella story telling in an environment where the normal rules of turn-taking have been temporarily suspended. She does not need to compete for her turn, and can therefore afford to take as much time as is necessary to construct utterances, knowing that she will not lose her turn through interruption. The same can be said of the testing situation for the VAST and TRIP.

In this regard, the environment of language testing is very different to that of conversation, which is highly turn-competitive. According to Jefferson (1989), the normal maximum length of an intra-turn pause in conversation is one second.

Excessive or lengthy intra-turn pausing in talk-in-interaction is strongly dispreferred because it is likely to result in loss of the conversational floor. In addition, it can be viewed as an overt sign of linguistic non-competence in interactions between speakers with aphasia and their non-aphasic co-participants (Wilkinson, 1995b).

A comparison of the occurrence of pausing in Connie's test data and conversation is highly illuminating. As was mentioned in section 6.4.2 above, sequentially grammatical structures in conversation do *not* exhibit the excessive pausing seen during the construction of sentential utterances during testing. They contain pronouns in the place of most, if not all referential items, because of their tied nature, and they progress smoothly towards the end of the turn with no discernible pausing evident. One explanation for this striking difference is that Connie is sensitive to the dispreferred nature of lengthy pausing in conversation, and is thus able to adapt her turn construction accordingly in this environment. By producing a tied turn that contains pronouns, which are known to aid progressivity in aphasia (Wilkinson et al, 2003), Connie can construct a turn that reaches a possible completion point in a relatively unproblematic way. The adaptation is not necessary in a language testing environment where normal turn taking practices do not apply. This may explain why pronouns and grammaticality tend to co-occur in the context of conversation, but not in the environment of language testing.

6.4.6 interactional sequences that occur during narratives can affect the grammatical form of Connie's utterances

An interactive sequence whereby Connie and the tester jointly agree the acceptability of an utterance for the task at hand is common to all test data, at both sentence and narrative levels. At the narrative level, there are occasions where this occurs when Connie is having difficulty completing a sentential utterance. The resulting receipt of the utterance as it stands, i.e. in its incomplete form, leads Connie to abandon her efforts to complete the structure in favour of moving on to the next utterance. As a result, Connie's grammar for that particular sentential structure is influenced by the interactive sequence – the structure is not solely a product of Connie's skill at manipulating grammar. The utterance remains incomplete because Connie takes the receipt to be an affirmation of the structure's acceptability for the task at hand. The fact that she does not attempt to complete or repair the structure should not be taken as a sign that she would be incapable of doing so. Similarly, a sequence involving joint establishment of a new referential item, which occurs when Connie indicates some trouble with a noun

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that she is introducing to the Dinner Party or Cinderella narratives, can also influence observable structures in Connie's output. As a result of the joint work done by Connie and the tester, a new referring expression can become sequentially and temporally disconnected from the rest of the utterance to which prosody and pragmatic considerations suggest it belongs. As traditional narrative transcription techniques do not tend to record the input of the tester or client behaviours such as pausing, gaze and prosody, there is a danger that such an expression could be viewed as an agrammatic single word utterance in its own right, rather than the first word of a structure in progress, which is undergoing an understanding check with the tester before the utterance continues. The investigation of interactive sequences suggests that the data are joint constructions of Connie and the tester, rather than a reflection of Connie's skills *per se*.

It is interesting to consider whether Connie's establishment or maintenance of eye contact at strategic points of silence during her responses represents some kind of test behaviour or whether something similar is seen in her conversation with Jane. Given the underlying interactive nature of the behaviour, occurrence in conversation seems highly likely, and indeed there are several examples of joint establishment of reference in two of the extracts discussed in Chapter 5 (Extract 2, page 78 and Extract 10, page 99) which appear similar to those of testing. With respect to Connie seeking acknowledgement of the acceptability of her utterance, there is an obvious parallel with a pervasive conversational phenomenon whereby gaze is used to manage face-to-face interactions, for example to mark the end of a speaker's turn at talk and thus signal the potential for speaker transition (Goodwin, 1981). As would be expected, this mechanism is seen at work throughout Connie's conversation with Jane. Although Jane's responses are geared towards mutual understanding, rather than being focused on sentential form, as the tester's are, the device whereby Connie initiates such interactional sequences is the same. In summary then, this behaviour is not exclusive to test environments. It is a key feature of all forms of face-to-face talk-in-interaction, of which conversation and testing are but two examples.

6.5   SUMMARY

This chapter has utilised traditional testing and analysis procedures in order to build a clinical profile of Connie's grammatical strengths and weaknesses. Section 6.2, performance on word- and sentence-level tests, reveals that Connie's strengths lie in

accessing nouns and verbs, and producing one-, two- and three-argument structures. Sentential utterances, particularly those with a two-argument structure, dominate the sentence-level data. Connie's main difficulty is the manipulation of morphology – at most, only 20% of utterances produced in response to a sentence-level test are grammatically well-formed. However, despite this, she is, on occasion, able to produce perfectly structured and inflected grammatical utterances. Connie's ability to construct a sentential utterance during a sentence-level task, whether or not it is grammatically well-formed, is an extremely slow process. If an interactional approach to the sentence-level data is taken, as in section 6.2.2.4, a notable sequence of behaviours between Connie and the tester emerges. The sequence functions to collaboratively agree the point at which an utterance is acceptable for the task at hand, and if Connie's utterance has run into trouble, the tester cues the completion of the as-yet-unfinished response.

Section 6.3, performance on narrative-level tests, uncovers the same profile of structural and morphological ability as observed in the sentence-level data, but reveals that task demands may have a detrimental effect on the ability to successfully complete structures. Thus, a number of utterances are produced with hearably absent arguments. This does not occur during sentence-level tasks. As was noted at the sentence level, Connie's ability to construct a sentential utterance, grammatical or not, is an extremely slow process. This is also the case during the narratives. Additional patterns of interest in the narrative data are uncovered if an interactional approach to the analysis is taken. This reveals that Connie uses grammatical constructions in the Dinner Party cartoon description and in the Cinderella story telling that resemble those of conversation, specifically the noun-initial construction detailed in Chapter 5, section 5.2.1, and the temporal element-initial construction of section 5.2.2. The approach also uncovers two distinctive interactional sequences between Connie and the tester. One sequence is identical to that seen during sentence-level data, whereby she and the tester collaboratively agree the point at which an utterance is acceptable for the task. However, unlike during the sentence-level tests, there is no subsequent cueing by the tester if Connie experiences trouble with completing her utterance. The tester merely provides a minimal receipt of the incomplete utterance, which Connie subsequently takes as an acceptance, and thus abandons the structure to begin the next. The other sequence, which is exclusive to the Dinner Party cartoon description and the Cinderella story telling, involves Connie and the tester jointly establishing reference. Both interactional sequences can affect the grammatical structure of Connie's response. Jointly establishing reference temporally and sequentially disconnects the referring

expression from the rest of the construction, potentially causing it to resemble an isolated 'agrammatic' element. Jointly agreeing the point at which an utterance is acceptable for the task results in Connie choosing not to complete or repair an agrammatic structure, but rather to move on to the next utterance.

Section 6.4, a comparison of test data and conversation, highlights the lack of a straightforward relationship between the grammar elicited from Connie by traditional clinical tests and the grammar of interaction seen in use in her everyday conversation. It is proposed in section 6.4.1 that constructions exist in Connie's conversation which represent *alternatives* to standard grammar. The fact that a few of these types of construction do appear in the more complex narrative tasks – the Dinner Party cartoon description and the Cinderella story telling – but never in the sentence-level data suggests that their use is motivated by function, not by form. Thus, it seems that the construction that functions to introduce a new referential item into conversation and to comment on it can also be useful for Connie in a narrative task when she needs to introduce a referential item and distinguish it from others that are also relevant to the task. Similarly, the construction that in conversation functions to indicate the timing of an event being recounted can also be used to convey temporal information during a narrative task such as the Cinderella story telling, which revolves around the timing of events. The observed importance of function to the use of such constructions suggests that grammar can be shaped by considerations other than the rules of a standard grammar. This idea will be explored in detail in Chapter 9, Discussion and clinical implications, on page 260.

Connie's ability to produce grammatical utterances during tests and conversation is compared in section 6.4.2. In both environments she is able to produce structurally and morphologically well-formed utterances. In conversation such constructions are almost exclusively built using pronouns in place of full noun phrases. This is made possible by the fact that Connie produces such utterances as a first pair part of a new sequence which is closely tied to the sequence that precedes it. They progress smoothly towards completion with little or no pausing or self repair in evidence. It is suggested that the use of pronouns may be beneficial for Connie's conversational grammar because it reduces processing demands by removing the need to access a referring expression that will identify a person or thing for the *first* time, and the subsequent requirement to integrate that expression into an utterance. The sequence-initial position in which these well-formed utterances appear may also be advantageous for grammaticality, because first position is not constrained by the immediately prior talk in

the way that second, or 'response' position is. The test data suggests that grammaticality and the use of pronouns may not be so closely associated as in conversation, because the off-line nature of assessment means that there is no time pressure to produce utterances quickly, and therefore there is less motivation to reduce processing demands by using pronouns.

Section 6.4.3 compares Connie's use of verbs between the test and conversational environments, and reveals that although omission of a verb from sentence- and narrative-level data is rare, it is more common to see conversational constructions without a verb. One reason for this is that some conversational constructions are designed to achieve an action other than that of conveying an event, such as commenting on a noun, and therefore a verb, although hearably missing, is not vital for mutual understanding. An example from Connie's conversation is *other girl teacher*. Another set of constructions without a verb are those that are grammatical yet subsentential, 'elliptical' in linguistic terms, and represent structures that do not require a verb, given their sequential position. In addition, the analysis of verb use in conversation reveals that Connie has a tendency to produce high frequency verbs that convey dynamic situations involving some kind of change over time (events), rather than static situations (states). This is not predictable from the assessment results because most, if not all, tests focus on event verbs rather than on state verbs, events being much more picturable than states. This finding has implications for clinical assessment of grammar, which will be discussed in Chapter 9, Discussion and clinical implications, on page 260.

A consideration of tense marking, in section 6.4.4, reveals that, although testing shows morphology, including verb inflection, to be a problem, Connie successfully uses an alternative method for achieving temporal reference in conversation – a turn-initial temporal element, such as *last week*, for example. This device is not treated as problematic by Jane.

Section 6.4.5 notes that frequent and lengthy pausing is a striking feature of all test data, but that pausing occurs to a lesser degree in conversation, particularly in sequentially grammatical utterances built with pronouns in the place of full nouns, where it is almost non-existent. It is suggested that Connie is sensitive to the dispreferred nature of lengthy pausing in conversation, and is thus able to adapt her turn construction accordingly in this environment. By producing a tied turn that contains pronouns, Connie can construct a turn that reaches a possible completion point in a

relatively unproblematic, pause-free way. This adaptation is not necessary in a language testing environment where normal turn taking practices do not apply.

An investigation of the interactional sequences that occur during the narrative tests, in section 6.4.6, reveals that they can affect Connie's grammar, making her utterances look agrammatic when in fact they are not. It is suggested that structures produced as part of interactional sequences are collaboratively produced, and are not solely a product of Connie's skill at manipulating grammar. This finding has implications for clinical assessment of grammar, which will be discussed in Chapter 9, Discussion and clinical implications, on page 260.

In summary, this chapter reveals that, in Connie's case, the relationship between elicited grammar and the grammar of interaction is not straightforward. Findings suggest that the environment of testing promotes a focus on sentential form, whereas in conversation, the function of an utterance, the action it is designed to achieve, promotes the construction of interactional alternatives to the sentence. This is not to say that the grammar of testing cannot be affected by interactional contingencies – the analysis suggests that it can, and that this results in adaptation to the testing environment. These points will form the basis of Chapter 9, Discussion and clinical implications (see page 260), where Connie's elicited and conversational grammar will also be compared with that of Roy.

Chapters 7 and 8, which follow, will present an analysis of the conversation and elicited language of Roy.

7 Turn construction formats in Roy's conversation with Di

7.1 INTRODUCTION

This chapter will explore turn construction formats in Roy's talk with Di. Section 7.2 documents novel formats where sequential, prosodic and pragmatic resources are exploited, in the absence of grammar, in order to package individual elements into a single construction. Section 7.3 focuses on Roy's use of Di's talk as a resource for turn construction. It documents two sequence types, one that involves the two of them collaborating to construct Roy's projected meaning, and another during which Roy retrospectively claims Di's talk as a version of what he 'means to say', although she did not design it in this way. The aims of the chapter are to document how Roy constructs turns at talk, and to explore the conversational actions that turns are designed to achieve. The chapter concludes with a summary of the types of turn construction format in Roy's conversation with Di (section 7.4).

7.2 NOVEL TURN CONSTRUCTION FORMATS

7.2.1 turn-initial noun: the action of commenting

This section will investigate turns that are constructed with a noun or noun phrase in initial position, followed by a word or words that serve to comment on the noun in some way. The construction resembles the non-aphasic discourse phenomenon 'referent + proposition, or topic-comment structure (see section 3.3.4, page 45), in that the noun or noun phrase is the focus of the comment that follows. It bears a resemblance to fronting, a phenomenon documented in aphasic talk by Wilkinson et al (2003) (see

section 3.5.2.2, page 58). The construction is illustrated in Extract 17, Extract 18 and Extract 19, below.

Extract 17 Roy/Di June00additional#4.*clerical or something boring*

Roy and Di are discussing her job as a nursery nurse. Prior to line 1, Roy has asked if she finds it interesting, and she has said yes.

```
1   →   Roy    >(I)=m ⌈ean-<
2       Di            ⌊it is.=
3   →   Roy    =uh- umagine th ⌈a/?/-
4       Di                      ⌊well I'm the room leader now!
5       Roy    eh heh heh heh heh heh °hhhh    ⌈°hhhh
6       Di                                     | teacher Di    ⌈ane
                                               ⌊((does quote marks in the air))
7       Roy                                                    ⌊EH
8   →          heh heh heh heh heh heh heh °hhhhhh yeh (0.4) bu- (0.1) but (0.3)
9   →          u::hh u- u:::h uh ⌈(say,)
10      Di                       ⌊s'only bin three minutes huh!=
11  →   Roy    =uh now, (0.4) u::m    ⌈(2.0) u::h- (1.7) uh-.
                                      ⌊((small, repetitive hand mmts))
12  →          /kə/- cleri(.)/(k/p)/al or something, (.) bo:r:in    ⌈g innit
13  →   Di                                                          ⌊a:w=>I
14  →          couldn't< be (in)-
15      Roy    ⌈i- i- i- i- i- i-            ⌉
16  →   Di     ⌊I could not be a re    ⌋cep    ⌈tionist ⌉
17      Roy                                    ⌊i- ex    ⌋ac'ly (.)
18             yeah, (0.3) ↑but, ...
```

The turn of interest in this extract is produced only after Roy has made several attempts to secure the conversational floor. Elements designed to gain a turn can be seen in lines 1, 3, 8 and 9. Each time, Roy loses the floor to Di's incoming. Finally, at line 11, Roy succeeds in securing a turn. After the pre-beginning turn gaining element 'uh...', he continues with *now*, an element that is designed to project that a construction will follow, but in a way that does not at this point commit him to producing a particular type of construction. The prosodic quality of this element serves to project that more talk is to come, through continuative intonation. After filled and unfilled pauses, he begins a construction with a new referring expression: '...cleri(.)/(k/p)/cal or something, (.)...' (line 12). The micro pause that follows is designed to give Di the opportunity to signal a problem with reference, but the option is not taken up, and so it seems that reference is established without difficulty (Auer, 1984). The noun phrase is followed by a comment that consists of a single word, the adjective '...bo:r:ing...' (line 12). The adjective functions to do the conversational action of assessment. In terms of a positionally sensitive grammar (Schegloff, 1996a), the turn is hearably missing a verb. As a result, no grammatical link exists between the noun phrase and the comment.

However, despite the agrammatic nature of the turn, the lexical items are clearly packaged as one construction via sequential, prosodic and pragmatic means. Firstly, the nextness of the noun phrase and the adjective exploits the recipient's tendency to assume links between sequentially adjacent elements of talk (Sacks, 1992). Secondly, the fronted noun phrase is produced with non-final prosody, marked by a comma in the transcript, indicating that this is a turn-in-progress, and thus also suggesting a link between the noun phrase and subsequent talk. The end of the turn is not marked prosodically, but rather it is signalled by the presence of the tag question form *innit*. Thirdly, in pragmatic terms, a complete turn is marked by the completion of the conversational action of assessing a referring expression; that is, at the point at which the adjective has been expressed. The noun phrase in isolation does not convey a complete action.

The construction is clearly initiating a new sequence via the introduction of a new referential item. The referring expression is, however, linked to prior talk – it is a different exemplar of the category *jobs*, made relevant by prior discussion of the characteristics of Di's job. Interestingly, the new referential item is conveyed solely by an adjective, *clerical*; the noun *job* remains unexpressed. The adjective is able to act as a noun in this turn by projecting that it is modifying the noun *job*, and also by having noun-like properties projected onto it by being directly contrasted with the pronoun *something*. Despite a lack of grammatical links, and the communication of a noun via an adjective, Di has no difficulty in understanding and responding to the meaning of Roy's turn. In fact, she makes an early display of understanding at the recognition point of the word *boring*. Her response, 'a:w=>I couldn't< be (in)- I could not be a receptionist...' (lines 13, 14 and 16), indicates that she has interpreted the turn as conveying a single conversational action. To do this, she has analysed the sequential, prosodic and pragmatic cues. The lack of grammar is not problematic for mutual understanding.

A second example is shown in Extract 18, below:

Extract 18 Roy/Di June00additional#3.*Ruby or Keith fly*

Di has been commenting on how fast she feels the year has gone so far, and how it won't be long until Christmas comes around again.

1	Di	a year used to be such a long time
2	Roy	(0.1) yeh, but you know what,
3		⌈(0.6) u- litrally,=
		⌊*((moves arm in arc diagonally towards Di, holds pose...*

```
4        Di      =as you get older it goes really quick        ⌉
                 ....................................releases pose))  ⌋
5                ⌈doesn'it       ⌉
6        Roy     ⌊yeah           ⌋
7                e- i- i- i- exac'  ⌈ly.
                                   ⌊((Di turns head away, looks to middle distance...

8                (0.4)
9    →   Roy     u:::    ⌈::h und            ⌉imagine, (0.1) u::parently, (0.2) u:h u:::
10       Di              ⌊sh  ⌈ame    ⌋
                              ⌊((looks back at Roy...

11   →   Roy     (0.2) Ruby, (.) or Keith,=
12   →   Di      =m=
13   →   Roy     =u- u::me:: (0.4) ⌈fly.
     →                             ⌊((clicks fingers))
14       Di      g(h)oes e  ⌈ven  ⌉      ⌈quick(h)er   ⌉
15   →   Roy                ⌊li-  ⌋      | litrally    |=yeh, (.)
     →                                  ⌊((clicks fingers))  ⌋
16   →           eh- eh- yeh.  ⌈(even) (2 syllables)     ⌉
17       Di                    ⌊yeah 's coz they         ⌋don't do
18               any  ⌈thing
                     ⌊((Di leans in towards Roy, grinning widely...

19       Roy     eh heh heh heh heh heh heh heh heh heh heh heh °hhhehh
```

In this extract, Roy again produces a new sequence of talk with a turn-initial noun phrase, although in this extract, unlike Extract 17, the sequence is designed as a continuation of prior talk, signalled by the connective *and* ('...und...', line 9). After securing the turn, Roy produces *imagine*, a term that acts as a strong turn-holding device by directing Di to put herself in the state of contemplating some telling that is yet to come. He follows this with *apparently*, a term that suggests that the upcoming telling is not something he knows to be the case himself, but rather has been related to him by someone else. Roy then constructs a turn by fronting the noun phrase '...Ruby, (.) or Keith,...' (line 11) and subsequently producing a comment, *fly* (line 13), which is accompanied by a click of his fingers. As in Extract 17, the construction introduces referential items that are new to the talk but that arise out of immediately prior talk. Ruby and Keith, Roy's elderly and retired parents, are exemplars of the category of people who are 'older' (see Di's account at line 4). Roy produces both names with non-final intonation, signalling that the turn is incomplete at this point. The conversational action also remains incomplete, since the topic is known, but not the nature of Roy's comment on it. In line 12, Di performs a latched minimal receipt of the noun phrase, a non-floor-taking turn that is designed to signal that she has recognised who Roy is talking about, and that she is ready to receive the rest of the turn. Thus, establishment of reference becomes an interactional sequence in its own right (Auer, 1984). The

comment that follows is conveyed by a verb, *fly*.[23] The turn appears pragmatically complete at this point, since Roy has delivered the comment element of the construction. The final falling intonation that marks the verb also suggests the turn is complete. Di's response is delivered quickly (line 14), and subsequently imposes itself between the verb and an additional part of the comment, the word *literally* (line 15), accompanied by a second finger click, which Roy appends to the end of his construction. The term appears designed to intensify the strength of the comment.

Although the presence of the verb *fly* could signal that this is, in fact, an attempt at a sentential construction, with Ruby and Keith as the Theme, consideration of context suggests otherwise. Immediately prior talk has been focused on *time* (line 1), the speedy passing of the year, and how *it* (line 4) seems to pass quicker the older one is. In this context, *fly*, with its co-occurring finger click, seems to be expressing the concept of swift passage of time. This meaning is reinforced by the subsequent production of *literally*, also with an accompanying finger click. The comment is sequentially, prosodically and pragmatically linked to the foregrounded noun phrase, Roy's parents, as the particular case in point: *for Ruby and Keith, the year flies by*. Given the context, it seems unlikely that the turn means to convey that Ruby and Keith are the Theme of the verb *fly*, and are about to jet off somewhere (on holiday, for example), which might constitute a linear grammatical reading of the relationship between the words. Di's response confirms this view; she makes sense of the construction in terms of sequential, contextual, prosodic and pragmatic cues, rather than attempting to reconstitute a straightforward grammatical relationship between noun phrase and verb. She displays the results of her inferential work as an understanding check for acceptance or rejection: 'g(h)oes even quick(h)er' (line 14). Roy's acceptance: 'yeh, (.) eh- eh- yeh.' (lines 15-16), validates Di's sense making based on sequential, contextual, prosodic and pragmatic cues. Di's subsequent talk demonstrates that she is continuing with the theme raised by Roy's turn: 'yeah 's coz they don't do anything' (lines 17-18).

A third, more complex example can be seen in Extract 19, below:

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[23] Roy rarely uses verbs in conversation - he produces just three in the 23 minutes and 09 seconds of talk videoed for this study, the others being 'waitin' and 'workin' (see Appendix 7, page 136, lines 473 and 536, respectively).

Prior to this extract, Di has been explaining to Roy that she has been invited to a charity racing event at Ascot, but doesn't have to wear a hat (much to her disappointment).

```
1   →   Roy    u- ur    ⌈(0.1) ↑you know, (0.1) u- uh- u:::r ⌈racin',=
    →                   ⌊((raises arm...                    ⌊...flourish...
2   →   Di     =mm
3   →   Roy    ⌈(0.2) u:r- (0.3)   ⌈Newmarket, (0.2)      ⌈Epso:m::,
    →          ⌊...flourish...     ⌊...flourish...        ⌊...flourish...
4   →   Di     ⌈yea:h
               ⌊((Roy shapes initial vowel of 'anywhere' and does a flourish...
5   →   Roy    ⌈anywhere,                    ⌈(0.2)
    →          ⌊...flourish on 1st syllable))  ⌊((hand to vertical, finger and thumb pinched...
6   →          ⌈but            ⌉⌈(0.5)       ⌈me:,          ⌈(0.5) u-
               ⌊...holds gesture))  ⌋⌊((points to chest... ⌊...taps it twice...  ⌊...hand frozen
7   →          ⌈ur (0.2) Ascot,=
    →          ⌊...shakes head......
8       Di     =°hh   ⌈you've n⌉ever bin   ⌈'ave you::              ⌉
9   →   Roy           ⌊no::.  ⌋             ⌊no::::                  ⌊no:
                      ⌊...shakes head...    ⌊...grins, drops gesturing hand)) ⌋
10             (0.2)
11      Di     praps you can go next year dad
12      Roy    exac'ly
```

In line 1, Roy initiates a turn with the pre-beginning elements 'u- ur...' before delivering the discourse marker '...↑you know,...'. This talk, with its co-occurring initiation of gesture, indicates that a turn is upcoming, but it does not commit Roy at this point in time to producing a particular type of turn construction. After filled and unfilled pauses, he says *racing* (line 1), producing the nominal form with continuative intonation to indicate a turn-in-progress. A co-occurring flourish of the hand adds emphasis. By holding the completed gesture frozen, he signals that he intends to continue with his turn (Streeck, 1993). The referring term is new in that it has not been mentioned in prior discussion of Di's visit to Ascot, and yet it is clearly linked to this context. In line 2, Di signals that she understands what Roy will talk about by acknowledging the noun with 'mm'. Thus, as in Extract 18, joint establishment of reference occurs before Roy continues his turn. He then produces two place names: ·'...u:r- (0.3) Newmarket, (0.2) Epso:m::,' (line 3), each with an accompanying flourish of the hand. His turn-so-far is clearly formulating place rather than referring to a person, as seen in Extract 17 and Extract 18. Given the context invoked by his first referring expression *racing*, it appears to be the racecourses at these two places that Roy wishes to discuss. Both racecourse names are produced with continuative intonation, and thus resemble the first two elements of a three part list. In this way, they serve to indicate that a third element will follow. Once again, Di provides a minimal receipt of

the nouns to show Roy that she has understood (see line 4), demonstrating an awareness that Roy's turn is ongoing. After Di's receipt, Roy adds a third item: 'anywhere,...' (line 5), repeating the hand gesture that he has produced with each prior word in the list. This item functions as a generalised list completer (Jefferson, 1990), locating the first two items in the list as members of a class. Thus, Roy formulates a reference to the whole class of items 'racecourses'. The reference includes the listed items but is not limited to them. The continuative intonation of the generalised list completer projects yet more talk to follow. Roy's turn-so-far conveys the sense that these particular racecourses, as well as many others, are relevant to the point that he is making, but as yet it is unclear what this point might be. Thus, the turn does not seem to be pragmatically complete at this juncture.

Roy then extends the turn further by delivering another noun and comment sequence, linked to the first by the contrastive conjunction *but*. He produces '...but (0.5) me:, (0.5) u- ur (0.2) Ascot,...no::.' (lines 6, 7 and 9). The construction consists of a fronted reference to self, via the pronoun *me*, followed by reference to the racecourse that was the focus of discussion prior to Roy's current talk: *Ascot*. Roy's comment, *no*, is designed to convey a negative event, something *not* done, and in the context of the prior reference to self, something *he* has not done. Given the context, Roy is clearly telling Di that he has not been to the races at Ascot. Thus, both of the fronted referring expressions, *me* and *Ascot*, become arguments of the comment that follows.

Di's response at line 8, '°hh you've never bin 'ave you::', demonstrates that she has no difficulty in understanding the meaning of what is a complex series of linked, but fundamentally agrammatic elements. In fact, she demonstrates that she is able to understand Roy's turn before it is even finished, with the result that his final comment *no* (line 9) is produced in overlap with her response. She is able to respond early because Roy's shake of the head (see gloss of line 7) prefigures the semantic meaning subsequently conveyed by his comment *no*. Di's use of the tag, *have you*, suggests that she is marking her talk as conveying something they both know to be the case (see Schegloff, 1996a: fn 36); it is not news to her. Her comment at line 11, 'praps you can go next year dad', picks up on and responds to the meaning of Roy's talk.

In summary, a recurring phenomenon emerges from Roy's talk whereby certain turns are constructed with a noun (or noun phrase) or series of nouns (or noun phrases) in initial position, followed by a comment. The turn-initial noun (phrase) becomes the argument of the subsequent comment. If considered in the context of a sentence grammar, the resulting turn constructions are agrammatic – two of the three examples

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discussed have no verb, and multiple nouns are produced as a list prior to the comment. Thus, there is no word-order marking of core participants' roles in an argument structure. It is this fact that marks the structure as different from examples of non-aphasic topic-comment structure. However, the elements of the turn are successfully packaged as a single construction that conveys a clear meaning. This is achieved via sequential, prosodic and pragmatic means. In the extracts examined here, the construction is used by Roy to initiate a new sequence of talk that introduces a new referential item and then makes some newsworthy comment about it. Although the item has not been discussed in prior talk, it is clearly related to it. The sequence is designed to do the action of presenting a fact for discussion. Di responds by taking up and talking to the content of Roy's talk.

7.2.2 turn-initial adjective: the actions of assessing and reasoning

Roy constructs many of his turns at talk with an adjective in initial position. Some convey a complete action in their own right, that of assessment. Examples are *proud* (see Appendix 7, page 335, lines 237 and 303), *chuffed* (line 239) and *nice* (line 409). Other initial assessment terms, however, form part of an extended turn, in which they are followed by an account that conveys a reason for the assessment. The reason is linked to the prior assessment by the connective *because*. This extended turn functions to address prior talk by delivering an opinion on it, followed by an explanation of that opinion. Examples will be presented in Extract 20[24] and Extract 21, below.

Extract 20 Roy/Di June00#7.*homesick*

Di has just been telling Roy how her sister rang from Australia at the weekend for a chat.

1		Di	I think she's homesick
2		Roy	°hh really
3		Di	mm
4			(0.3)
5	→	Roy	uh- ama:zing:,
6		Di	never bloody 'appy though is she that one=
7	→	Roy	=°nah no,° bŭt, (0.2) umai- 'mazin', (.) becuz,
8	→		(1.0) uh- (0.2) two years or three years.
9	→		⌈you know,
10		Di	⌊yea::h
11	→	Roy	but, uh (0.2) but, I s'pose diff'rent,=°hh
12	.	Di	s ⌈he-
13	→	Roy	⌊bu ⌈t,-
14		Di	⌊>well she's-< (0.2) she's left

---

[24] An earlier analysis of this extract was published in Beeke (2003).

| 15 | | everythink isn't she really |
| 16 | Roy | (0.2) °yea:h° (0.2) °yea:h° |

In this extract, after the pre-beginning element *uh*, Roy begins a new sequence of talk at line 5 with a turn-initial assessment term: '...ama:zing:,', which is interrupted by an incoming from Di: 'never bloody 'appy though is she that one' (line 6). Roy regains the floor by latching a quiet acknowledgement with continuative intonation to the end of Di's comment: '°nah no,°' (line 7). The connective *but* that follows, also with continuative intonation, signals that he will resume his prior turn, since in sequential position after an interruption it functions as a 'skipback' over the intervening talk of another (Mazeland and Huiskes, 2001). Roy then repeats the assessment term, again with continuative intonation, and follows it with an account linked to prior talk by the connective *because*: '...umai- 'mazin', (.) becuz, (1.0) uh- (0.2) two years or three years.' (lines 7 and 8). Roy is clearly assessing the news that Di has presented him with; the fact that Anne is homesick. There is no suggestion that reference to the thing that is being assessed is noticeably absent from Roy's turn-in-progress. In terms of a positionally sensitive grammar (Schegloff, 1996a), a one word assessment appears to be the appropriate form for this position. The account that follows the connective conveys temporal information, and consists of two noun phrases delivered as alternatives to each other in an *X or Y* structure: *two years or three years*. It is an agrammatic construction; there is no verb and it is not clear what type of argument the temporal elements constitute. Final falling intonation on *three years* appears to signal the end of the turn. The connective *because* clearly identifies the adjective and the account as an assessment and a subsequent reason for the assessment. Di acknowledges Roy's comment at line 10 with 'yea::h'.

As Di does this, Roy delivers the tag '...you know,' with continuative intonation, and thus signals that he will further extend his turn. He does so by using the contrastive connector *but*, producing 'but, uh (0.2) but, I s'pose diff'rent,=°hh' (line 11). The unit *I suppose* serves to introduce another assessment term, *different*. The adjective is produced with continuative intonation and followed by an audible inbreath, suggesting that there is yet more to come. However, as Roy inhales, Di starts up with 'she-' (line 12). A battle for the floor ensues, with Roy attempting to continue with *but*, but it is Di who succeeds in taking a full turn (see lines 14-15). Her response is clearly built on prior talk, and thus she displays no difficulty with the interpretation of Roy's extended turn.

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It is interesting to note that *I suppose* gives the impression that a sentential construction is under way, and that Roy is manipulating grammar (see Beeke, 2003). However, in English, some 'subject + mental verb' combinations, such as *I think, you know* and *I mean* have become grammaticised as discourse particles by virtue of the fact that they form such regular and frequent combinations or 'fixed units' (Helasvuo, 2001). *I suppose* seems to be one of these units. According to Helasvuo, fixed units function to express a person's stance on some issue. This does indeed seem to be the case here – Roy's turn appears to convey a possible mitigating account for his daughter's homesickness, and thus a more empathic attitude, which stands in contrast to his previous strong reaction of amazement (Beeke, 2003).

Roy's extended talk is packaged together as a single turn by the sequential adjacency of the elements, and by prosodic means, but also in part as a result of the grammatical connectives *because, or* and *but*. These terms give an impression of grammar, without implicating verbs or argument structure. The grammatical incompleteness that they signal projects an activity in progress, which can be beneficial for turn-holding. The fixed unit, *I suppose*, also lends an air of grammaticality by projecting a 'pre-packaged' argument structure onto the talk that follows (Beeke, 2003). It is worthy of note that for this particular turn, pragmatic completion is *not* a feature that serves to indicate where the turn ends, as it does for those turns that begin with a noun (see section 7.2.1 above). This is because assessment could conceivably be a complete conversational action in its own right, and thus there is a possible completion point after the adjective *amazing*. Roy attempts to block this hearing of the turn by delivering the adjective with continuative intonation. Although he succeeds in continuing his *second* attempt at the turn past this possible completion point (see line 7), Di interrupts at precisely this place during his first attempt (see lines 5 and 6). In connection with this observation, it is interesting to note that although Roy's first production of the adjective has continuative intonation, it also has lengthening of the final phoneme of both the second and final syllables of the word. Prosodic lengthening of final syllables is commonly associated with the end of a turn (Ford and Thompson, 1996). No such lengthening occurs during the repeat of the adjective in line 7. It seems plausible that the conflicting prosodic cues concerning completion which accompany Roy's first production of the adjective may serve to weaken his attempt to project continuation. This demonstrates the potential vulnerability to interruption of a turn of more than one word where the first constitutes a possible complete action in its own right.

A second example can be seen in Extract 21, below:

Extract 21 Roy/Di June00additional#3.*interesting actually*

Di and Roy have been discussing her job as a nursery nurse. Just prior to this extract, Di states her plan to train as an assessor of student nursery nurses, to which Roy provides minimal acknowledgment before the talk lapses.

```
1                   (0.2)
2    →  Roy       ⌈uh- u::::: e- int'restin' acshully, (0.3) uh-
                  ⌊((Di picks up glass and takes a drink from it, Roy raises hand...
3    →            bu- bi- bicuz-    ⌈(2.4)
                                    ⌊...turn holding hand movements...
4    →            ⌈er now, (2.1)                              ⌈me:,
                  ⌊...holds out hand towards Di, makes repetitive mmts... ⌊((points to self, holds pose..
5    →  Di        m
6    →  Roy       ⌈(0.3) I:, (0.9) think no,   ⌉⌈(0.5)           ⌉er=er-
                  ⌊((shakes head...............))  ⌋⌊((taps chest once)) ⌋
7    →            ⌈(0.7)                        ⌈u-=s/kəb/ecial.  ⌉(0.3) honestly.
                  ⌊((raises index finger...    ⌊...wags finger......)) ⌋
8    →  Di        what, working with children.
9    →  Roy       yeah, definitely.
10      Di        yea:h  ⌈not ev        ⌉ryone can do it
11      Roy              ⌊>°definitely°< ⌋
12      n         ⌈o:::   ⌉
13      Di        ⌊can    ⌋'ey
14                (0.4)
15      Roy       u- u- i- i::: exacl'y=    ⌈=yeh
16      Di                                  ⌊=nah
```

In line 2, after pre-beginning elements ('uh- u::::: e'), Roy begins a new sequence with a turn-initial adjective: '...int'restin' acshully,...'. The element *actually* is delivered with continuative intonation, projecting more talk to come. By using *actually*, which, according to Schegloff (1996a) serves to register a coincidental link with prior talk, Roy gives the impression that he is producing on-topic talk that is relevant to the prior discussion of Di's job. After a short halt in progressivity, he produces an account that is linked to the assessment by the connective *because*: '...bicuz- (2.4) er now, (2.1) me:,...(0.3) I:, (0.9) think no,...' (lines 3, 4 and 6). The account is built as a noun-initial construction, with a fronted reference to self, *me*, followed by a comment *I think no*. Di receipts *me* with a minimal 'm' (line 5) before Roy produces the comment. Thus, joint establishment of reference becomes a sequence in its own right, as noted in section 7.2.1. By virtue of a fixed unit, *I think*, Roy's comment achieves an air of grammaticality without the need for him to manipulate grammar. The fronted pronoun *me* is co-referential with the pronoun *I* in the comment, and in this way the construction resembles left dislocation. However, according to Keenan and Schieffelin (1983), it is not common to use left dislocation to foreground reference to *speaker* because it is a

referential item with near constant presence in conversations (people usually talk about themselves), and thus does not require highlighting in the same way that a new item might. It seems that Roy chooses to foreground himself as the referential item here because his turn is designed not only to comment on *his* ability to do something (*me I think no*) but also to highlight a *contrast* between himself and Di (as evidenced by stress on *me*). Interestingly, the construction *me Ascot no* (Extract 19, page 165, lines 6, 7 and 9), which is built in much the same way, is also designed to convey a contrast between Roy's own experiences and those of Di.

The comment at line 6 has continuative intonation, and subsequent fillers also signal that Roy intends to extend the turn further. He does so by producing another adjective: 'er=er- (0.7) u-=s/k∂b/ecial.' (line 7). This time the adjective has final falling intonation, indicating that the assessment forms a complete action in its own right. After a 0.3 second pause, Roy appends the element *honestly*, also with final falling intonation (line 7). This element serves to intensify the strength of the assessment.

In response to Roy's extended turn, Di offers a candidate understanding: 'what, working with children.' (line 8). This signals that she has had to do some inferential work in order to pinpoint the *focus* of Roy's extended turn; that is, *what* Roy doesn't think he could do. Di clearly makes use of prior sequential context, assuming that they are still discussing things related to her job, in the absence of any indication in Roy's talk that he has initiated a new topic. Roy's response is both a confirmation of Di's candidate understanding and a redoing of his emphatic stance: 'yeah, definitely' (line 9). Di's subsequent talk at lines 10 and 13 acknowledges and builds on Roy's comments: 'yea:h not evryone can do it...can'ey'. They continue to agree with each other over the next few turns (see lines 11 to 16).

As with Extract 20, the elements in Roy's talk are packaged into one extended turn via a mixture of sequential adjacency, prosody, grammatical connectives and the fixed unit *I think*. Once again, the connective and the fixed unit lend an air of grammaticality to the turn without implicating verbs and their arguments. Both project grammatical incompleteness, and thus hold the turn open as an activity in progress.

In summary, a recurring phenomenon emerges from Roy's talk whereby certain turns are constructed with an adjective fronted to preliminary position in the turn, followed by an account. The fronted adjective performs the conversational action of assessment. The account conveys a reason for the assessment, and is linked to it by the connective *because*. If considered in the context of a sentence grammar, the resulting turn constructions are agrammatic. The adjective is produced in isolation, rather than in

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the common (non-aphasic) grammatical format for assessment: *it is ADJ* (Goodwin and Goodwin, 1992a). The account is also agrammatic because it does not contain a verb, unless it is part of a fixed unit such as *I suppose* (Extract 20) or *I think* (Extract 21). The account may be constructed with a fronted noun, a turn construction format discussed in section 7.2.1 above. Despite the agrammatic nature of the talk, the elements of the turn are successfully packaged into a single construction that conveys a clear meaning. Links between the elements are achieved via sequential and prosodic means, but also via the use of grammatical connectives and fixed units. These serve to lend an air of grammaticality to Roy's talk without the need to manipulate grammar, and they act as turn-holding devices by projecting the grammatical incompleteness of the turn so far. In the extracts examined here, the adjective-initial construction is used by Roy to address prior talk by delivering an opinion on it, followed by an explanation of that opinion.

7.2.3 co-occurring talk and mime: recounting an event

This section will investigate turns at talk that are constructed using a combination of talk and mime. Such turns function to recount an event. In such constructions, the events are conveyed via mime, (there are no verbs) whilst referring expressions, if present, are introduced verbally. Examples of turns constructed in this way are presented in Extract 22, Extract 23 and Extract 24, below. In Extract 22, the event is a prior experience that both Roy and Di have shared and, as a result, Di is a 'knowing' recipient of the telling (Goodwin, 1987). In Extract 23 and Extract 24, Di is an 'unknowing' recipient; Roy recounts events that are new to her.

Extract 22 Roy/Di June00#7.*Linda and [mime]*

Roy and Di have been discussing Roy's prediction that Di's boyfriend would organise a surprise party for her 21st birthday. The beginning of the extract has been simplified for clarity.

1		Di	you said e was gonna do somink din't you
			.
			.
			.
2		Di	you were right!
3	→	Roy	uh- i- i- >exac'ly< °hh an'=course=°hh eh- eh- eh- er
4	→		⌈Linda
	→		⌊*((points to a spot in front of him…*
5	→		⌈ an' ⌉
	→		⌊*((…points to another spot, shifts gaze from Di to his finger))* ⌋
6	→		⌈(0.2)
	→		⌊*((mimes excitement, gazing to middle distance))*

```
7   →   Di    ⌈we're all              ⌉    ⌈goin' oooooh!            ⌉
    →         ⌊((Roy continues mime))  ⌋    |  ((gaze returns to Di))
8   →   Roy                                 ⌊ra- uhah hah hah hah     ⌋
9   →         hah hah hah hah hah hah °hhhh hheh
10  →         °hh y ⌈eah
11      Di          ⌊we're
12            just too nosy us lot=(aren't we)
```

At line 3, Roy receipts Di's 'you were right!', and then initiates a new sequence – an account of a past event. Di is an informed recipient of his telling because she was present at the time of the event. Roy begins the turn with a connective latched to a discourse marker: '...an'=course=°hh...'. After a series of fillers, he produces a noun and a connective: '...Linda an'...' (lines 4 and 5), whilst pointing firstly to one spot in front of him, and then to a second (see gloss of lines 4 and 5). The first point is timed to occur as Roy is saying *Linda*, and the second as he says *and*. Thus, he identifies one of the referential items verbally with an accompanying point, but the second simply via a point coinciding with the connective. The verbal and non-verbal referring expressions are followed by a mime conveying excitement – Roy grins and bobs his head about whilst holding his eyes wide (line 5). He signals that he is entering a mime depicting the event involving the referential items by disengaging from the here-and-now interaction, firstly by looking at his pointing finger, and then by shifting his gaze to the middle distance as he engages in the mime itself.

After 0.2 seconds, Di offers a verbal 'translation' of Roy's turn: 'we're all goin' oooooh!' (line 7). The meaning conveyed by Di's talk demonstrates that she is interpreting the mime of excitement and the verbal and non-verbal referring expressions as mutually contextualising phenomena (Goodwin and Goodwin, 1992b). She uses a plural pronoun to show that she has interpreted the talk and points at line 4 as implicating more than one person. Her turn design demonstrates that she understands Roy's talk to be primarily conveying the *event* participated in by the people he has identified. Thus, she offers *going oooooh* rather than glossing his mime with an assessment term, since this would put the focus on the emotional *state* of the people, not on what they were *doing* (compare *we were all excited*). It is interesting to note that Di chooses to convey the event with the help of a response cry (Goffman, 1981; cited in Goodwin, 1996), rather than in purely verbal terms. This may constitute an act of affiliation on her part, whereby she adjusts her own talk to become partly non-verbal in

order to validate Roy's use of a combination of talk and mime by minimising the difference between them.[25]

Roy's response is a lengthy period of laughter, which begins in overlap with Di's talk. After several seconds, he explicitly receipts Di's talk with '...yeah...' (line 10). At the same time, Di starts up with 'we're just too nosy us lot=(aren't we)' (lines 11 and 12). The design of her turn demonstrates that she is continuing with the topic raised by Roy's talk and mime turn construction.

A second example is shown in Extract 23 below, when Roy recounts an event at which Di was not present. Thus, she is an unknowing recipient of the telling:

Extract 23 Roy/Di June00#7.*sort of now oh no [mime]*

Roy and Di have been discussing the shop where Roy purchased his pine furniture, including whether the prices are reasonable, and whether Di and Timmy might find a wardrobe there to match their current bedroom furniture.

```
1           Di      = >(we'll have)< t'go in there 'n' 'ave a look
2    →      Roy     ⌈(0.4)              ⌉yeah, and,      ⌈(0.2)
                    ⌊((jabbing point))  ⌋                ⌊((jabbing point))
3    →              ⌈eh- u- sort of,
     →              ⌊((moves hand as if grabbing an object, orients body and gaze to the mime))
4    →              ⌈now,                                        ⌉
     →              ⌊((mimes opening a door and looking in))     ⌋
5    →              ⌈(0.2) o:h no.
     →              ⌊((grimaces, looking into 'shop'))
6    →              ⌈(0.6)
     →              ⌊((releases gesture and holds up hand with palm facing Di))
7    →              ⌈uh- uh- but,-
     →              ⌊((raises arm to head height, elbow bent, hand cupped fingers curving downwards,
     →              begins to snake arm out in front of his body...
8    →      Di      ⌈it goes back
     →              ⌊...Roy continues to move arm in snaking fashion...
9    →      Roy     YEah, ⌈i- i-              ⌉exac'ly. yeah. yeah.
     →                    ...gesture ends))   |
10          Di            ⌊yea::h             ⌋
11                  (0.5)
```

In line 2, Roy acknowledges Di's prior talk and then initiates a new sequence by producing the connective *and*, which projects further on-topic talk. His pointing gestures during the turn-initial pause and the gap after the connective function as turn-holding devices. What unfolds is an elaborate sequence of mime, gesture and talk, launched at line 3 with 'eh- u- sort of,...' as Roy mimes grasping an imagined object in front of him. He orients his body and gaze away from Di as he engages in the mime and

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[25] See Wilkinson et al (2003: fn 16), and Heeschen and Schegloff (1999: p. 396) for a similar line of argument.

talk construction, conveying the impression that he has transported himself out of the here-and-now conversation and into a story telling performance. As he continues the telling with: '...now, (0.2)...' (line 4), it becomes clear that the object is a door handle, and that he is miming opening the door of the shop that they have been talking about. Both *sort of* and *now* serve as verbal pointers to the relevance of the co-occurring mime, and thus reinforce that Roy is currently acting out a scene, and that Di should look to the mime to create the context for interpreting his meaning, rather than to prior sequential context or to their immediate physical environment. In addition, *sort of* and *now* act as turn holding devices by projecting more talk. Both are produced with continuative intonation to reinforce their turn holding qualities. Direct reported speech follows: '...o:h no.' (line 5). This is delivered with final falling intonation and a disappointed tone, and accompanied by a grimace. The verbal and non-verbal elements combine to indicate a negative opinion of the shop. As Roy finishes the reported speech, he renews eye contact with Di, and maintains this throughout the 0.6 second pause that follows. During the pause, Roy ends his prior gesture and proceeds to hold his still-raised hand with the palm facing towards Di (see gloss of line 6). The dismantling of the prior gesture seems to suggest that the preceding part of the story is at an end, and the new pose that he is ready to continue with something else (Streeck, 1993). Through the combination of talk and mime produced so far, Roy conveys a series of events that neither the talk nor the mime in isolation could achieve. His turn may be glossed as meaning something akin to *and you go in the shop and think 'oh no'*.

Next he delivers the contrastive connector *but*, which, in the context of the prior negative event expressed at line 5, suggests a positive event is upcoming. It is accompanied by an elaborate gesture – he raises his arm to head height, elbow bent and hand cupped with fingers pointing downwards, and then begins to extend the arm away from his body in a snaking movement towards the virtual interior of the shop (see gloss of line 7). As he produces the connective, he withdraws his gaze from Di and cuts off the word, signalling that a word search is in progress. This is noticeably a point at which he intends to continue the turn alone.

However, during the word search, Di offers a gloss of his turn-in-progress: 'it goes back' (line 8). At the point at which she does this, Roy has not indicated a need for assistance; he is still gazing into the middle distance. The meaning conveyed by Di's gloss is based principally on an interpretation of Roy's gesture at line 7, but also on the projection of contrast embodied by *but* and the initial mimed scene of not liking the view when looking into the shop. Thus, Di treats Roy's verbal and non-verbal

behaviours as mutually contextualising phenomena (Goodwin and Goodwin, 1992b). Although Di delivers her completion as a prosodic statement, it is received by Roy as a request for confirmation, as his 'YEah, i- i- exac'ly. yeah. yeah.' at line 9 demonstrates. This is because Di is an unknowing recipient of the telling; she is reporting a so-called 'B-event' (Labov and Fanshel, 1977), known to Roy (A) but not known to her (B). A B-event statement is always received by person A as a request for confirmation (Heeschen and Schegloff, 1999). Roy's use of the word *exactly* conveys a heightened stance towards Di's gloss. It seems designed to convey something akin to *that's exactly what I meant*.[26] Di is able to offer a reading of the event that is acceptable to Roy because of the way he designs his turn to project considerable information about what is to come. He achieves this via the skilful use of non-verbal and verbal resources.

A final example can be seen in Extract 24, below:

Extract 24 Roy/Di June00#7.*laptop [mime]*

In this extract Di initiates a new topic of talk at line 1. The beginning of the extract has been simplified for clarity.

1		Di	but um I said to Timmy about gettin' a computer

.

.

.

2		Di	yeah I wannue em (0.3) tuh- I'd like to get one
3	→	Roy	(0.4) you know,- (.) ⌈um,
4		Di	⌊just a PC one (.) °y'know°
5	→	Roy	(0.4) yea:h, but u:m ⌈>I'll tell you< wha:t, (0.4)
			⌊*((pointing gesture))*
6	→		e- e- ⌈now,:
	→		⌈ *((mimes grasping and raising the lid of an object...*
7		Di	⌊you can pick them up for about five
8			⌈hundred can' ⌈you
	→		⌊*((Roy holds gesture frozen...* ⌊*((wiggles index finger twice...*
9	→	Roy	y- ⌉⌈yes, yeah, but, ⌉
	→		...)) ⌋⌊ *((finger remains extended, looks down)) ⌋*
10	→		⌈(0.6) now, (0.4) ⌉
	→		⌊*((extends arm to his left, fingers splayed, moves hand ↑from table to head*
	→		*height then → to right hand side of body, looking at hand all the time))⌋*
11	→		⌈er- (0.6) lap(k)top,=
	→		⌊*((looks at Di, mimes grasping and opening a laptop, repeat of mime line 6))*
12	→	Di	=mm
13	→	Roy	⌈(0.4) but,
	→		⌊*((looks at hand, ?mimes closing laptop...*
14	→		⌈(1.2) literally, ⌉
	→		⌊*...picking it up, testing its weight... ⌋*

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[26] See section 7.3 on page 136 for a detailed discussion of Roy's use of this word. See also Wilkinson et al (2003: fn. 19), for discussion of a fluent aphasic speaker's use of 'that's what I mean(t)'.

```
15  →            ⌈now, (1.4)        ⌉
    →            ⌊((?traces the shape of the open laptop from top of screen down, round angle
    →            and over keyboard))  ⌋
16  →            ⌈and,                                        ⌉
    →            ⌊((arm and hand extended as if gripping the top of the screen))    ⌋
17  →            ⌈wwsshhhw                              ⌉
    →            ⌊((mimes swiftly shutting up the computer))  ⌋
18  →            ⌈(0.8)                                              ⌉   gesture partially
    →            ⌊((mimes picking it up and puts arm down by side, looks at Di as finishes))⌋   obscured by table top
19  →   Di       or ones you can put in your pocket=
20  →   Roy      =y  ⌈eah!
21  →   Di          ⌊heh  ⌈heh
22  →   Roy               ⌊oh re- ↓YEAH.
23  →   Di       really
24  →   Roy      yea:h, e- exac'ly.
25          (0.3)
26      Roy      and, b- brilliant.
27      Di       mm
28      Roy      yeah.
29          (0.4)
30      Di       yeah no I do
```

In line 1, Di raises the topic of computers for the first time, specifically her wish to buy one. In line 3, after a 0.4 second pause, Roy initiates a new sequence of talk with the discourse marker *you know*, a fixed unit that lends his talk an air of grammaticality and clearly projects that a telling is under way. However, Di takes the opportunity to come into his turn space with an extension to her prior turn: 'just a PC one (.) °y'know°' (line 4). After a 0.4 second pause, Roy acknowledges Di's talk before resuming his turn with the skipback connective *but* (Mazeland and Huiskes, 2001), produced with continuing intonation. He continues with the story initiator: '...>I'll tell you< wha:t,...' (line 5). This phrase constitutes a presequence (Schegloff, 1990). It acts as a strong turn holding device by projecting that a telling sequence will follow. Since a presequence makes some response relevant from the recipient, we might reasonably expect a 'go-ahead' (Schegloff, 1990) from Di, but she remains silent. After a 0.4 second pause, Roy produces '...e- e- now,:...' (line 6) whilst miming grasping and raising the lid of an object. As in Extract 23, *now* acts as a turn holding device by projecting more to come, as in 'now listen', but here its use also seems designed to exploit the other meaning, as in 'here and now', in order to convey that Roy will talk about a *current* situation.

Despite the clear verbal and non-verbal signals that an extended turn is underway, Di comes into Roy's turn space for a second time, in overlap with the word *now*, to say: 'you can pick them up for about five hundred can't you' (lines 7 to 8). During Di's interjection, Roy holds his hand frozen in the position reached at the end of his mime in line 6, to indicate that he is attentive to her talk whilst not yet finished with his own

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(Streeck, 1993). As Di's turn ends, Roy extends the index finger of his static hand and wiggles it around, securing the next turn non-verbally in 'overlap' with Di's talk. Whilst holding his finger extended, he acknowledges Di's comment. After this he breaks eye contact and resumes his telling for the second time, again deploying *but* as a skipback term (line 9). During the 0.6 second pause that follows, Roy begins a new gesture – he traces the left side and the top of a square, in the air in front of his body (see gloss of line 10). The gesture continues during the word *now* and for 0.4 seconds after it. It is not clear what this gesture is designed to convey. After this, Roy makes eye contact with Di and produces a verbal referring eepression, *laptop* (line 11), whilst miming an event that could be opening a laptop (see gloss of line 11). This mime is visibly a repeat of the mime at line 6. It is interesting to note that Di provides a minimal receipt (line 12) in sequential position after the noun, a practice that has been noted in section 7.2.1 above. The fact that she does not take a full turn at this juncture demonstrates that she is treating Roy's telling as incomplete.

Subsequently, Roy produces a lengthy mime sequence, with some co-occurring talk. Initially, he mimes an event that might be *shutting* a laptop (see gloss of line 13), producing the contrasting connective *but* 0.4 seconds into the mime. It seems that the *but* may serve to contrast the co-occurring mime with the immediately prior one, which resembled *opening* a laptop (see gloss of line 11). Next, he mimes picking the laptop up and testing its weight (see gloss of line 14), saying *literally* after 1.2 seconds. The verbal element is produced with continuative intonation to signal that the turn is not yet at an end. This part of the mime sequence is followed by the turn holding element *now* (line 15), and a 1.4 second pause. The accompanying mime is not clear, but he may be indicating the shape of the open laptop from screen to keyboard (see gloss of line 15). Next, Roy produces the connective *and* (line 16) whilst extending his arm and grasping the top of the virtual laptop screen. The connective suggests that he may have moved on to a new sequence of talk and mime, and that the sequence focused on weight of the laptop is complete. Subsequently, he mimes swiftly *shutting* the laptop (see gloss of line 17), whilst simultaneously making a symbolic noise to illustrate the movement, transcribed as 'wwsshhhw' (line 17). Finally, during a 0.8 second pause, he mimes the event of *picking up* the laptop and locating it down by the left hand side of his body (see gloss of line 18). It is not possible to see precisely what he does with his hand because the table obscures the final part of the mime.

This is a complex mime sequence. Some discrete mimes within the sequence clearly convey an event relating to the noun *laptop*, such as opening or shutting, or a

state, such as weight. Other mimes are much more ambiguous in terms of meaning. Despite these issues, the general impression is that Roy is suggesting to Di why a laptop might be a good thing to buy, given that she has raised the topic of wanting to purchase a computer. The events he conveys to her are different from those of prior extracts; here there is no sense in which Roy is relating past experience, rather he seems to be talking in hypothetical terms about what one could do, if one had a laptop.

In line 19, Di proffers a gloss of Roy's final mime, his relocation of the virtual laptop to a position by his side, by producing 'or ones you can put in your pocket'. It is not possible to discern whether Roy actually mimes putting the laptop into his pocket or not, as this part of the mime is obscured from the view of the camera by the table, and it seems likely that Di can't see either, given that she is seated on the opposite side to his gesturing hand. Confronted by this problem, she seems to have based her guess on the general location of his hand, and on the context of prior miming, which seems to make a statement about weight, which might possibly implicate size. Di's deployment of the contrastive connector *or* may indicate that she is having trouble with the concept that laptops can be pocket-sized; it suggests that she may be treating the referring expressions *laptop* and *ones you can put in your pocket* as alternatives. She seems to be using her world knowledge to try to understand Roy's telling. As in Extract 23, Di offers her statement of the event conveyed by Roy's mime as a assertion, but Roy treats it as a request for confirmation. Again, this is because Di is stating a B-event (Labov and Fanshel, 1977); she is an unknowing recipient of the telling.

Roy receipts Di's gloss with enthusiasm, latching his receipt token 'yeah!' (line 20) to her talk, and producing it with marked rise-fall pitch. However, in contrast with Extract 23, Roy does not make use of his usual term for indicating *that's what I meant to say* - there is no *exactly*. Thus, it remains unclear whether or not Roy really meant to convey that some laptops are pocket-sized. Di responds to Roy's receipt with brief laughter (line 21). Roy's subsequent upgraded talk reconfirms the assertion with: 'oh re- ↓YEAH' (line 22). It is only when Di receipts the information as newsworthy with 'really' (line 23), that Roy responds with his usual confirmatory word: 'yea:h, e-exac'ly.' (line 24). He subsequently adds the assessment 'and, b- brilliant.' (line 26) to which Di responds with a minimal acknowledgement (line 27). After a passing turn from Roy and a lapse of 0.4 seconds, Di provides a sequence closing summary, 'yeah no I do' (line 30) that links to her comment in line 2. Thus, in this extract, unlike Extract 22 and Extract 23, the ideas expressed by Roy's talk and mime construction are not

taken up and continued in subsequent talk by Di. This may be related to the noted ambiguity of much of Roy's turn.

In summary, a recurring phenomenon emerges from Roy's talk whereby he constructs a turn with a combination of talk and co-occurring mime. The talk in such turns mostly consists of connectives and turn-holding elements such as *now* and *sort of*, although on occasion a noun or element of reported speech may be produced. It is the mime sequences that convey the main part of Roy's intended meaning in these constructions. On the whole, this is focused on *events*, although there is one example of a mime conveying a comment about *state* (weight, see Extract 24). Roy does not attempt to convey any of the events or states in these constructions using verbal means – there are no verbs. When Di glosses a talk and mime turn, she produces a sentential structure with a verb that describes an event. This shows that she interprets the function of such a construction to be the expression of an event. This function contrasts with that of novel constructions discussed in sections 7.2.1 and 7.2.2, where the focus is on commenting and giving an opinion, respectively. It seems that when Roy wishes to convey an event, either a past real event that he was involved in or a hypothetical one, he uses a combination of talk and mime. The mime, therefore, may represent an adaptation which allows him to convey events in the absence of verbs.

7.3   DI'S TALK AS A RESOURCE FOR TURN CONSTRUCTION

7.3.1   the collaborative turn construction sequence[27]

This method of turn construction can be characterised in the following way: Roy begins a turn that alludes to a certain meaning, but is hearably incomplete. This is followed by a turn in which Di articulates a version of what he 'means to say' (Heeschen and Schegloff, 1999: p. 401). In third turn position, Roy confirms the proffered candidate understanding as what he meant to say. A key feature of the sequence is the negotiated entry of Di into Roy's turn space at a point where prior talk projects clear grammatical and pragmatic information about what it will take to finish the turn. Upon entry to the turn, Di helps to articulate what Roy means to say, rather than beginning a next turn devoted to a project of her own. This sequence will be explored in Extract 25 and Extract 26, below.

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[27] After Lerner (1996; 2004). See Chapter 3, section 3.3.3, page 43.

Prior to this extract, Di has been explaining to Roy which relatives of Timmy's will be attending her 21ˢᵗ birthday party.

1		Di	Timmy's mum and dad aren't goin'
2			(0.5)
3	→	Roy	⌈oh really?
			∟*((shakes head))*
4			(0.1)
5	→	Roy	⌈°no°?
6		Di	│ no cos em they're-
			∟*((turns head away from Roy, looking out of window))*
7			⌈they're em
			│ *((gazes back at Roy, but head still turned away))*
8	→	Roy	∟oh=u-
9	→	Di	⌈they've-⌉
	→		│ *((gazing at Roy, but head still turned away))*
10	→	Roy	│ eh ⌋eh- (0.1) eh- ⌈be- bi- becuz, eh-
	→		∟*((holds out open hand))* ∟*((Di turns head back towards Roy))*
11	→		⌈(0.8)
	→		∟*((Roy looks intently at Di, his head, extended hand and body motionless))*
12	→	Di	you 'aven't ⌈met them
			∟*((Di shakes head))*
13	→		<u>ei</u> ⌈ther 'ave you ⌉
14	→	Roy	│ NO e- e- ⌋
			∟*((releases hand, leans forward))*
15	→		ex<u>ac</u>tly ⌈yea::h ⌉
			∟*((settles back in seat))* ⌋
16			(0.2)
17		Roy	⌈°yea:h°
18	→	Di	∟yeah no they're um (1.0) tuh they're doin' Robot Wars...

In line 1, Di informs Roy that her boyfriend's parents will not be attending the party. This is news to Roy, as the newsmark: 'oh really?' (line 3) demonstrates. It is produced with marked questioning intonation, and is clearly designed to elicit further explanation from Di. After a 0.1 second pause, Roy offers a second newsmark, '°no?°' (line 5). The intonation is again markedly questioning in tone. At the same time, Di begins an account of the reason why the parents will not be there: 'no cos em they're-' (line 6). She is not looking at Roy as she begins the account, but rather out of the window to her left. As a result of the overlapping talk, Di hesitates and cuts off her turn, but she continues by recycling 'they're em' (line 7). Simultaneously, Roy starts up, producing a change of state token followed immediately by a cut-off filler 'oh=u-' (line 8). This causes Di to return her gaze to Roy, although she does so without moving her head. The intonation of this *oh*, a marked fall from high to mid pitch, suggests both that Roy is disappointed by Di's news, and that there is more talk to come. The level of emotion conveyed strengthens the impression that he has more to say. Roy's use of *oh* here is

strategic; he wishes to say more but to do so he has to secure the conversational floor from Di, who is mid-turn. *Oh* is a useful element in this situation because it often causes a recipient to withhold further talk as a result of its strong association with additional talk by the *oh*-producer (Heritage, 1984b). Di makes one final attempt to continue her account with 'they've-' (line 9), but swiftly abandons it in the face of fillers from Roy, accompanied by a turn-holding gesture (line 10). Although Di is gazing at him, she still has not turned her head to face him, which may indicate a continued orientation to speakership. Given the trouble encountered by Roy in securing the turn, the fillers at line 10 may perform an unofficial function to secure Di's full co-operation as recipient of his talk (Goodwin, 1981) before he continues speaking. By producing 'eh eh- (0.1) eh-...', he delays the continuation of his turn until the point at which Di turns her head to face him (see gloss of line 10).

Once Di has fully oriented herself towards Roy, he continues his turn, delivering the connective *because* after a couple of restarts. The connective is a strong signal that Roy's turn is not complete as it projects an activity-in-progress – reasoning – whilst also signalling grammatical incompleteness. In addition, it is produced with continuative intonation. The connective also links upcoming talk to the prior change of state token *oh* at line 8. The turn-so-far is clearly designed to project an upcoming reason for Roy's disappointment at the news that Timmy's parents will not be at the party. Roy then runs into trouble, as signalled by a cut-off filler, and a lengthy pause: '...eh- (0.8)' (lines 10 and 11). It is interesting to note that, although the turn has stalled in terms of progressivity, Roy does not avert his gaze, as might be expected of a person engaged in dealing with trouble in his talk. Rather, he looks intently at Di, whilst holding his head, body posture and still-extended hand quite motionless in a decidedly expectant pose. This package of non-verbal behaviours gives the impression that Roy is not protecting his turn space from Di, and thus that an incoming from her could be positioned here.

Di takes the opportunity to enter Roy's turn to produce a version of what she has understood to be his projected but unspoken meaning: 'you 'aven't met them either 'ave you' (lines 12 and 13). She delivers the candidate understanding as a statement with a turn-final tag question. This tag question seems different to those that function to signal decisive completion of the turn to which they are attached (Sacks et al, 1974). It appears to mark the candidate understanding as designed to express what Roy already

knows, rather than something he needed to be told.[28] Furthermore, there is a sense in which it implicates shared knowledge. It is not just the case that Di is articulating what Roy knows, and has alluded to in his prior talk but not said; it is something she too already knows. The fact that Roy has not met Di's boyfriend's parents is knowledge that both of them share.

Roy signals agreement with the proffered talk at the point at which he recognises Di's meaning, producing 'NO...' (line 14) in overlap with the word *either*. His confirmation is *no* rather than *yes* because the turn is framed in such a way that the preferred response is negative. Roy's early start is enabled by the fact that it is *his* projected but unrealised utterance that Di is articulating. Interestingly, having agreed with Di's talk, Roy then delivers further agreement tokens: '...e- e- exac'ly yea::h' (lines 14-15), one of which, *exactly*, is a particular form that appears to confirm the precision of some element of talk. Thus, Roy provides not only *agreement* with the comment that he hasn't met Timmy's parents, but also *confirmation* that *that* is 'exactly' what he meant to say. Roy's use of *exactly* underscores that it is not that *he* is agreeing with *Di's* reason for his expressed disappointment, but that *Di* is agreeing with *his* reason, conveyed in preceding talk but not said 'in so many words' (Schegloff, 1996c). Di's next turn response reinforces this reading of who is agreeing with whom – she receipts the reason as Roy's, saying *yeah* before resuming her abandoned explanation for why Timmy's parents won't be at the party: 'yeah no they're um (1.0) tuh they're doin' Robot Wars...' (line 18).

Roy's turn-in-progress is in visible trouble at the point at which Di offers her candidate understanding. Given that his non-verbal behaviour suggests that he is not averse to Di entering his turn space during the 0.8 second pause at line 11, it is noteworthy that she does not take the opportunity to begin articulating his meaning any earlier. It seems possible that she may withhold entry into Roy's turn because of the effort that he made to win the floor from her in the first instance. It may be that, given the weight of preceding turn-gaining and turn-holding signals deployed by Roy, Di is momentarily unsure as to whether entry into his turn will actually be welcomed.

A second example is displayed in Extract 26 below:

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[28] See discussion in Goodwin (1981: p. 153) of the tag question as an element which transforms a statement into an action appropriate to a knowing recipient. See also Schegloff (1996a: fn 36) for a brief discussion of the recipient design function of some (British) tag questions.

Prior to this extract, Di and Roy have been talking about how nice Roy's dining room is looking. From line 1, Di initiates a comparison with the room's appearance under the previous owner's care, something that they both witnessed during a viewing of the property prior to Roy's purchase of it.

```
1        Di      looks really different (.) to when em (.) 'member we
2                come round to look at it
3        Roy    ⌈yeah (.) (un)-=
               ⌊((grins, smiley voice...
4        Di     ⌈='n' that woman was 'ere
               ⌊((looks around the room))
5               (0.3)
6        Roy    ⌈YEAH
               ⌊((grins, smiley voice))
7               (0.2)
8    →   Di      looks a lot bigger doesn' it
9    →   Roy    ⌈°hh yes, bi-          becu⌈z-        ⌉
     →         ⌊((raises hand, palm up, index finger extended, beats 1ˢᵗ 3 sylls, sweeping point to
     →          right on 'cuz'...
10   →   Di                              ⌊>sh    ⌈e 'ad a lot of::< (0.1)
     →                      ...pointing ends))    ⌋
11   →           cr°ap° in 'ere °(di'n't s(h)he)°   ⌈°hhheh heh°
12   →   Roy                                        ⌊yeăh- well
13   →          ⌈yeah yeah e- e- exac'ly yes
     →         ⌊((smiles))
14   →   Di      yeah nah it looks really nice
15       Roy    yeah
```

In line 1, Di begins an assessment of the room, but reformulates her turn using the verb *remember*: 'looks really different (.) to when em (.) 'member we come round to look at it' (lines 1 and 2). Lerner (1996: fn. 7) refers to *remember when* as a 'reminiscence recognition solicit', a device used to initiate a collaborative story telling. In response, Roy gives Di's pre-sequence a go-ahead: 'yeah...' (line 3), to which Di latches her continuation of the story: ''n' that woman was 'ere' (line 4), deploying a marked person reference term, *that woman*. During this phase of the story telling, Roy starts to grin and Di glances around the room. Thus, both signal non-verbally that they are conjuring a shared memory of the visit in question, and a mental image of the way the room looked at the time. Roy's grin and Di's marked reference term suggest that the developing story will take a negative stance towards the previous owner of the house. In line 8, Di continues the story by producing an assessment of the dining room's current state, followed by a tag question: 'looks a lot bigger doesn' it'. As noted in Extract 25, the tag question serves to mark Di's observation as designed to express what both Roy and she already know, and reinforces the impression that they are involved in a collaborative story telling.

In line 9, Roy takes an audible inbreath. This suggests that he will go on to produce an extended turn. He agrees with Di's assessment of the room and then continues with the connective *because*: '°hh yes, bi- becuz-'. By beginning his turn in this way, Roy succeeds in invoking Di's prior assessment as directly sequentially relevant to his turn, whilst also projecting that more talk is to follow. The use of *because* projects more talk by signalling the grammatical and pragmatic incompleteness of the turn-so-far. Specifically, it projects that an explanation for Di's observation is warranted. In addition, prior and co-occurring context, both verbal and non-verbal, convey information about the *type* of explanation that may be upcoming. The prior context combines comment on the room size with a negative stance towards the previous owner and an element of humour. Co-occurring context is provided by Roy pointing around the room. As he begins the connective, he breaks his gaze with Di to look at his gesturing hand, in order to emphasise the interactional relevance of the gesture to the ongoing talk. Given this context, Roy's turn-so-far strongly projects an upcoming explanation for why the room now looks bigger than it did when *that woman* owned the house. In contrast with Extract 25, there is no non-verbal behaviour that could be construed as a loosening of the restrictions on Di entering Roy's turn space.

However, Di does enter into Roy's turn to produce a version of what she has understood to be his projected but unspoken meaning: '>she 'ad a lot of::< (0.1) cr°ap° in 'ere °(di'n't s(h)he) hhheh heh°' (lines 10 and 11). The early start of Di's entry into Roy's turn-in-progress, in overlap with the final sound of the connective, suggests that Roy's meaning is strongly projected by prior context – it is quite clear to her what he means to say. As in Extract 25, the proffered understanding is delivered as a statement with a turn-final tag question. Again, the tag question serves to mark the candidate understanding as designed to express what Roy and Di already know. Di's articulation of the sense of Roy's projected turn is highly critical of the prior owner of the house, referring to her belongings as *a lot of crap*. The laughter within and after her turn, coupled with reduced volume, serve to acknowledge the force of the criticism.

Roy's response to Di's candidate understanding: 'yeăh- well...' (line 12), is not as immediate or enthusiastically accepting as was his response in Extract 25. The agreement token is cut off, and followed by *well*, a marker of an upcoming dispreferred turn (Pomerantz, 1984), although there is no delay in the talk to reinforce the impression of dispreferredness. It is possible that Roy might be reluctant to align himself fully with the highly critical language with which Di has articulated what amounts to *his* meaning, but there is no clear evidence that this is the case. He very quickly smiles and delivers

further agreement tokens, plus the confirmation *exactly*: '...yeah yeah e- e- exac'ly yes' (line 13). Thus, as in Extract 25, Roy signals not only that he is in agreement with Di's proffered understanding, but he also indicates that she has articulated 'exactly' what he meant to say. Roy's use of *exactly* in this sequential position again seems designed to show that it is not that *he* is agreeing with *Di's* reason for the prior perceived smallness of the room, but that *Di* was agreeing with *his* reason, conveyed in preceding talk but not said 'in so many words'. Di's next turn response reinforces this reading of who is agreeing with whom – she receipts the reason as Roy's, saying *yeah* before offering another assessment of the room's current status: 'yeah nah it looks really nice' (line 14).

Unlike in Extract 25, there is no visible sign of trouble in Roy's turn-in-progress at the point at which Di offers her candidate understanding. Neither is there any non-verbal encouragement for her to enter his turn, nor a space for her to do so. This gives the impression that Roy intended to continue the turn himself. However, there is nothing to suggest that he is unhappy with her actions; his *exactly* demonstrates that he treats her talk as what he meant to say.

In summary, these extracts illustrate a very different type of turn construction to that seen in section 7.2. Here, Roy and Di collaborate to produce between them a single action structure which is initiated by Roy. Thus, the construction of a single turn is accomplished over a sequence of three turns. The semantic and grammatical characteristics of Roy's turn-in-progress project much about upcoming talk, and also make links with prior talk. As a result, Di is able to recognise the type of action that is underway, and to identify a place, after the connective, where she can come into Roy's turn space to offer a candidate understanding. She seems to do so regardless of whether or not Roy initiates such collaboration by making eye contact, gesturing and leaving a space for her to enter his turn. Although Di's talk in this sequence superficially resembles what Lerner (1991; 1996) calls an anticipatory completion, it does not represent a *grammatical* completion of Roy's turn, precisely because his turn does not contain a discernible 'sentence-in-progress' (Lerner, 1991). Thus, Roy does not produce enough of an utterance prior to Di's talk to render her efforts recognisable as a completion. Rather, what Di does constitutes an articulation of Roy's projected *meaning*. The tag form does much to signal that Di's talk is a version of what Roy 'means to say', since it indicates that Di is saying something that is already known to Roy. Although Di's talk is not a completion, its form does seem to be adapted to blend in with what little 'grammar' is actually displayed by Roy's turn-in-progress – the *because* term. Thus, she designs her turn as a statement, rather than a question, and as a

candidate understanding, rather than a correction, such as *you mean X*. In this way, her talk flows on from the *because* term rather than halting the progressivity of his turn. All this suggests that Di is responding to Roy's talk in a highly skilful way, which minimises the attention drawn to his aphasic difficulties with taking a complete turn-at-talk. Roy's response, a receipt plus *exactly*, is very important to the identity of the collaborative sequence, since it retrospectively claims Di's talk as an accurate reading of what he meant to say, and thus, by default, as a completion of his turn. There is some sense in which Roy's response causes Di's talk to resemble an anticipatory completion of the sort discussed by Lerner (1991; 1996), even though his original turn does not contain enough grammar for this to be the case. Roy takes the opportunity to claim Di's talk as his own whether or not he actively initiates the collaboration by 'inviting' her into his turn.

The success of such collaborative sequences is aided by the characteristics of the connective *because*. In semantic terms, *because* is strongly associated, in non-aphasic conversation, with expressing a reason for prior talk (Couper-Kuhlen, 1996), and it often appears in talk after an assessment, as a speaker presents an account for something. In Extract 26, *because* is sequentially positioned after an assessment in Di's prior talk. In Extract 25, it occurs after Roy's delivery of the change of state token *oh*, which can be seen to function in a similar way to an assessment, since it conveys his disappointment at the news he has just been told. Thus, in both extracts, the semantic projectability of *because* is exploited in full. In addition, the connective also displays useful grammatical properties. It projects more to come by way of the continuation inherent in an incomplete grammatical structure, and it continues the grammar of prior talk (whether by Di or Roy himself), such that the turns that are positioned immediately before and after *because* could hypothetically be part of the same turn spoken by the same speaker. Thus, the connective provides a rich resource for Roy to utilise and for Di to analyse.

By collaborating to produce a turn, Di and Roy co-construct a strong display of congruent understanding. This seems to be influenced in both extracts by the fact that they are engaged in discussing events and people of which they both have first-hand knowledge and experience. Di is a knowing recipient (Goodwin, 1981; 1987) of Roy's talk, and they have a considerable amount of shared knowledge on which to draw. In addition, in Extract 26, they are engaged in a joint story telling sequence.

7.3.2 retrospectively claiming Di's talk as what he 'means to say'

The two extracts in section 7.3.1, above, show both Roy and Di doing distinctive work to signal to each other that they are collaborating to produce Roy's turn. In a related but structurally different sequence, Roy retrospectively claims Di's next turn response to his turn-in-progress as what he 'means to say' by confirming it with *exactly*. This occurs despite the fact that Di does not design her turn to be a version of his projected meaning; she receipts his prior talk before offering a full turn, and her turn has no tag question to signal that it is a version of his projected meaning. This phenomenon will be illustrated in Extract 27 and Extract 28, below.

Extract 27 Roy/Di June00#7.*you said he was going to do something*

Roy and Di are discussing her upcoming 21st birthday party, which her boyfriend Timmy has organised.

```
1       Di      you said e was gonna do summink din't you=you
2               said o:::h Timmy'll do summing
3       Roy     (yeah)
4       Di      but I thought he wasn't gunnue
5       Roy     °hhh well i- i-=
6       Di      =I really did
7    →  Roy     e- u- i- i- exac'ly (0.1) bi- because ⌈(0.3) I don't mind
                                                     ⌊((points to self))
8               (0.4)
9       Di      yeah=
10   →  Roy     =eh- e- u- u- u- BU:T, I'm su:re, (0.4) eh- °I thought no:,°
11   →          uh-    ⌈eh- eh- ⌉er-
12   →  Di             ⌊yeah no⌋
13   →          summink looks a bit fishy here=
14   →  Roy     =e- e- EXAC'ly  exac'ly
15              (0.2)
```

At line 7, Roy initiates a new turn with a confirmation of prior talk, *exactly*, followed by: '...because (0.3) I don't mind'. This is minimally receipted by Di in line 9 after a 0.4 second pause. Roy quickly continues, latching his next turn to Di's receipt, producing: 'eh- e- u- u- u- BU:T, I'm su:re, (0.4) eh- °I thought no:,°...' (lines 10 and 11). The continuative intonation indicates the incompleteness of the turn at this point, as do the fillers that follow. The way that Roy designs this turn-in-progress projects information about the meaning of the upcoming talk. The precise meaning of the fixed unit *I don't mind* in this context is unclear, but 'not minding' suggests that there will be no party. Given this context, the subsequent contrastive connective *but* suggests that the comment that follows will address the other possibility; a party will occur. The fixed unit *I'm sure* projects a strong stance and the direct reported speech '...I thought no:...',

particularly with its continuative intonation and vowel lengthening, conveys a sense of disbelief or suspicion. Thus, Roy is clearly conveying his thought processes with respect to whether there would be a party or not, and projecting a strong disbelieving stance towards some suggestion (possibly by Timmy?) that there would be nothing happening.

The fillers that follow the reported speech (see line 11) indicate that Roy is having problems with progressing the turn further. Di identifies these hitches as a place where she can start to talk (Jefferson, 1983). She does so, but not to supply a candidate understanding for what Roy means to say, as she does during collaborative construction. Rather, she makes a next turn response, beginning with a receipt of the turn-in-progress: 'yeah no summink looks a bit fishy here' (lines 12 and 13). The absence of a tag question is further evidence for this not being a candidate understanding of what Roy means to say. However, despite this, Roy validates her talk with '=e- e- EX<u>AC</u>'ly exac'ly' (line 14). Thus, Roy casts Di's next turn response as a candidate understanding of his projected meaning, even though she has not designed the talk in this way. At the point at which Di comes into Roy's turn, he does seem to be experiencing some trouble with continuing, but he has not indicated a need for assistance. Despite indications that he would have continued with the turn himself, Roy does not treat Di's incoming talk as turn competitive, rather he welcomes it enthusiastically and takes the opportunity to adopt it as his own.

In contrast with the collaborative turn construction sequence, Di receipts the meaning of Roy's turn-so-far before offering further talk. This suggests that she is motivated to display her understanding of his talk. However, this can only happen when Roy's turn actually conveys some *content* for her to receipt. In the collaborative sequences examined in section 7.3.1 above, Roy's turn-so-far consists solely of a receipt token or discourse marker plus a connective, and thus there is, at the point at which Di enters his turn space, no content for her to receipt, because, although strongly projected by context, Roy's meaning remains entirely unspoken. In this extract, however, there is a considerable amount of talk from Roy for Di to receipt. Her subsequent talk, although not designed to be a version of what Roy means to say, does nevertheless have a similar function, precisely because to take a next turn, she must arrive at and display an understanding of the prior turn. Roy is able to capitalise on the context-dependent nature of successive turns at talk (Heritage, 1984a) in retrospect, in order to claim Di's talk as his own.

A second example is shown in Extract 28, below:

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Di and Roy are discussing which (elderly) relatives she has invited to her birthday party.

```
1       Di      like >nana- our- my nan and granddad< wouldn't
2               enjoy it would they
3       Roy     (0.3) o:h no::. wĕll, eh, e- um, (.) I s'pose, (0.4) er,   ⌈(0.5)
                                                                          ⌊((raises hand...
4       Di      it'll just be nicer ⌈/fʊs/- for us to go down to see nan
                                    ⌊((Roy lowers hand onto table top))
5               and granddad in Lower Halden >I think<
6       Roy     yeah. yeah.
7  →    Di      cos it's gonna be quite LOU:D an' (0.1)         ⌈eh- so:
8  →    Roy                                                    ⌊e-
9  →    Roy     OH,    ⌈(0.2) eh- (.) d- eh- Ruby, (0.2) f:   ⌈ine,=
   →           ⌊((raises open hand...                        ⌊((flourish, Di nods...
10 →    Di      =yeah= ⌈=it's granddad       ⌉
   →           ...Di nods))                 |
11 →    Roy            ⌊but, uh,            ⌋        ⌈i- i- i- i-
   →           ⌊((moves hand back across body ⌊((flourish, nods and smiles at Di))
12 →           ⌈i- i- i-
   →           | ((releases gesture))
13 →    Di      ⌊°hh we went to- Timmy did
14              his cousin's twen'y first on Friday night?
15      Roy     oh    ⌈yeah?
16      Di            ⌊deejaying...
```

At lines 1 and 2, Di produces an account for why she will not invite her grandparents (Roy's parents) to her birthday party: 'like >nana- our- my nan and granddad< wouldn't enjoy it would they', to which Roy responds with a turn that stalls in terms of progressivity: '(0.3) oh no well, eh e- um, (.) I s'pose, (0.4) er, (0.5)' (line 3). Despite Roy's prosodic, grammatical and gestural turn holding cues, Di takes advantage of the hitch in progressivity in order to enter Roy's turn space to add a second account: 'it'll just be nicer /fʊs/- for us to go down to see nan and granddad in Lower Halden >I think<' (lines 4 to 5). By doing so, she effectively erases Roy's turn at line 3 from the sequential context, since she does not build on its meaning in any way.[29] After a receipt from Roy (line 6), Di continues with a reason why she thinks it best to visit her

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[29] This sequence of talk is interesting because it demonstrates an altogether different pattern of interaction to that of prior extracts, although each consists of an incomplete turn from Roy. His turn-so-far clearly projects more talk expressing an opinion designed to soften the emphatic 'o:h no.' with which he initially receipts Di's statement. The turn stalls, creating a space where Di could potentially supply a candidate understanding of his projected meaning, as she does in Extract 25 and Extract 26, or take a next turn built on his prior, as in Extract 27. However, she does neither of these things, and chooses instead to pursue her own agenda. The nature of this agenda is revealed by her subsequent talk; she thinks that it will be better for her and Timmy to visit the grandparents at their home. She seems to be keen to display to Roy that she *is* proposing to see her grandparents in order to celebrate her birthday, just not at the party. In this way, Di shows that she is oriented to the delicacy surrounding the issue of excluding her grandparents from the celebrations. Because of her pursuit of this agenda, Roy's incomplete turn at line 3 is effectively deleted from the conversation, his meaning lost.

grandparents at their home instead of inviting them to the party: 'cos it's gonna be quite LOU:D an' (0.1) eh- so:' (line 7). Although the connective *and* suggests she might continue her turn, the 0.1 second pause that follows provides Roy with a possible point of entry into her turn space. He produces a cut-off sound at exactly the same moment as Di continues with: 'eh- so:', and a battle for the floor looks likely to ensue. However, as Di says *so*, she withdraws her gaze, presenting Roy with another opportunity to claim the conversational floor. He succeeds by producing the change of state token *oh*, which, because of its strong association with additional talk by the *oh*-producer (Heritage, 1984b), causes Di to withhold further talk to give him the opportunity to elaborate on what lies behind his production of the particle. Roy elaborates by producing: '(0.2) eh- (.) d- eh- Ruby, (0.2) f:ine,' (line 9). His turn is built using the novel noun-initial construction discussed in section 7.2.1 above. Thus he produces *Ruby*[30] followed by an assessment term, the adjective *fine*. Despite the agrammatic nature of the talk, the two elements are packaged into a single construction via prosodic, sequential and pragmatic means, such that Roy clearly conveys a comment on the noun. Here the resulting conversational action is assessment. The assessment term is produced with continuative intonation, indicating the incompleteness of the turn at the point at which the comment is delivered. The way that Roy designs his turn-so-far projects considerable information about the meaning of the upcoming talk. By referring solely to *Ruby*, only *one* of the two people invoked as the focus of Di's prior accounts at lines 1 to 2 and 4 to 5, Roy makes relevant upcoming information about the other person, i.e. granddad. He reinforces this impression by producing contrastive stress on the noun *Ruby*. Furthermore, by positively assessing Ruby's reaction to a noisy party, given that he and Di have previously agreed nan and granddad *would not* like the party (lines 1 to 3), a negative reaction from granddad is implicated. These features of the turn's design and sequential placement clearly project the upcoming talk will be about granddad, and that its meaning will contrast with the prior positive assessment.

Di orients to this wealth of projected meaning, but not to supply a candidate understanding for what Roy means to say. Rather, she makes a next turn response, beginning her receipt non-verbally as Roy says *fine*. She identifies the end of the assessment term as a point at which she can enter Roy's turn space, and takes the opportunity to produce a latched receipt: 'yeah' (line 10), before saying 'it's granddad' (line 10). She continues to nod as she says this. The absence of a tag question shows

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[30] Ruby is his mother, Di's nan.

that she has not designed her talk to be a candidate understanding of what Roy means to say. In overlap with *it's granddad*, Roy attempts to continue his turn with 'but, uh,...' (line 11). The fact that Di is able to respond to the meaning of Roy's turn at exactly the same time as he is attempting to complete it is proof of the powerful projection inherent in the design of his turn.

At the point at which Roy recognises that Di is saying *granddad* he cuts off his continuation to produce repetitions of the vowel /ɪ/ (lines 11 and 12). This particular restart commonly precedes his production of the word *exactly* (see for example, Extract 21, page 170, and Extract 22, page 172). It seems possible that Roy may have abandoned his continuation in order to cast Di's next turn response as a candidate understanding of his projected meaning by saying *exactly*. Simultaneous nodding and smiling (see gloss of line 11) certainly suggests that this could be the case. However, the point remains speculative, because Di starts up in overlap to begin a story telling (lines 13 and 14), and Roy abandons his turn and gesture to become the recipient of Di's talk. Despite having not finished his turn, Roy does not treat Di's incoming at line 10 as turn competitive.

In contrast to the collaborative turn construction sequence discussed in section 7.3.1 above, Di receipts the content of Roy's turn-so-far before offering further talk. The fact that she is able to do so is a reflection of the amount of talk that Roy produces, and the clear meaning that it conveys. By receipting and then offering subsequent talk that is oriented to the meaning that Roy projects but does not say in so many words, Di is able to be highly affiliative, demonstrating that she is in tune with Roy's thoughts and feelings. For Roy, Di's early next turn response is advantageous since it conveys his projected meaning without him having to complete his own turn. He seems happy to abandon his own efforts in order to retrospectively claim Di's talk as his own.

In summary, these two extracts show how Roy is able to retrospectively cast Di's talk following his as-yet-incomplete turn as a version of what he means to say, even though Di does not design her turn to function in this way. Whereas in the collaborative sequences she presents a candidate understanding of projected but unspoken talk, marked as such with a tag, here she does a next turn response, receipting and building on Roy's meaning. This is made possible by the relatively full nature of Roy's turn-in-progress, which results in Di being the recipient of concrete meaning that she can build on in next turn position. In the collaborative sequences of section 7.3.1, Roy's turn-in-progress is extremely spare, consisting of the connective *because* preceded by one other minimal element such as a receipt token, and thus there is no explicit meaning for Di to

build on. Di's talk in Extract 27 and Extract 28, although not designed to be a version of what Roy means to say, cannot help but reflect his intended meaning as a result of the sequential context inherent in the turn-by-turn progression of talk-in-interaction, whereby each turn is shaped by the context of the prior turn (Heritage, 1984a). It is this feature of sequentiality that Roy is able to capitalise on in retrospect, in order to claim Di's talk as his own.

7.3.3 problems encountered when deploying Di's talk as a resource for turn construction

In Extract 29, below, as in Extract 27 and Extract 28, Di produces a next turn response to the spoken and projected meaning of Roy's turn-in-progress that he retrospectively claims as a version of what he means to say. However, as the sequence unfolds, it emerges that Roy is not completely happy with the meaning he has claimed for his own. This is because Di has misunderstood the thrust of his incomplete turn. As a result, he initiates repair in order to guide Di to a next turn response that accurately conveys his intended meaning. The way in which Roy and Di work to resolve this difficulty sheds further light on the methods of turn construction discussed in sections 7.3.1 and 7.3.2.

Extract 29 Roy/Di June00#8.*brilliant because*

Di has been telling Roy, in detail, about plans for celebrating her birthday, which extend over several days.

```
1        Di      an' then Friday I'm gonna try an' chill out, an' then
2                Saturday('s) my party
3        Roy     (0.2) yeah (0.4) but (.) who knows=
4        Di      =who ⌈knows
5        Roy           ⌊eh- heh heh heh heh heh heh                       Roy
6   →            ⌈heh heh        ⌉heh°hhh hhehh yeah °h ⌈but      ⌉       maintains eye
7        Di      ⌊who knows      ⌋                      ⌊°(no)°  ⌋       contact
                 ⌊((Di looks down))   ⌋                                  throughout
8   →    Roy     ⌈y- eh- eh- eh- eh-          ⌈[b˺] er- BRILLiant,       the sequence
                 ⌊((Di looks up and nods...   ⌊((Roy holds out open hand, palm up...,
9   →    Di      ⌈y    ⌈eah   ⌉
                 ⌊...stops nodding, still making eye contact))
10  →    Roy           ⌊be   ⌋                      ⌈COZ, (0.2)
    →                  ⌊brings index finger and thumb together...  ⌊into pinching gesture))
11  →            ⌈er:::=
    →            ⌊...releases pinching gesture, holds hand still, palm and fingers pointing up...
12  →    Di      ⌈=got loads of stuff goin' on=
    →            ⌊((stands up to adjust trousers, turns body away from Roy, he holds hand static,
    →            looks up to try to maintain eye contact...
13  →    Roy     =e- yeah (i-) i- exac'ly,
14  →            ⌈(.)                          ⌈a- and also,
                 ⌊...rotates hand palm-down...  ⌊beats 1ˢᵗ 3 sylls with pointing finger))
```

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```
15  →          ⌈(0.2) uh- WO:RK, (.) be- becu   ⌈z,-
    →          ⌊((open palm gesture))           ⌊((grins, animated face))
16  →          ⌈(0.4)
    →          ⌊((mutual gaze, Roy moves hand towards Di...
17  →  Di      ⌈yeah it's            ⌈really good,
    →          ⌊((Roy holds hand posture still... ⌊((and nods))
18  →          ⌈>at work when it's yer birthday<
    →          ⌊((Roy's grin disappears, clenches hand at 'birthday', Di looking out of window))
19  →  Roy     ⌈(0.4) yes, but                         ⌉also,
               ⌊((visible swallow during pause, waves hand about))   ⌋
20  →          ⌈(0.2) °l-°       ⌉   ⌈er leader,              ⌈(0.2)
    →          ⌊((points at Di))  ⌋  ⌊((flourishing gesture)) ⌊((Di nods))
21  →          ⌈becuz,-              ⌈(0.2)
    →          ⌊((moving hand around)) ⌊((nods once, animated, smiley face...
22  →  Di      yeah  ⌈fin   ⌈ished my cour  ⌈se, an'
                     ⌊((counts '1' on thumb))
23  →  Roy                ⌊i- i-            ⌊i- i- eXAC'ly.   ⌉you know,=
                          ⌊((waves hand about.......................))⌋
24  →  Di      =bin promoted, an' got a pay rise (too)=(every)thing's
25  →          going really well at the moment
26     Roy     yeah
27             (0.3)
28     Roy     °yeah° i- i- (0.2) uh- proud, really °ye   ⌈ah°
29     Di                                                 ⌊yeah
```

After an extended telling from Di about plans to celebrate her birthday, the end of which can be seen in lines 1 and 2, Roy delivers: '...but (.) who knows...' (line 3), in a joking voice. Di repeats this in line 4, and laughter ensues. As the sequence closes in lines 6 and 7, Roy begins a new turn, saying: '...yeah °h but y- eh- eh- eh- eh- /bʰ/ er-BRILLiant,' (line 8). The connective *but* suggests that the talk is linked to the prior sequence in some way. The turn is built using the adjective-initial construction discussed in section 7.2.2 above, with the adjective performing the action of assessment. The assessment term is prosodically upgraded, with increased volume on the first syllable and marked fall-rise pitch which renders the turn-so-far hearably suspended. This suggests that Roy intends to extend the turn to encompass the action of reasoning, as seen in section 7.2.2, using the connective *because*. Momentarily before he can continue however, Di begins to receipt his assessment with 'yeah' (line 9). This suggests that she is treating Roy's turn as complete, which it could be in terms of action structure. She does this despite the presence of continuative intonation.[31] In order not to lose the turn, Roy upgrades his talk, producing the second syllable of *because* with increased volume. This syllable emerges in the clear. However, the turn then stalls, as

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[31] Once again, this demonstrates the vulnerability of a turn-initial adjective construction to interruption after the assessment term has been delivered. This idea was discussed with reference to Extract 20 on page 136.

signalled by a 0.2 second pause and a stretched filler. The connective *because* strongly projects more talk to come in terms of action structure and of grammar, and its non-final intonation renders the turn-in-progress hearably incomplete at this point. Further evidence of the incomplete status of Roy's turn-in-progress comes from gestures that co-occur with his talk, reproduced here:

```
8        Roy      y- eh- eh- eh- eh- ⌈/b˥/ er- BRILLiant,
    →                              ⌊((Roy holds out open hand, palm up...
9        Di       y     ⌈eah   ⌉
10       Roy            │be    ⌋              ⌈COZ, (0.2)
    →                   ⌊brings index finger and thumb together...  ⌊into pinching gesture...
11                ⌈er:::
    →             ⌊...releases pinching gesture, holds hand still, palm and fingers pointing up...
```

The gesture he begins in accompaniment to the assessment term is clearly not completed at the point at which the assessment is uttered, which suggests that more talk will follow the assessment. The gesture continues during the connective, and the resulting pinching posture is held frozen through the 0.2 second pause after the connective, also signalling more to come (Streeck, 1993). Roy releases the pinch during the filler in line 11, indicating that he may have run into trouble with progressing the turn, but the hand posture remains static, so the impression is again one of a continued attempt to say more. Thus, grammar, action structure, prosody and non-verbal behaviour all indicate that the turn-so-far is designed to project incompleteness, and that, despite running into some local trouble, Roy will continue his attempt to express a reason for the assessment.

Despite this, Di enters Roy's turn, producing: '=got loads of stuff goin' on' (line 12). Her turn, which is designed to run on from her receipt at line 9, represents a closing summary of the previous sequence about her birthday celebrations, and demonstrates that she is treating Roy's *brilliant* as an assessment of her past talk. A closer examination of Di's non-verbal behaviour during turns 8 to 12 supports the view that she has interpreted the assessment as backward facing and thus sequence-closing:

```
8        Roy      ⌈y- eh- eh- eh- eh- /b˥/ er- BRILLiant,
    →             ⌊((Di nods...
9        Di       ⌈y     ⌈eah   ⌉
    →             ⌊...stops nodding))
10       Roy            ⌊be    ⌋COZ, (0.2)
11                er:::=
```

```
    →              R----------------------,,
12      Di          ⌈=got loads of stuff goin' on=
    →              ⌊((Di stands up to adjust her trousers, turns body away from Roy...
```

At line 8, Di starts nodding as Roy begins his turn with fillers, and carries on nodding throughout his delivery of the assessment. The fact that the nodding is positioned too early to be a response to the assessment suggests that it is a continued comment on previous talk, and thus that Di is treating Roy's turn as related to the prior topic of birthday celebrations. In addition, she stands up as she proffers a response in line 12, and proceeds to pull up her trousers, averting her gaze from Roy during the word *going*. By the end of her turn, she has completely turned away from Roy. The overt disengagement from the interaction signals that she is treating this as the end of the prior sequence of talk. Her non-verbal behaviour mirrors her verbal treatment of Roy's assessment, with both functioning to close down the talk.

The presence of a receipt and the absence of a tag question suggests that Di's 'got loads of stuff goin' on' is *not* an attempt to offer a candidate understanding of what Roy means to say in his incomplete turn. However, as discussed in section 7.3.2 above, Roy takes the opportunity to retrospectively claim her talk as what he means to say, and signals as much with *exactly*: '=e- yeah (i-) i- exac'ly,' (line 13). In contrast with prior examples, *exactly* here is produced with clear non-final intonation which renders the turn hearably incomplete, and Roy subsequently continues with '(.) a- and also,...' (line 14). Semantics and intonation indicate that he wishes to extend the reasoning work being done because there is something more to be added to the matter. This suggests that, although Di's talk will 'do' as a version of Roy's meaning, it is *not* fully acceptable to him in this form. By extending the sequence at line 14, he appears to be initiating repair in order to 'fine-tune' her talk into a more accurate version of what he means to say.

After a short pause and a filler, Roy adds a new noun: '(0.2) uh- WO:RK, (.) be-becuz,- (0.4)' (lines 15 and 16). The design of the turn, 'referring expression + *because*', followed by a pause, mirrors that of the initial part of the turn at line 8 – 'assessment + *because*', followed by a pause – in a way that suggests that Roy is presenting Di with information that *adds* to his prior assessment rather than replacing it. The new noun, *work*, is made particularly salient via increased volume and elongation of the vowel. The continuative intonation of the noun and the connective serve as strong indicators that the turn is still not complete. By recycling the turn structure with different content, Roy may be trying to prompt Di to 'try again' with her next turn

response. There are certainly non-verbal signs that he would be happy for Di to come into his turn space once again. He grins at her and looks animated as he finishes the connective (see gloss of line 15) and, during the pause that follows, he moves his hand towards her in a way that suggests he is offering her the turn (see gloss of line 16).

Di takes the opportunity to enter Roy's turn space for a second time to say: 'yeah it's really good, >at work when it's yer birthday<' (lines 17 and 18). Again, she *responds* to Roy's turn, rather than offering a candidate understanding of what he means to say. Her response shows that she has understood his talk to convey that the new referring expression *work* is the focus of the original assessment term *brilliant*, and that reasoning is still the projected action. She continues to treat his action as linked to the prior topic of birthday celebrations.

Even before Roy verbally receipts Di's talk, his non-verbal behaviour suggests that she has still failed to convey exactly what he means to say:

17   Di   ⌈yeah it's   ⌈really good,
     →   ⌊*((Roy holds hand posture still...* ⌊*((and nods))*
18   ⌈>at work when it's yer birthday<
     →   ⌊*((Roy's grin disappears, clenches hand at 'birthday', Di looking out of window))*

Roy's nodded receipt of '...really good...' (line 17) and his grin soon disappear as the rest of Di's meaning becomes clear, and he indicates via a clenched hand that he will once again move into speakership as she completes her turn.

Although Roy receipts Di's second response, this time there is no *exactly* and the turn is delayed, indicating that it is dispreferred: '(0.4) yes, but also,...' (line 19). The acknowledgement token is produced with continuative intonation, and clearly signals more talk is to come. His choice of the connective *but* signals that what is upcoming will contrast with Di's prior talk, and indicates more overtly than before that Di has not fully expressed his intended meaning, particularly as *but also* is set in direct contrast with *and also*, the more neutral connective expression that he originally employed in line 14. He then adds a second new noun: '...(0.2) °l°- er l̲e̲a̲der, (0.2) becuz,- (0.2)' (lines 20 and 21). Once more, he seems to be signalling that, although Di's talk is not completely implausible as a version of what he means to say (and thus deserving of an overt rejection), neither is it the exact meaning that he wishes to convey. Once again, the structure, 'referring expression + *because*', serves to *add* to prior talk rather than to replace it. The construction seems designed to prompt Di to supply yet another response, one that will hopefully be closer to Roy's intended meaning.

It is the new noun *leader* in the context of the prior noun *work* that finally pinpoints Roy's meaning for Di – she has recently been promoted to 'room leader'[32] at work, having successfully completed a course. There is a very slight nod from her in receipt of the noun itself, indicating recognition (see gloss of line 20). Her talk: 'yeah finished my course,...' (line 22), is once again designed as a next turn response rather than a candidate understanding. However, this time it provokes an emphatic response from Roy that retrospectively casts it as what he means to say: 'i- i- i- i-eXAC'ly. you know,' (line 23). Roy indicates that the problem with getting his meaning expressed is finally at an end by deploying a prosodically marked version of *exactly*, with clear turn-final falling intonation and increased volume, at the recognition point of the word *course*, the key term that confirms Di's understanding. Di's subsequent account: 'an' bin promoted, an' got a pay rise (too)=(every)thing's going really well at the moment' (lines 22, 24 and 25), seems designed to echo Roy's original assessment. The fact that Roy then goes on to provide a closing assessment: '°yeah° i- i- (0.2) uh- proud, really °yeah°' (line 28), reinforces the impression that the prior trouble is at an end.

Once the sequence has been brought to a conclusion, the initial trouble with mutual understanding becomes evident. It appears that Roy's assessment term was the beginning of a new account about a positive part of Di's life in addition to her impending birthday, her success at work. However, it was interpreted by Di as a backward-facing assessment of her account of birthday celebrations, the focus of the prior sequence of talk.

This extract provides an interesting example of how Roy's turn construction devices and resources can be vulnerable to misunderstanding. The difficulties seem to arise specifically because of the way that he designs his turn. He builds his turn using the adjective-initial construction described in section 7.2.2, and as noted in the examples discussed in that section, he continues with *because* in order to present a reason for his assessment. In the extracts of section 7.2.2, the adjective-initial construction is used to deliver an opinion on *prior* talk. And this is how Di treats it in this extract; she identifies immediate *prior* context as relevant for the interpretation of the assessment term. However, by the end of the sequence, it is clear that Extract 29 is an example of Roy using the adjective-initial construction to initiate a *new* topic of talk, not to give his opinion on Di's prior telling about birthday celebrations. This differing function of the construction seems to be the root cause of the misunderstanding that ensues; the turn

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[32] See Extract 17, on page 136, for Di's use of this term (line 14).

construction Roy deploys is one that Di seems to associate with the assessment of prior talk, but here it does not have the same function.

Di's first response, 'got loads of stuff goin' on', is worthy of note because, although it gives the impression of building on the content of Roy's turn-in-progress, it also functions as a general summary of the content of her *own* prior account of birthday celebrations in the absence of Roy's intervening talk. This ambiguity of function hints at the possibility that, even though she assumes he is assessing prior talk, the specific interactional purpose of the assessment is not fully clear to her. Given the number of different birthday-related events conveyed during her prior telling, she may be unsure about the exact focus of Roy's isolated assessment term. In this environment of 'loose' intersubjectivity, it seems that Di can design her next turn to match the looseness of Roy's prior turn. By continuing relevant themes in her own prior talk that are compatible with the *activity* inherent in Roy's immediate prior turn, she can construct a next turn that gives the appearance of building on the prior talk of them both. Her second response, 'yeah it's really good, at work when it's yer birthday', demonstrates skilful integration of Roy's additional referring expression with the prior context, and thus clearly demonstrates that she is building on his prior talk. However, as she is still assuming that the action of his turn is assessment of the *prior* talk, her misunderstanding and misrepresentation of his meaning continues.

Roy's response to this situation is interesting. His technique for dealing with the problem of misunderstanding and misrepresentation of meaning involves initially claiming that Di's talk *is* what he means to say, but then prompting a continuation of the sequence, using the connectives *and* and *but* in order to guide her subsequent responses until his exact meaning is expressed. As he does not overtly reject any of her efforts, the problems of misunderstanding and misrepresentation of meaning are kept away from the surface of the conversation. By repeatedly designing his turn-in-progress to exploit the tendency for Di to enter his turn space after *because*, Roy indicates to Di that she should continue to supply further talk on the same topic. The implication is that she is on the right track, but that so far, the meanings that she has volunteered are not entirely what he intended. By supplying nouns, he actively guides her interpretation by pinpointing the context of the original assessment. The relative ease with which he retrieves specific 'on-topic' nouns when he needs them suggests that the initial difficulty with establishing mutual understanding was not caused by any kind of difficulty with providing nouns, but was rather a problem of sequentiality, or 'why this now?', whereby Roy initiated a new sequence by starting his turn with an assessment,

but Di interpreted this as a continuation of the prior sequence, based on her experience of the manner in which he commonly deploys assessment terms.

7.3.4 concluding remarks on Di's talk as a resource for turn construction

In order to deploy Di's talk as a resource for turn construction, Roy offers an incomplete turn that both supplies and projects information about the talk that is to follow. If his turn-in-progress is spare, Di actively collaborates with him to provide a candidate understanding of what he means to say. However, if the incomplete turn provides her with more explicit meaning, she produces a next turn response which reflects her understanding of this meaning. In either case, Roy claims her talk as what he means to say by using the term *exactly*. In the event that Di's talk does *not* actually express what Roy means to say, he accepts it anyway and then prompts continued talk from her, offering additional context to guide her understanding, until she produces a version of his meaning that is acceptable to him.

Roy may be motivated to make use of Di's talk as a resource for turn construction, both collaboratively and retrospectively, because the resulting sequence expresses his meaning and progresses smoothly and swiftly towards completion, whilst leaving intact the assumption that he could have finished his turn himself, whether or not this would have been the case. In Extract 25, Roy indicates that he will produce further talk after a connective but then runs into trouble, and his ability to complete the turn is called into question. In this environment of stalled progressivity, his non-verbal behaviours signal that he would not be averse to Di entering his turn space. What begins as a delay in progressivity becomes a space in which Di can articulate his meaning for him. By collaborating with Di in this way, he is able to mobilise *her* language resources as his own, and thus get his meaning conveyed without further delay or trouble. In Extract 26, there is nothing in Roy's turn-so-far to suggest that he is having trouble with its completion when Di offers her version of what she takes it he means to say. However, he still grasps the opportunity to claim the meaning of her talk as his own. The same is true of Extract 27 and Extract 28, where Roy actually attempts the continuation of his turn-in-progress as Di speaks, but subsequently shows that he is quite happy to abandon his turn and retrospectively cast Di's next turn response as what he means to say. Thus, it seems that Roy may be motivated to make the most of every opportunity to claim Di's talk as his own. Extract 29 shows that this motivation is such that he will even accept talk that is not exactly what he means to say, and subsequently prompt adjustments from Di until she conveys a meaning that is acceptable to him. This behaviour may be

particularly advantageous because the resulting sequence of talk diminishes the potential for exposure of Roy's aphasic problems by legitimately excusing him from having to finish a turn himself. As a result, he is able to maximise his interactional competence by mobilising Di's language resources to his own ends.

7.4   SUMMARY

The CA approach that forms the basis of this chapter reveals a range of turn construction formats in Roy's conversation with Di. Section 7.2, novel turn construction formats, demonstrates three distinctive and recurring grammatical phenomena: the first and second are fronting of a noun (or noun phrase) and an adjective, respectively, into turn-initial position, the third is constructing a turn using a combination of talk and mime. Analysis of turn-initial noun constructions in section 7.2.1 reveals that they function to establish reference to a person or place, and subsequently present a comment about it. As a result, such utterances resemble the non-standard conversational form that occurs in non-aphasic talk, known as topic-comment structure (Li and Thompson, 1976; Keenan and Schieffelin, 1983; Kim, 1995). Roy uses the construction to initiate a new sequence of talk that introduces a new referential item and makes some newsworthy comment about it. Although the item introduced is new to the talk at this point, it is relevant to the topic under discussion. In two of the three examples discussed, establishment of reference becomes an interactional sequence in its own right (Auer, 1984), with Di receipting noun(s) before Roy continues with his turn. If considered in the context of a sentence grammar, the resulting turn constructions are agrammatic – two have no verb, and multiple nouns are produced as a list prior to the comment. Thus, there is no word-order marking of which noun represents the Actor, the Theme, the Goal, etc. This is what marks the construction as different from examples of topic-comment structure in non-aphasic conversation. However, the noun(s) and the comment are successfully packaged as a single turn construction unit via sequential, prosodic and pragmatic means. This method of turn construction may have interactional benefits for Roy, in that it permits him to express complex semantic relations between adjacent lexical items without the need to manipulate aspects of grammar. There is no evidence to suggest that Di has difficulty interpreting such turns.

The analysis of extended turns with an initial adjective, in section 7.2.2, reveals that this construction is used to address prior talk by delivering an assessment of it,

followed by an explanation of that assessment. The assessment consists of a structurally isolated adjective, followed by an account that is linked to the assessment term by the connective *because*. The account is agrammatic, in that it is not constructed from a verb and its arguments. However, it may contain a verb-like element as part of a fixed unit, for example *I suppose* or *I think*. Despite the agrammatic nature of such talk, the elements of the turn are successfully packaged into a single construction that conveys a clear meaning. Links between the elements are achieved via sequential and prosodic means, but also via the use of grammatical connectives and fixed units. These serve to lend an air of grammaticality to Roy's talk without the need for him to manipulate verbs or their arguments. As with noun-initial constructions, sometimes the establishment of reference becomes an interactional sequence in its own right.

Although fronting of a noun may be advantageous for Roy because the fronted element can act as a turn-holding device by projecting that there is more of the turn to come in pragmatic as well as prosodic terms, fronting of an adjective is more problematic. An adjective can, in isolation, perform a complete conversational action, that of assessment, in a way that an isolated noun cannot. Thus, starting a turn with an adjective can leave him vulnerable to losing the floor to an incoming next turn response from Di, precisely because the action appears complete, even if prosody indicates otherwise. This occurs to Roy on two occasions in the extracts discussed in this chapter - Extract 20, (page 167), and Extract 29, (page 193).

In addition to constructions characterised by fronting, Roy's talk also reveals novel structures built from a combination of talk and mime (section 7.2.3). These function to recount events, rather than to convey comments or opinions, as per fronted noun and adjective structures. In such constructions, the events are conveyed via mime, (there are no verbs) whilst nouns, if produced, are conveyed verbally. It is the mime sequence that conveys the main part of Roy's intended meaning. The talk consists mainly of connectives and turn-holding elements such as *now* and *sort of*, although on occasion a noun or element of reported speech may be produced. Once again, as in other types of construction, establishment of reference often becomes an interactional sequence in its own right (Auer, 1984), with Di receipting noun(s) before Roy continues with his turn. Di clearly interprets the function of such a construction to be the expression of an event, since she glosses the meaning by providing an account of an event, conveyed via a verb and its arguments. It seems that, when Roy wishes to convey an event, he uses a combination of talk and mime. This suggests that mime is an adaptation developed to permit the recounting of events in the absence of verbs.

Section 7.3 demonstrates how Di's talk provides an additional resource for construction of Roy's turns. Section 7.3.1, the collaborative turn construction sequence, details how both Di and Roy work together to construct Roy's talk, she by explicitly offering a version of what he means to say in response to his incomplete turn, he by overtly signalling that her talk does indeed convey his intended meaning. Section 7.3.2 reveals that Roy is also able to claim Di's talk as an expression of what he means to say in a prior incomplete turn even though she has not designed her talk as a candidate understanding, but rather as a next turn response. This retrospective claim on Di's talk is made possible by the sequential context inherent in the turn-by-turn progression of talk-in-interaction, whereby each turn is shaped by the context of the prior turn. As a result of this, a next turn response by Di cannot avoid displaying a reading of the meaning of Roy's talk. It is this that he can subsequently 'borrow' to finish his turn. In addition, in section 7.3.3, a sequence of talk which displays problems with mutual understanding reveals a mechanism by which Roy is able to transform a next turn response that displays a misunderstanding of his intended meaning into an adequate expression of what he means to say without overtly drawing attention to the problem. Thus it seems that Roy works to maximise all opportunities to use Di's talk as a resource for conveying his own meaning.

In summary, the analysis reveals distinctive turn construction formats in Roy's talk that are different to the grammatical structures of non-aphasic conversation, characterised in terms of sentences, clauses and phrases (Sacks et al, 1974). When initiating newsworthy talk about a previously unmentioned referential item, Roy tends to produce a turn-initial noun construction. When offering an opinion on prior talk, he tends to produce a turn-initial adjective construction. Finally, when initiating talk about an event, he produces a turn constructed from a combination of talk and mime. Establishment of reference often becomes a joint interactional sequence in its own right in all types of novel turn constructions. All constructions are fundamentally agrammatic, in that they lack a verb to act as a structural anchoring point for the elements that constitute arguments. Occasionally, as seen in Extract 18, Roy may produce a verb, but it is not integrated with the other elements of the turn, and thus its presence is not indicative of sentential grammar. Verb-like elements also appear, courtesy of items such as *I suppose* and *I think*. However, these units have crystallised in English into single fixed units (Helàsvuo, 2001), and their deployment is not indicative of the manipulation of grammar. Despite this thorough lack of sentential grammaticality, turns are built using *systematic* methods which result in *recognisable*

turn formats (Schegloff, 1996a). In addition to making use of his own language, Roy also deploys Di's talk as a resource for constructing turns at talk. This results in as-yet-incomplete constructions being finished by words produced by Di. An analysis of the data reveals that the elements Roy favours for building turns are adjectives, nouns, items such as *oh*, *well*, *now* and *sort of*, often referred to as discourse markers (Schiffrin, 1987), fixed units such as *I suppose*, *I mean*, *I think* and *y'know*, the word *no*, and the connectives *and*, *because* and *but*.

8 Analysis of Roy's test data and comparison with conversation

8.1 INTRODUCTION

Chapter 8 presents an analysis of Roy's performance on PALPA 53, TRIP and the VAST, followed by analysis of narrative data elicited by the Cookie Theft picture, the Dinner Party cartoon strip and the Cinderella story telling. Full transcripts of Roy's test data can be found in Appendix 9, from page 370. Transcription procedures are explained in Chapter 4, section 4.3.4.2, page 72. Sections 8.2 and 8.3 will present an analysis of performance on word- and sentence-level tests and narrative-level tests respectively. The information gained from the test data will then be compared, in section 8.4, with the patterns of language use in conversation discussed in Chapter 7. Finally, a summary of the chapter will be presented in section 8.5. Chapter 8 aims to demonstrate that Roy's ability to produce verbs and build sentential structures is severely impaired, and that when completing the narrative tasks, he adapts, building utterances using the novel constructions of conversation as an alternative to producing sentential structures.

8.2 PERFORMANCE ON WORD- AND SENTENCE-LEVEL TESTS

Roy's performance on the word- and sentence-level tests PALPA 53, TRIP and the VAST is characterised by severe agrammatism, affecting both verb production and the ability to manipulate grammatical structure and morphology. Scores and error patterns for each of these assessments are summarised in Table X:

test	score		errors	
PALPA 53: spoken picture naming	33/40		5	semantic paraphasia
			1	mime
			1	unrelated
TRIP: nouns in isolation	34/35		1	semantic paraphasia
TRIP: nouns in argument structures	18/85		*1-argument structures:*	
			6	correct noun but not agent
			1	omission of agent
			2	deictic agent
			2-argument structures:	
			13	correct noun but not agent
			12	correct noun but not patient
			1	omission of agent
			2	omission of patient
			3-argument structures:	
			9	correct noun but not agent
			1	omission of agent
			10	correct noun but not patient
			10	correct noun but not benefactive
TRIP: verbs in argument structures	12/15	one place verbs	2	omission
			1	unclassifiable
	06/20	two place verbs	1	directional opposite
			2	semantically anomalous
			2	semantically related
			7	omission
			2	comment
	0/10	three place verbs	1	directional opposite
			8	omission
			1	unclassifiable
VAST: (i) verbs as single words	08/40	correct$^\alpha$ verb	3	no response
			19	noun(s)
			1	semantically related/general
			4	verb or noun
			3	response cry
			1	symbolic noise
			1	mime
VAST: (ii) verbs within a sentence	16/40	correct$^\beta$ verb	12	noun(s)
			2	semantically related/general
			1	semantically anomalous/picture?
			3	verb or noun
			5	comment
			1	ADJ
	0/40 well-formed sentence			

α target verbs (7) plus acceptable alternatives (1)
β target verbs (12) plus acceptable alternatives (4)

Table X. Roy's performance on PALPA 53, TRIP and the VAST: summary of scores and error patterns.

This section aims to show that Roy is able, under some test conditions, to produce one-argument structures with an agent and a verb. However, the ability to produce a verb and to assign thematic roles to nouns declines sharply as the number of arguments increases. The analysis will also reveal that Roy is unable to produce any grammatically well-formed utterances. In addition, the section will discuss two unexpected findings with respect to the TRIP and VAST data, one concerning Roy's use of intonation and the other an alternative response strategy whereby Roy avoids producing a sentential structure by commenting instead on the picture and/or his experiences of the event depicted.

8.2.1   word-level tests: PALPA 53 and TRIP nouns in isolation

Roy names 33/40 (83%) items accurately and without help on PALPA subtest 53, spoken picture naming. An error analysis reveals five semantic paraphasias: item 5, 'screwdriver' for *screw*; item 14, 'water' for *glass*; item 18, 'giraffe' for *elephant*; item 26, 'jewish' for *star*; item 30, 'bread' for *toaster*. Roy is able to correct his response to item 18 after the tester repeats his error to him. He is unable to access the target word for item 26 in response to semantic or phonemic cues. A further error, item 38, *knife*, involves the use of mime, but he cannot access the target word when given either semantic or phonemic cues. The final error is made on item 28, *thumb*. Despite showing the tester his thumb, the only word Roy can produce is the unrelated 'chair'. He indicates via gesture that he has this word 'stuck' in his head (*chair* was item 13). When he returns to *thumb* at the end of the test, he produces the semantic error 'hand'. He is finally able to produce the target word when given a sentence to complete: 'a hand has fingers and a...'. It is interesting to note that three correct responses are semantic subordinates to the target general term: 'polar bear' for *bear* (item 2); 'robin' for *bird* (item 22); 'baboon' for *monkey* (item 23). In addition, three responses are self-corrected semantic errors: 'glacier uh mountain' for *mountain* (item 4); '...soup or bowl or something' for *bowl* (item 12); 'er garlic or onion' for *onion* (item 40).

In marked contrast, Roy is able to produce 34/35 or 97% correct target nouns in isolation on the single word section of TRIP. A single error is made on item P2-W6 *children*, where Roy offers the semantically related 'ethnic' (the picture depicts one black child). After a prompt from the tester he produces 'boy and girl'. As per PALPA 53, three responses to TRIP nouns are self-corrected semantic errors: 'uh tea or cup' for *cup* (item P1-W10); 'ah ribbon oh no um um bow um present' for *present* (item P1-W15); 'hinge or eh gate' for *gate* (item P2-W15). Further to this, one correct response

is semantically more specific than the intended target: 'shellfish' for *shell* (item P1-W16). One self-correction reveals sound-level difficulties: 'um tch ah /pɔ/ er ball' for *ball* (item P1-W11).

Both the PALPA 53 and TRIP nouns suggest that Roy's single word naming is affected by semantic-level difficulties. Almost all uncorrected errors are semantic in nature, and those that are self corrected reveal problems with differentiating between close semantic neighbours. In addition, three correct responses to the PALPA 53 task and one correct response to TRIP nouns suggest that subordinate-superordinate distinctions may be blurred. The elevated score achieved for TRIP nouns may reflect test administration procedures, which involve the provision of a response model by the tester in order to maximise the likelihood of each picture eliciting the intended target word (see Appendix 4, page 317, for details). This delayed repetition approach may boost Roy's ability to accurately produce the nouns by priming him. In addition, an informal comparison of the types of items targeted by each task suggests that the TRIP items have greater familiarity and are higher in frequency than those of PALPA 53. This may also boost performance on the TRIP items.

Roy scores only 21% for production of TRIP nouns in argument structures (18/85 nouns scored correct). An error analysis reveals that he does not tend to omit the nouns; omissions account for only 5/67 or 7.5% of errors. Rather, 60/67 or 90% of errors are correct nouns that receive a score of zero because they 'do not assume a thematic role in a sentence response' (Whitworth, 1996: p. 17), either because the *verb* is omitted, or because the noun is not structurally integrated with the verb. Clearly, Roy's ability to assign thematic roles to lexical items in sentences is severely impaired.[33] The production of argument structures will be investigated in detail in section 8.2.2.2 below.

8.2.2 sentence-level tests: TRIP one-, two- and three-argument structures and the VAST subtests (i) and (ii)

8.2.2.1 *ability to produce a verb that describes a pictured event*

On sections of TRIP that target one-, two- and three-argument structures, Roy scores 18/45 or 40% for production of a verb in response to a pictured event. The percentage of errors increases as the argument structure becomes more complex. Thus, for one-place verbs, the error rate is 20% (3 errors in 15 responses), but for two-place verbs it

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[33] Non-aphasic adult controls achieve 95-100% accuracy when assigning thematic roles during this test (Whitworth, 1996).

jumps to 70% (14 errors in 20 responses), and for three-place verbs to 100% (10 errors in 10 responses). Error analysis shows that complete omission of the verb is a major problem: 2/3 errors made on one-argument structures are verb omissions. The rate is 7/14 errors and 8/10 errors for two- and three-argument structures respectively. Examples are as follows:

TRIP P1-S2-26 the woman's lifting the baby	'oh right heh (3.4) ah (4.8) woman, (16.2) (she) (3.3) baby(,) (4.5) (2.0)- *((looks at T who nods))* yeah? [T: yeah]'
TRIP P1-S3-38 the children are showing the bread to the sheep	'(0.6) oh right (17.5) woman an' man, (6.4) ah (4.8) /ʃeː/, (6.6) sheep, [*((T nods))*] (7.0) bread, [*((T nods))*] (18.6) [T: that's fine]'

As these examples show, Roy is often able to produce and order the nouns that would form the arguments, even though there is no verb, and thus, the nouns do not assume a thematic role. The third error at the one-argument level is unclassifiable, as the response is partially unintelligible (item P1-S1-23). For two-argument structures, the remaining seven errors are: one directional opposite, 'pulling' for *chasing* (item P2-S2-32); two semantically anomalous verbs, 'scurrying' for *carrying* (item P1-S2-29) and 'keeping' for *pushing* (item P2-S2-31); two semantically related verbs, 'leading' for *pulling* (item P1-S2-30) and 'taking' for *lifting* (item P2-S2-33); and two responses, where Roy does not attempt the required sentential structure, but instead *comments* on the picture (items P1-S2-34 and P2-S2-28). The remaining errors at a three-argument level are: one directional opposite, 'taking' for *giving* (item P2-S3-37), and one unclassifiable response, where Roy's attempt to describe the picture involves reported speech (P1-S3-36).

Roy spontaneously produces a mime of the event he is trying to name for 8/45, or 18%, of responses to TRIP. On five occasions the mime cues production of a verb, but only two are correct:

TRIP P1-S1-22 the baby's waving	'(1.0) ah (5.2) baby, uh *((claps twice))* (2.5) k- ahh clap hands.'[34]

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[34] This verb was deemed acceptable, as the picture shows a baby with both hands raised.

TRIP P2-S1-26 the sheep's drinking

'hhh uh (0.5) ur (0.6) shee:p, (4.4) °(sheep)° (3.4)...(4.3) (/ʃɪp/) (1.5) °sheep,° (6.3) water. (7.2) (1 syllable) not (1 syllable), (3 syllables) u::m (2.3) water, (30.4) ((mimes lapping, looks at T)) [((T nods))] °slurp, um,° [T: that'll do] slurp? or [T: yeah] yeah? [T: yeah yeah] yeah'

The results suggest that Roy's ability to produce verbs in response to the event pictures of TRIP is mildly impaired for one-argument structures (80% correct), but severely impaired for two- and three-argument structures (30% and zero correct, respectively). The main problem seems to be with verb access in the first instance – 63% of all errors are verb omissions. Although Roy spontaneously mimes the event in 18% of cases, only two correct verbs are produced via this strategy. Qualitative analysis of responses with no verb reveals an ability to access and order the nouns that are required to form the arguments, despite the failure to produce a verb.

On the VAST subtest (i) *verbs as single words*, Roy scores 8/40 (20%) for verb production. On the second subtest, *verbs within a sentence*, he scores 16/40 or 40%. For both subtests of the VAST, a decision was made to score acceptable alternative verbs as correct in addition to target verbs, to give a more accurate reflection of verb access. Of the eight correct verbs produced in subtest (i), seven were target verbs and one was deemed to be an acceptable alternative description of the pictured event that made use of a verb other than the target ('recordin' for *filming*, item (i)22). Of the 16 correct verbs produced in subtest (ii), 12 were target verbs and four were acceptable alternative descriptions of the pictured event. Spontaneous mimes of the event or gestures associated with the event were produced for 11/80 or 14% of items. Only four instances cued a verb, and of these, only two were correct (items (i)3 and (ii)5).

Roy's performance on the VAST, at 20% for subtest (i) and 40% for subtest (ii), reveals an inconsistent level of verb retrieval. It seems that this cannot be attributed to producing a verb in a sentence (subtest (ii)) as opposed to in isolation (subtest (i)), since Roy approaches both subtests in the same way. He tends to produce an isolated verb, or if this is difficult, a noun or nouns (before the tester intervenes with a cue), regardless of whether or not he is instructed to produce a sentence. This distinctive pattern of response is illustrated by the following examples:

VAST (i)38   shaving   'ah (0.3) shavin'.'

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VAST (i)39   scrubbing   '(1.0) ah (0.5) uh tuh (1.4) (wa:t-) (2.5) °oh tuh (3 syllables)° (1.5) brush? (3.8) °u::m tuh° (6.1) bucket? [T: mhm] (1.9) (an-) [T: and she's...*((T mimes))*] (3.2) bru:sh. (2.5) ur (3.0)...[T: an' she's, what's the word that describes what she's doing *((T mimes))*] moppin'.'

The VAST data suggest that (i) Roy's ability to access a verb is severely impaired and variable, and (ii) when he manages to access a verb he makes no attempt to produce it as part of an argument structure. Thus, the requirement to produce a verb in isolation or in a sentence makes no qualitative difference to his performance.

If it is not the complexity of output that provokes such a variable display of skill between the two subtests of the VAST, what other factors could be responsible? Although TRIP data has revealed the number of arguments required by a verb affects Roy's ability to produce it, the VAST items are fairly evenly split between one- and two-argument structures,[35] and so there is no possibility that more complex argument structure causes the 20% reduction in performance on subtest (i). The timing of test administration may be relevant. Roy completed the VAST subtest (i) during the first testing session, followed one week later by subtest (ii), and another week after that by TRIP. Thus, Roy's worst score was achieved on the very first sentence-level test he completed. It is not implausible to suggest that he just became better at responding to the VAST items once he knew what was expected of him, and had some practice.

An informal comparison of the VAST and TRIP scores for verb production is possible if success on the latter test is calculated for one- and two-argument structures only (the VAST does not test three-argument structures). If this is done, TRIP reveals an ability to produce verbs with 51% accuracy, as compared with 20% for subtest (i) of the VAST and 40% for subtest (ii). Thus, performance on TRIP is considerably better than on either subtest of the VAST. This may reflect differing test administration procedures, specifically the provision of a response model by the tester as part of TRIP. The delayed repetition aspect of this test may improve Roy's ability to produce a verb that describes a depicted event, by priming his response.

8.2.2.2 *ability to produce sentential structures*

Data from TRIP permits qualitative analysis of Roy's ability to produce sentential structures with one-, two- and three-place verbs. This reveals that he is able to construct 7/15 or 47% of one-argument structures without difficulty, for example:

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[35] 18 of the 40 items in subtest (i) are one-argument structures, the rest are two-argument structures. The figure for one-argument structures in subtest (ii) is 19/40, with the rest being two-argument structures.

TRIP P2-S1-22 the snake's swimming

'...(1.1) hhhuh (5.8) sna:ke:, [T: mhm]
(2.7) swimmin', [((T nods))]...'

However, he is able to construct only 3/20 or 15% of two-argument structures, for
example:

TRIP P1-S2-25 the girls' kicking the snake

'um right (1.7) girl, (3.4) girl (11.6)
kick, (1.7) snake.'

There are no three-argument structures because Roy does not manage to produce any of
the 10 three-place verbs targeted by the assessment. Those argument structures that he
succeeds in producing demonstrate the characteristic symptoms of agrammatism
discussed in Chapter 2 – omission of indefinite and definite articles and verb tense
morphology, for example the auxiliary *be* in the present progressive tense. Informal
analysis of the grammaticality of responses to TRIP one-, two- and three-argument
structures shows that *none* of the 45 utterances is both structurally and morphologically
well-formed.

In common with many people with agrammatic aphasia, Roy can produce the
progressive *-ing* verb ending (see section 2.2), and does so for 72% of all verbs
produced (whether correct or not). The other 28% of verbs are produced in an
uninflected form (see for example, *kick*, in item P1-S2-25, above). The presence of an
argument structure indicates that these are indeed verbs, rather than nominal forms. It
can be impossible to distinguish between the two when they occur in isolation (Howard,
1985).

For the majority of responses to TRIP, Roy does not manage to produce a
structurally complete utterance. An error analysis (see TRIP performance profile,
Appendix 9, page 388) reveals two main problems – (i) verb omission and (ii)
integration of a verb with its arguments. As was mentioned in section 8.2.2.1 above,
verb omission is common – 2/9 structural errors (22%) made on one-argument
structures are caused by a missing verb, as are 7/17 errors (41%) made on two-argument
structures, and 8/10 errors (80%) made on three-argument structures. Despite the
missing verb, most of these responses do display a structure of sorts. Each two- and
three-argument structure begins with the noun that would be the agent argument if there
was a verb present to assign thematic roles (or if it does not begin with this noun, Roy
self-corrects, see item P2-S2-35). This 'agent' is followed by a noun or nouns to
represent the other required argument(s), in what appears to be a plausible order for the
structure, as the following examples show:

TRIP P1-S3-39 the woman's giving the shell to the baby '(1.2) ah (1.5) woman, (2.5) sh- she, (6.5) shell, (7.5) boy.'

TRIP P2-S3-38 the man's showing the gate to the cow 'ah right (1.6) tuh u:m, (1.9) man, [((T nods))] (3.4) gate, [T: mhm] (17.3) m-, moo cow.'

Both items listed here reveal an interesting pattern of response with respect to intonation, whereby Roy produces non-final nouns in the utterance with continuative intonation (marked with a comma), and the final one with final falling or rising intonation (marked with a full stop or a question mark, respectively). This pattern is seen in all responses to TRIP, regardless of whether or not they are structurally acceptable, and results in the elements of the utterance sounding as if they are packaged together into a single unit, despite the lengthy within-utterance pauses. Intonation in sentence-level tests is discussed in detail in section 8.2.2.3, on page 216.

The second dominant pattern of structural errors occurs when an utterance contains a verb that cannot be integrated successfully with the nouns that represent its arguments. Five out of nine structural errors (56%) made on one-argument structures are of this type, as are 6/17 errors (35%) made on two-argument structures, and 1/10 errors (10%) made on three-argument structures. Examples are as follows:

TRIP P1-S1-19 the pig is jumping '(0.7) oh um (7.3) ah- (2.5) jumping, (3.8) pig.'

TRIP P2-S2-29 the chicken's pulling the snake '...right, uh, (5.4) chick, [T: mhm] (14.8) snake, (14.4) °chick,° ((traces on picture from L to R)) (24.7) pulling.'

TRIP P2-S3-37 the girl's giving the book to the boy 'ah oh right! (1.3) um (7.8) she::, [T: mhm] (6.9) uh (0.3) book, (9.2) takin.'

The data show distinct types of integration error. In four of the 12 errors of this type, the nouns representing the agent and patient arguments are both produced *before* the verb (see items P2-S2-29 and P2-S3-37, above). In a further 2/12 integration errors, the noun representing the agent is placed after the verb (see item P1-S1-19 above). There are four examples of an agent being omitted (and in one case, a patient too), and one reversal of agent and patient (P2-S2-30). The final error is one where the agent is produced but disconnected from the verb and patient by intervening reported speech (P2-S2-32).

In general, Roy's responses to TRIP are formulated *extremely* slowly, with pauses of varying lengths common before each word. His utterances contain pauses that range

from 0.4 to 79.5 seconds in length. Interestingly, such pauses do not interfere with the intonation contour that serves to package elements into a single utterance; it is still possible to discern the existence of a unit composed of a series of words, despite the occurrence of pauses between those words, some of which can be extremely lengthy.

Structural issues can be further explored via analysis of the VAST data. As mentioned in section 8.2.2.1 above, Roy responds to each VAST item either with an isolated verb (24 correct verbs; 4 semantically related or semantically anomalous) or, when a verb proves problematic, by naming objects depicted in the picture (31/80 or 39% of responses). Other response types include response cries, for example, *oh no!* (item (i)11 parachuting) and comments, for example, *oh right pub?* (item (i)40 crawling). See section 8.2.2.4, page 218 for a discussion of comments. He responds to both subtests in this way, despite being instructed to produce isolated verbs for subtest (i) and sentences for subtest (ii). The result is a complete absence of grammar – *none* of the 80 responses to the VAST are structurally or morphologically well-formed utterances. This performance contrasts sharply with the results of TRIP, where Roy shows some ability to produce one- and two-argument structures, albeit with morphological omissions. In addition, on TRIP, Roy is able to produce ordered nouns to represent arguments where a verb is omitted. Responses to VAST items are qualitatively different to those of TRIP – no agent (he/she/man/woman etc.) is produced for any of the 80 VAST items, and the noun(s) named, although clearly associated with the event (and depicted in the picture), are not offered in 'argument order' as in the TRIP data. This can be seen in the examples below:

| VAST (i)8 | ploughing | 'oh right...(0.6) a horse, (0.7) a:nd (0.3) um: (0.4) tuh (1.0) plough. [T: yup] (0.7) plough? [T: yeah so what's he doing, he's...] (2.9) workin, [((T nods))] workin, (5.0) [T: that's fine] yeh? [T: yeah that's fine]...' |
| VAST (ii)21 | patting | 'oh er heh [T: heh heh heh] (0.4) Sam![36] hah heh heh...hhuh dog. [T: yeh] yeah, (1.0) uuuuh [((T mimes))] (.) uuuh (0.6) tuh *((mimes stroking))* (2.3) hand, [((T nods))] (0.4) um (8.9) uh (6.3) (walking?) (3.2) *((mimes patting))* walking (5.1) *((still mimes patting))* ar:m (0.9) um (13.7) *((still mimes))* dog. ...' |

As these examples show, some of the nouns Roy chooses to convey are not 'core' participants (Black and Chiat, 2003) in the scene (see above: *horse*, item (i)8; *hand* and

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[36] Sam is Roy's dog.

arm, item (ii)21), which suggests that deciding what to focus on and give prominence to may be problematic (see Dipper, Black and Bryan, 2005).

In a pattern similar to that noted in the TRIP data, around three quarters (25/35 or 71%) of all spontaneously produced verbs[37] elicited by the VAST are –*ing* forms. A further 3/35 or 9% are uninflected, but are clearly verbs: *shin* (item (ii)2 climbing), *grate* (item (ii)28 grating) and *rip* (item (ii)31 tearing). The remaining 7/35 or 20% could either be a verb or a noun, for example: *hammer* (item (i)19), *cycle* (item (i)21), and *swings* (item (ii)4). Unlike the TRIP –*ing* verbs, those –*ing* forms elicited by the VAST do not have an accompanying argument structure to reinforce their status as verbs. Thus, some could actually represent verbs that have been transformed into nominal forms. These data do not permit a definitive classification of such items as noun or verb.

It is interesting to note that, whereas Roy's responses to TRIP items often begin with a noun with continuative intonation, and end with a noun with final-falling intonation, and thus sound 'packaged' into one complete unit, his responses to the VAST often begin with a noun marked with final falling or rising intonation (see for example, item (ii)21: 'Sam!' and 'dog.'; above), or they begin with a noun or nouns with continuative intonation but the package remains incomplete, as no noun with final-falling intonation is produced. These differing intonation patterns will be discussed in detail in section 8.2.2.3 below.

Once again, the obvious explanation for the difference between the results of the two tests is the 'delayed response' administration procedure of TRIP. It seems that this may boost Roy's ability to produce an argument structure in some of his responses, and reflect aspects of it in others, via ordering and prosodic packaging of nouns, even though the time between hearing the model and making a response is lengthy. Although the mechanism may be one of priming, it is also possible that the provision of a model reinforces to Roy that the TRIP is a task which requires the production of argument structures, with the result that he makes every effort to comply. However, for the VAST, the focus is the event, and this may lead him to treat the task as one of verb naming, not production of an argument structure, resulting in the production of isolated verbs or nouns.

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[37] 24 correct verbs plus 11 incorrect, where the latter is the sum of errors classified as semantically related, semantically anomalous or potentially a verb or noun, see Table X, page 136.

As per TRIP, sentence production on the VAST is slow, and each response contains many intra-utterance pauses of varying lengths. On the VAST, Roy's utterances contain pauses that range from 0.1 to 19.4 seconds in length, as compared with 0.4-79.5 seconds during TRIP. Thus, it seems that the production of an argument structure (TRIP) results in considerably longer pauses than production of a verb (VAST).

8.2.2.3   intonation in sentence-level tests

The TRIP data reveals a distinctive use of intonation, whereby Roy produces the first and middle elements of an utterance with continuative intonation, and the final element with falling intonation. The result is a hearable grouping of the elements into a single unit. This is observed both during responses that contain a verb and those that do not, as the following examples demonstrate (a comma indicates continuative intonation, and a full stop final falling intonation):

TRIP P2-S1-24 the cow's jumping   '...(0.5) heh heh uhhh (6.2) cow::, [((T nods))] (5.7) leapin.'

TRIP P1-S3-39 the woman's giving the shell to the baby '(1.2) ah (1.5) woman, (2.5) sh- she, (6.5) shell, (7.5) boy.'

It is also visible during two responses that display difficulties with the integration of the verb and its arguments, such that the verb is produced at the beginning of the utterance, and then followed by the agent argument:

TRIP P1-S1-19 the pig's jumping   '(0.7) oh um (7.3) ah- (2.5) jumping, (3.8) pig.'

TRIP P1-S1-20 the woman's crying   '(0.6) crying, (2.5) woman.'

Thus, it seems that intonation is superimposed onto the series of words that Roy produces, such that the final word is marked with falling intonation, and all others with continuative intonation. This occurs whether or not the arguments are produced in correct structural order. It is undoubtedly the case that any person completing this test would produce their responses with this same statement-like intonation. The fact that Roy does so too is not remarkable in itself. However, what is striking is the relative *salience* of this intonation pattern in Roy's responses. It seems to come to the fore because of the paucity of grammatical links between words. Furthermore, it seems to provoke a distinctive type of response from the tester, whereby elements with continuative intonation are sometimes receipted with a minimal *mhm* or a nod, but she

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does not respond by receipting or cueing until the element with final intonation has been produced. This is shown in the examples below:

TRIP P1-S2-26 the woman's lifting the baby	'oh right heh (3.4) ah (4.8) woman, (16.2) (she) (3.3) baby(,) (6.5) yeah? [T: yeah so you got the, the 2 people, yeh, an' the woman is...*((mimes))*] (0.8) u::m (5.1) *((lifts arm))* arm. [T: mhm] arm, [T: she's lif-] (1.9) ting [T: lifting the baby] lifting. lifting. lifting.'
TRIP P1-S2-31 the children are washing the boat	'(0.4) (oh no) (0.5) um (2.0) boy and girl, [T. mhm] (6.8) washing, (0.9) [T: mhm] boat. [T: excellent, well done]'

The tester seems to orient to Roy's continuative intonation as a signal that his attempt is not yet complete, and to a final fall or rise as a signal of the end of the response, and a place where receipt or cueing is implicated.

The use of intonation and resulting tester response is somewhat different in the VAST data. A number of responses begin with a noun marked with final intonation, be it falling, as per a statement, or rising, as per a question. This rarely occurs in the data elicited by TRIP. It is very interesting to note that this falling or rising intonation is almost always followed by *immediate* intervention from the tester, as the following examples show:

VAST (i)24	leaping	'(0.8) ehhh heh heh heh °hh (0.4) aaghh!... u::m:: (0.4) water. (0.3) [T: yep an' what's he doing? *((gestures movement over something))*] (4.8) um (3.0) uh- (1.1) (don't know) (0.3) pullin? (0.5) u::m:: (5.7) u::r:: leap? [T: that's a good word, yeah] yeh? [T: yeh, brilliant]'
VAST (ii)34	camping	'(1.0) uh, (0.8) um, a tent? [T: mhm, so he's...what's he doing, what do you do with a tent, you go...] (2.6) uh- (4.0) uh (8.7) uh man? [*((T nods))*] (1.2) or, (0.6) [T: I'm thinking of a word that begins with kuh] (0.9) tent (2 syllables)=[T: he's ca:] (1.0) [T: he's cam:] (0.2) oh eh (0.5) ow, (0.7) campin. [T: yep] campin.'

The examples show the tester receipting the noun (item (i)24, 'water.'; item (ii)34, 'tent?') before immediately prompting for more talk. This suggests that the tester is treating the falling/rising intonation as a signal of the end of Roy's attempt. Confirmation of his effort is supplied before encouragement to produce a verb, either a general prompt 'what's (s)he doing?' or a specific sentence frame cue 's/he's...'. A key characteristic of tester behaviour then, in response to an initial element with final (rise or fall) intonation, is the *immediate* launch of cueing strategies, despite the fact that Roy

has only produced a noun or at most a noun phrase, and thus has clearly not fulfilled the requirements of the test. Compare this with the TRIP, where the tester rarely responds to the first noun, which is produced for the most part with continuative intonation, and if she does so, she merely receipts it and waits for more to come. The fact that the initial noun of a response to the VAST is never an agent may induce the tester to cue immediately; it signals that there is no structure underway. This is not the case for TRIP data because Roy's responses exhibit grammatical progressivity; the initial noun identifiable as the agent projects that the next element of an argument structure is upcoming, and thus the tester waits.

Thus, for Roy, intonation is a resource that can promote differing types of response from the tester, such that continuative intonation will 'hold off' cueing, and final intonation will result in immediate cueing. This use of intonation appears to represent an adaptation to the testing environment.

8.2.2.4 an alternative to standard grammar – commenting

The prior analysis of sentence-level test data has focused on Roy's ability to convey a pictured event using the structures of a standard grammar. Interestingly, the data also reveals that, despite the constraints of the test format, Roy sometimes comments on the event or aspects of the picture rather than, or before, describing the event itself. Such comments shift the focus from completion of the test to interaction between Roy and the tester. An example from the VAST data is presented in Extract 30 below:

Extract 30 Roy VAST (i)25 fishing#2

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1    →  Roy      oh! (0.6) heh (0.7)        ⌈((snoring noise))
                                            ⌊((mimes falling asleep))
2                 ⌈(0.2)              ⌉
                  ⌊((holds pose))     ⌋
3    →  Tester   ⌈mhheh             ⌉     ⌈heh heh heh heh heh °hhhhhhhhh⌉
                  ⌊((R releases pose)) ⌋
        R gaze   ...t------------------------
                                        ----------------------------------------
4    →  Roy                              ⌊heh heh heh heh heh heh heh heh⌋
5    →  Tester   ⌈you're not a fan then  ⌉
                 ------------------------------------------„       ...t--------„
6    →  Roy      ⌊heh °hhhhh °hhhhh      ⌋°hhhhhhhhh wull no, but ur, (0.1) er
7    →           ⌈sort of, (0.5)
                 ⌊((mimes falling asleep))
8       Tester   yeah=
        R gaze   ...t-
                 ------------------„
9    →  Roy      =uh uh now, yeah.
10   →  Tester   fall asleep
```

```
11  →  Roy      yea::h ⌈e- e- e- exac'ly.
12  →  Tester         ⌊°mhuhuh°
13     Roy      (0.6) er (so-), (0.6)
14  →  Tester   so what's he doing?
                        ...t----------------
15     Roy      (2.7) um (1.7) fishi      ⌈n'.
                                          ⌊((T begins to nod))
16     Tester   ⌈(0.1) good
                ⌊((T continues to nod))
       R gaze   --,,
```

In Extract 30, Roy's comment at lines 1 and 2 gives his personal opinion of the pictured event, fishing, by using symbolic noise and mime. The intended meaning seems to be a light-hearted assessment of fishing as boring. The tester is immediately drawn into interaction with him, laughing and responding with talk that suggests that she has taken his comment as a joking negative assessment: 'you're not a fan then' (line 5). In lines 6 and 7, Roy extends his comment. It is interesting to note that both comments are designed to convey an *event*, falling asleep, although not the one required by the test item. The structure of each comment resembles the conversational construction discussed in Chapter 7, section 7.2.3 (see page 172) that functions to recount an event. Thus, each is designed as a combination of talk, in the form of discourse markers, laughter or connectives, and a mime of an event. The tester's gloss, 'fall asleep' (line 10), serves to underline that the function of the constructions is indeed to recount an event. Roy subsequently deploys his characteristic receipt *that's what I meant*, 'e- e- e-exac'ly.' (line 11).[38] It is only then that Roy and the tester reorient themselves to the task at hand, Roy by attempting to continue with the response (line 13), and the tester by prompting for an event verb with 'so what's he doing?' (line 14). By reinstating the task objective in this way, the tester unwittingly makes the task easier for Roy by giving him the agent and a form for the verb: *V-ing*. Roy's response is accurate: '(2.7) um (1.7) fishin'.'. It may be that talking about his opinion of fishing acts as a semantic cue to the verb itself.

This extract shows how Roy's comments result in the tester engaging in interaction with him, taking major rather than minimal turns. In order to shut down the resulting interactive sequence, and move back to the testing process, the tester provides Roy with a cue, which breaks the task down by providing additional information of a structural or semantic nature, although it does not always result in successful production of the verb. Crucially, Roy receives some help *before* he has begun to attempt his

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[38] See Chapter 7, section 7.3, page 136, for a discussion of Roy's use of *exactly*.

description of the event. It is worthy of note that he uses the comment strategy more during the VAST (six examples in VAST (i), seven in VAST (ii)), where data analysis has shown that he accesses less verbs, and fails to produce sentential structures (see section 8.2.2.2), than he does during TRIP (one example, item P2-S2-28), where he receives more structure at the outset of the test as a result of the modelling that is part of the administration procedure. Commenting rather than describing the event may be beneficial for Roy because it masks his difficulty with the task, and it encourages the tester to interact with him. In order to shift the focus back to assessment, the tester produces an utterance, ostensibly to reorient Roy to the task, which can also serve to cue him. Thus, he may receive help with an item *prior* to beginning a response, rather than after he has made an unaided attempt.

8.2.3   summary of performance on word- and sentence-level tests

To summarise, Roy is able to produce nouns in isolation with a performance level of 83% when the test requires him to access and produce the words without support. This figure rises to 97% when the test provides him with a model, even though there is a considerable time delay between the provision of a model and his response. The majority of problems with noun production arise at a semantic level, with Roy making close semantic errors, some of which he is able to notice and correct without help. On occasion he produces subordinate terms where a superordinate would be sufficient. His ability to produce nouns in utterances with a range of thematic roles is only 21% accurate, indicating a severe impairment in assigning arguments to verbs. Roy produces verbs in sentential utterances with 40% accuracy on TRIP. There is a clear effect of number of arguments on the ability to produce verbs, such that 80% of one-argument verbs are correct, compared with only 30% of two-argument verbs and 0% of three-argument verbs. Error analysis reveals that for 63% of responses, a verb is completely absent. Other error types include the production of semantically related verbs, and those that are semantically anomalous with respect to the picture. Roy is able to construct 47% of one-argument structures on TRIP without difficulty, but this figure drops to 15% for two-argument structures and zero for three-argument structures. All argument structures display the types of morphological omissions that are characteristic of agrammatism. Of all verbs produced in response to a picture (whether correct or not), 72% are *–ing* forms. The other 28% are uninflected. The presence of argument structure in the data permits all *V–ing* forms to be distinguished from nominals. Error analysis reveals two main problems with producing argument structures – (i) verb

omission and (ii) integration of a verb with its arguments. Utterances missing a verb do have a 'structure' of sorts – the nouns that represent the necessary arguments are often produced in the correct order for the target construction, despite the absence of the verb.

On the VAST, which targets only one- and two-argument verbs, verb production is scored at 20% and 40% for subtest (i) and subtest (ii) respectively. The recalculated figure for TRIP (i.e. one- and two-argument verbs only) is 51%. Thus, Roy scores less for verb production on the VAST than on TRIP. Scores on VAST are highly inconsistent between the two subtests. This cannot be explained in terms of complexity of items or test administration issues; it may be a practice effect. When completing the VAST, Roy does not attempt to produce verbs in argument structures – 79% of responses that are scored correct for verb production consist solely of a verb, regardless of whether or not Roy has been asked to produce a sentence. Of the verbs elicited (correct and incorrect), 71% are –ing forms, and as a result of the lack of argument structure, are indistinguishable from nominals. A further 9% are uninflected, but clearly identifiable as verbs, for example *shin* for 'climbing' and *grate* for 'grating'. The remaining 20% could either be uninflected verbs or nouns (for example, *hammer*, *cycle* and *massage*). Responses scored incorrect for verb production consist of an isolated noun (*never* the agent), sometimes accompanied by mime and/or another noun and/or an incorrect verb. Thus, there is *no* argument structure visible in the VAST data, unlike TRIP data.

Consideration of response time and intra-utterance pausing reveals that construction of a thematic structure has a huge impact on speed of processing, whereas production of a verb has less impact. Thus, although most responses contain significant numbers of pauses, these range from 0.4 to 79.5 seconds for TRIP, compared with 0.1 to 19.4 seconds for the VAST.

Two interesting forms of interaction with the tester emerge from the sentence-level data. One involves the use of *intonation* as a resource for (i) holding off the tester in order to complete an utterance without help, or for (ii) engaging the tester in order to make the task of responding to a picture an interactive one. Significantly, Roy deploys intonation to engage the tester considerably more during the VAST – the test where he is much less able to access verbs and does not produce any argument structure – than he does during TRIP, where he manages to produce more verbs, some in argument structures. The other form of interaction with the tester consists of Roy offering a *comment* about a pictured event instead of, or before, attempting the response that is expected of him, i.e. a sentential utterance that describes the event. His comment,

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which focuses on some aspect of the picture, or relates his opinion or a related personal experience, engages the tester in interaction, shifting the focus away from testing. Interestingly, such comments are not sentential, rather they resemble the novel constructions of conversation. This adds further weight to the argument that commenting functions to engage the tester in conversation, as opposed to the institutional interaction of assessment. In order to exit from the resulting conversation and go back to the test process, it becomes necessary for the tester to cue Roy. This provides him with extra help before he attempts his response. It is worthy of note that he uses the strategy of commenting more during the VAST than during TRIP. Both interactive behaviours may be beneficial for Roy because they mask his difficulty with tasks, and they also encourage the tester to converse with him, and thus to provide help before he attempts a response to the task.

In conclusion, Roy's performance on sentence-level tests seems to be affected to a significant degree by differing test procedures. At best, on a very structured test with prior modelling of responses, such as TRIP, he demonstrates a mild impairment of verb production for verbs requiring only one argument, but a severe and increasing difficulty with verbs requiring two and three arguments respectively, such that he is unable to produce any three-argument verbs. When he does manage to access a verb, his ability to produce it as part of an argument structure decreases significantly as the number of arguments required by the verb increases. The production of thematic structures, whether successful or not, is achieved at huge cost to speed of processing, with evidence of intra-utterance pauses as long as 79.5 seconds. Despite laboured production, intonation is available as a resource for packaging elements of an utterance into a single unit. At worst, on a test where there is no model for how to respond, such as the VAST, Roy's ability to produce verbs is consistently severely impaired, and for those he does manage to produce, he never attempts an argument structure. Speed of processing is slow, with evidence of intra-utterance pauses as long as 19.5 seconds, but clearly faster for verb access than for production of a thematic structure. Distinctive forms of interaction appear more during the VAST than TRIP, suggesting that these may represent adaptations to the specific difficulties of this test. Test requirements seem relevant. Roy appears to treat the VAST as a task which requires him to produce verbs, not argument structures. As a result, his grammar appears more impaired on the VAST than on TRIP, yet speed of processing is faster.

8.3 PERFORMANCE ON NARRATIVE-LEVEL TESTS

This section will focus on data elicited by the Cookie Theft picture description, the Dinner Party cartoon strip description and the Cinderella story telling. Full transcripts of these data can be found in Appendix 9, from page 390. The analysis of the narratives will take two approaches: (i) a traditional clinical approach that focuses on evaluating standard grammar, and (ii) an interactional approach that aims to uncover constructions similar to those seen in the conversation data, and to investigate forms of interaction between Roy and the tester. The aim of this section is to show that Roy approaches the narrative tests in a very different manner to the sentence-level tests. On the whole, he does not attempt to produce sentential structures at all; instead, he uses the types of constructions seen in conversation. In addition, there are distinctive interactions between Roy and the tester. One aspect of this interaction concerns Roy seeking and receiving from the tester an acknowledgement of his utterance. The second aspect involves establishing reference.

8.3.1 Cookie Theft picture description

The Cookie theft picture description data bears little resemblance to that of the sentence-level tests. Roy does not attempt any sentential structures, and he only produces one verb. Instead, he builds utterances that resemble the novel constructions of conversation observed in Chapter 7, section 7.2: the noun-initial construction (section 7.2.1), the adjective-initial construction (section 7.2.2) and the construction built of co-occurring talk and mime (section 7.2.3). A full transcript of the Cookie Theft data can be found in Appendix 9, page 390.

The sole verb produced is in the utterance 'u::m:: (0.8) and uh (5.9) (falls) over.' (line 45). As per his performance on the VAST, Roy produces the verb as an isolated element devoid of an argument structure – there is no noun to take the role of Actor. The verb is followed by a particle that has a close semantic link to it. Thus, the verb expresses the movement, *fall*, and the particle the direction of movement, *over*. None of Roy's utterance constructions resemble sentential structures, or even attempts at sentences. He does produce *I don't know* (lines 17 and 21), but as discussed in section 7.2.2, this phrase is one that in English has become crystallised into a single fixed unit (Helasvuo, 2001), and thus is not evidence of the manipulation of sentential grammar.

Instead of attempting sentential structures, Roy builds constructions that resemble those of conversation. Examples of noun-initial constructions are shown in Table XI below:

transcript line number	transcript#6
22-24	(1.7) cu(.)ps, (1.5) two. (1.9) and, (0.2) er (0.3) coffee or tea, (0.2) or something, (1.4)
24-25	(1.2) window, (0.6) u:::m (0.7) open, (0.2)

Table XI. Noun-initial constructions produced by Roy during the Cookie Theft picture description.

The construction '...cup(.)s, (1.5) two.' (line 22), begins with the introduction of a new referring expression, *cups*. The intonation is continuative, thus signalling more is to come. This is followed by a comment, conveyed by the number *two*. Roy then extends the utterance, adding a second comment about the noun by constructing a list: '...and, (0.2) er (0.3) coffee or tea, (0.2) or something,' (lines 23-24). Here the list contains two items followed by a generalised list completer (Jefferson, 1990) which locates the first two as members of a class of drinks. Thus, Roy's second comment is designed to invoke the class of drinks as a whole. There is no verb, and thus no grammatical links exist between the elements of the first or second comment. However, the elements are successfully packaged together via sequential, pragmatic and prosodic links. The tester nods during the pause after the second comment, but not after *cups two* (line 22), which suggests that she is treating the noun and the two comments as a single cohesive unit. The second noun-initial construction is built using similar resources. It is interesting to note that both noun-initial constructions function to introduce referential items that are completely new to the narrative at that point. Analysis of Roy's conversation has revealed that the function of the novel noun-initial construction is to initiate talk about a new referential item. That function may be the reason for the use of the construction for these narrative utterances.

In addition, there are several utterances that convey a comment, but no referring expression is produced, as Table XII reveals:

transcript line number	transcript#6
25-26	(1.0) u::::r:: (1.6) daytime, (1.1)
26-27	u::m:: (7.3) sun(?) (1.4)
46-47	and uh- (1.4) °und now,° (0.5) com(.)motion. (.) °hh

Table XII. Comment-only structures produced by Roy during the Cookie Theft picture description.

These utterances seem to achieve their comment-like status via the visual context of the picture. The words *daytime*, *sun* and *commotion* all function as general comments about the scene, their generality reflected by the fact that it is possible to flesh out the grammar of all three using a general pronoun, but not a reference to person – consider *it is daytime, there is sun*[39] and *there is a commotion*.

Three utterances that resemble the adjective-initial construction seen in conversation are shown in Table XIII, below:

transcript line number	transcript#6
10-13	and, (0.6) uh u::::r (2.1) uh- (1.9) (.) d(r)ay(.)dreaming.
18-20	(1.6) u::::r: (0.6) °tuh° perhaps (1.0) worried? (0.8)
42	u::m: (1.2) and I expect, (1.2) e:::r: (0.7) daydreaming, ...

Table XIII. Adjective-initial constructions produced by Roy during the Cookie Theft picture description.

The adjectives *daydreaming* (line 13) and *worried* (line 19) are assessments of the woman, and function as such via their sequential placement after a prior utterance that conveys what she is doing. The second use of *daydreaming*, in line 42, conveys its focus slightly differently, in that Roy is pointing to the woman in the picture as he delivers the assessment term. This non-verbal contextualisation is made possible by the picture being visible to both parties. In Roy's conversation, the function of adjective-initial constructions is to address the meaning of Di's prior talk by delivering an assessment that conveys his opinion. This is often followed by an explanation of the opinion, linked to the assessment via the connective *because*. Although the Cookie Theft utterances begin with an adjective, they have a somewhat different function.

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[39] *sun* does not appear to refer to an object; the sun is not pictured. Rather it seems to be a one-word comment about the state of the weather – the mother and children are wearing summer clothes. It is not clear whether Roy delivers this item with questioning intonation, but the video conveys a sense that he is unsure, and more generally that he is running out of things to say about this part of the picture (he moves on to consider another part immediately afterwards – see gloss of line 29).

They are not designed to give an opinion on interactant talk, but rather to assess persons depicted in the picture. As a result there is no *because* expansion, since this is motivated by the opinion-giving function of the assessment in conversation.

The final group of utterances in the Cookie Theft data that resemble conversational constructions are talk and mime constructions. These are shown in Table XIV, below:

transcript line number	transcript#6
08-09	um: (2.8) (/wə/) (0.5) e::r (1.0) tuh a:ch (3.8) plate, ⌈(3.0) ⌉ ⌊*((enacts the woman wiping the plate))* ⌋
32	(2.0) ah:: ⌈(0.6) shoosh (0.3) ⌉ ⌊*((raises index finger to lips))* ⌋
36-39	(6.7) ⌈(1.3) u::h ⌈(1.0) whoops ⌊*((raises left arm in imitation of boy))* ⌊*((mimes overbalancing...))*
42-43	(0.1) and then ⌈(.) HHHUUHH! ahhhehhh ⌉ ⌊*((raises arm above head and drops again))*⌋

Table XIV. Talk and mime constructions produced by Roy during the Cookie Theft picture description.

As in conversation, these constructions function to relate an event conveyed via mime – there are no verbs. In conversation, nouns are sometimes introduced verbally to such constructions, and this is visible in the example at lines 08-09, where Roy says *plate* before enacting the woman drying a plate. It is interesting to note that the noun here is clearly not synonymous with the *Actor* of the event; the woman is not mentioned. By altering his pose and gazing to the middle distance before beginning to mime (see gloss of line 09 in full transcript), Roy signals a change from being himself to 'being the woman', and thus he, as her, becomes the Actor.

The other three examples in Table XIV show the aforementioned tendency for the noun representing the Actor (or Theme) to be omitted; in fact there are no nouns whatsoever in these constructions. Thus, at line 32, he does not verbalise the noun *girl*, rather he produces the response cry (Goffman, 1981; cited in Goodwin, 1996) *shoosh*, conveying the girl's reaction. The noun *girl* is not explicitly recoverable from prior context – the previous referring expression was *cookie jar* (line 30) – but it is obvious

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from Roy's raised finger and choice of response cry that the girl is the Theme of the event he is conveying. The other two talk and mime constructions are also designed with a mime accompanied by a response cry.

During the Cookie Theft narrative, Roy makes use of the fixed units *I don't know* (lines 17 and 21) and *I expect* (line 42), the discourse markers *then* (line 43), *now* (line 46) and *perhaps* (line 19), and the connectives *and* (lines 10, 23, 34, 42, 43, 45 and 46), *or* (lines 21, 23 and 24) and *so* (line 17). These types of elements are common in conversation but only occur in sentence-level tests if Roy produces a comment as an alternative to a sentential structure (see section 8.2.2.4).

An interactional sequence, whereby Roy seeks and receives from the tester an acknowledgement of his utterance, is also visible in the Cookie Theft data. All but four of Roy's constructions are jointly agreed upon during a three-element sequence: (1) a response to the picture, (2) a pause, and (3) an acknowledgement from the tester, as illustrated in Extract 31, below:

Extract 31 Roy June00 cookie theft#6.08

```
08          Roy      um: (2.8)        ⌈(one) (0.5) e::r (1.0) tuh a:ch (3.8) ⌈plate,                          ⌉
                                      ⌊((points above page..........................))  ⌊((circular motion with finger))  ⌋
        →                                                                                    ...t-,,
09      →            ⌈(2.2)                                                         ⌈(0.8)                     ⌉
        →            ⌊((sits up, gazes to middle distance, then enacts the woman wiping the plate...  ⌊((T nods once))...))  ⌋
10                   and,   ⌈ (0.6) uh                      ⌉ u::     ⌈::r
                            ⌊((gazes to middle distance))   ⌋          ⌊((touches picture))
11                   ⌈(0.3)                          (1 . 0)   (0.8) uh-⌉
                     ⌊((traces finger over picture...........................))⌋
        →            ...t--,,
12                   (0 . 9)  ⌈ (0.4)                       ⌉⌈(0.6)
                             ⌊((gazes to middle distance))  ⌋⌊((looks down at picture, repetitive hand mmts))
        →            ...t-----,,            ...t---------
13      →            (.) d(r)ay(.)       dreaming.
14      →   Tester   ⌈ye    ⌈ah
        →            ⌊((nods.........
        →            ---------------------------------------------------------------------------------,,
15          Roy      |eh HUH HEH HEH HEH HEH heh heh⌉huh        ⌈°hhuhhh⌉huhhh=
        →            ⌊...T nods.........................................))⌋
16      →   Tester                                               ⌊exactly ⌋
```

In this extract, Roy produces a talk and mime construction over lines 08 to 09, and then makes eye contact with the tester, whilst continuing his mime of wiping a plate (see gaze transcript above line 09, and gloss beneath it). The mutual gaze continues for 0.8 seconds, during which the tester acknowledges the utterance by nodding once. Upon receipt of the nod, Roy ends his mime and looks back towards the picture, in order to

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continue his description. Thus, he treats the tester's acknowledgement as an indication that the construction has successfully conveyed a description of part of the picture. He begins the next (adjective-initial) construction with the connective *and* (line 10), but then stalls, producing a series of both filled and unfilled pauses (see lines 10-12). Somewhere in the middle of this difficulty he looks up from the picture to make eye contact with the tester, possibly to seek help from her (see gaze transcript of line 12). She does not respond. Roy then looks to the middle distance, as if searching for a word, and back down to the picture, before finally producing *daydreaming* (line 13). He makes eye contact with the tester briefly during the first syllable of this word and then looks away momentarily, before re-establishing eye contact during the second syllable, which he delivers with final falling intonation. The tester responds immediately, acknowledging the utterance with *yeah* (line 14), whilst nodding. Roy then laughs, maintaining eye contact for some seconds before looking back down at the picture once more (see gaze transcript above line 15). Thus, again he treats the acknowledgement as a sign that the construction forms an acceptable part of the narrative.

Extract 31 shows Roy treating the production of a complete utterance that conveys a description of the picture as a matter to be settled before he continues the task. The pausing and eye contact subsequent to a construction suggest that Roy is treating it as potentially problematic and that he is inviting the tester to signal understanding or, if necessary, to initiate clarification. In this way constructing an utterance during the Cookie Theft narrative task becomes an interactional sequence (Marlaire and Maynard, 1990). An analysis of the narrative reveals that for each construction produced, Roy demonstrates an orientation to this interactional sequence, whereby he either seeks acknowledgement or delays it if his construction is to be extended.

Finally, it is interesting to consider the length and frequency of pauses in the Cookie theft narrative data. There is considerable pausing throughout. The longest pre-utterance pause is 9.5 seconds in duration (see lines 35-37). Intra-utterance pauses range in length from 0.1 to 5.9 seconds, the latter occurring before Roy's production of the only verb in the narrative *falls over* (see line 45). It is common to see pauses preceding each element of an utterance, except for those built from fixed units.

8.3.2   Dinner Party cartoon strip description

In some respects, the Dinner Party cartoon strip description is comparable with that of the Cookie theft picture description, in that Roy attempts just one sentential structure, and produces only four verbs, tending instead to build utterances that resemble the novel

constructions of conversation. In addition, he also makes use of response cries to convey the emotions of the characters. However, the Dinner Party data also exhibits a characteristic that is not present in the Cookie Theft data. Roy produces talk devoted to cataloguing the individual objects he can see without commenting on them, or describing the events to which they contribute. In other words, there are points at which he treats the task as one of naming, and not telling a story. As per the Cookie Theft data, Roy seeks and receives acknowledgement from the tester of the adequacy of his utterances, but the sequence is less prevalent. In addition, another striking form of interaction emerges, whereby he and the tester jointly establish reference. This is not seen in the Cookie Theft data. Each of these findings will be discussed in turn. A transcript of the data can be found in Appendix 9 (page 393).

The lone sentential structure that Roy produces can be seen at lines 05-06: '...u:::m (0.5) °tuh a:::h° (1.5) <u>man</u>, (1.2) u:::r (0.3) washin'=up(?)'. Although this appears to be a one-argument structure, *washing up* could actually represent a verb that has become a nominal form (Howard, 1985). Thus, another possible analysis might be that Roy is not manipulating sentential grammar, but rather producing a noun, *man*, plus a nominalised verb form, *washing up*, as a comment. It is not possible to distinguish between these two analytical readings of the utterance. What is important is that Roy produces a construction that is 'hearable' (by the tester at the time, and by the analyst after the fact) as a sentence, the sense of which and appropriacy for the task is acknowledged by a nod from the tester (see gloss of line 05). Although the structure is correct with reference to a sentence grammar, and the verb is marked for present progressive tense with the *-ing* morpheme, the auxiliary verb is omitted, and thus the utterance is not grammatically well-formed. The utterance form resembles the one-argument structures elicited by TRIP (see section 8.2.2.2 above).

Although there is only one sentential structure, there are three grammatical units in Roy's narrative that are formed from the combination of an element plus a noun, the ordering of which suggests that they are subsentential phrase structures. These units are: '... lar/ʒ/e, (0.4) /dɹ/out.' (line 09, the target is *large trout*), 'four people (.)' (line 14) and '...black, (2.6) tie.' (line 34). The first phrase forms part of the comment in a noun-initial construction, and is linked to the prior element of the comment via the connective *and*. The complete construction is '°u:::::r-° (1.7) °a:::h° (0.5) tuh (1.3) wi::fe, (2.0) u::hm (1.0) sauces an' thi:ngs, (0.1) and u:h tuh uh- (0.4) lar/ʒ/e, (0.4) /dɹ/out.' (lines 07-09). The full utterance is examined further below (see Table XV,

page 231). The other phrases, however, are produced as isolated structures, after which Roy moves on to talk about something else, rather than saying more about *four people* or the *black tie*. The manipulation of phrasal syntactic structure observed here does not occur in the Cookie theft data.

Roy produces three verbs in addition to *washing up*, but these occur in isolation, as they do during the Cookie Theft and VAST data. The verbs are: *phone up* (line 02), *crying* (line 77) and *sit down* (line 85). All are one-argument verbs that convey an event rather than a state, but none is produced with a noun to take the role of Actor; there is no argument structure. As during the Cookie Theft narrative, it falls to the jointly-observed pictures to disambiguate the Actor of the event. *Crying*, as *washing up*, is possibly a nominal form, rather than a verb. It is worthy of note that three of the four verbs elicited by the Dinner Party cartoon strip are followed by particles, as was the verb elicited by the Cookie Theft picture (*falls over*, see prior section). The elements of this package either have individual but closely linked meanings, such as in *sit down*, or together have a meaning that is not the sum of its parts, as in the more idiomatic *washing up* and *phone up*.

Fixed units appear in the Dinner Party narrative, as in the Cookie Theft data, giving the impression of grammatical structure without the manipulation of grammar. These include *y'know* (line 24), *I s'pose* (line 72) and *I thought* (line 89). In addition, on three occasions, Roy deploys an item that is unique to the Dinner Party data: '...(u)z=oright.' (line 75); '.../ıs/=oright.' (line 83); '...>/ıs/=oright.<' (line 86). The element, clearly hearable as *it's alright*, although ostensibly a sentential grammatical structure, appears to be similar to elements described by Helasvuo (2001), which have crystallised into a single fixed unit, or discourse particle, through continual use in the same form. Each of the three separate productions displays phonological reduction, a commonly reported feature of discourse particles (Schiffrin, 1987; Couper-Kuhlen, 1996). Each also runs off prosodically as one unit, and not as separate words, which also suggests that, for Roy, *is alright* has become a single fixed unit of talk, rather than an utterance that is generated by manipulating grammar.

Although one utterance appears fully sentential ('man, (1.2) u:::r (0.3) washin'=up(?)'), the rest resemble the constructions of conversation. Examples of noun-initial constructions are shown in Table XV, below:

transcript line number	transcript#3
07-09	°u:::::r-° (1.7) °a:::h° (0.5) tuh (1.3) wi::fe, (2.0) u::hm (1.0) sauces an' thi:ngs, (0.1) and u:h tuh uh- (0.4) lar/ʒ/e, (0.4) /dɹ/out. (0.2)
12-13	(0.4) °u::hum° (1.1) °tuh° (0.6) wi::ne, (2.7) a:::h (1.3) °tuh° (2.0) °a::h° (0.4) red an' white. (1.8)
15-18	(1.7) °tuh° (1.5) °a::h° (0.8) bedroom, (2.3) °a::::h° (1.3) hu:::m (0.6) tuh (1.0) woman, (1.2) °dr-° (1.4) dress, (0.9) black.
60-62	a:::::h (0.7) °hhh (1.5) u::::m (3.0) a::::h (0.9) °tuh u:::r° (1.5) tuh (4.4) /də/=du:r dress, (0.8) u:::::m (0.4) °u:::::h° black.
80-82	(0.2) ur (0.8) a:::h:: (4.0) chip and chu-=/fɪpz/, (1.2) u:::::h (2.4) four. (1.7)

Table XV. Noun-initial constructions produced by Roy during the Dinner Party cartoon strip description.

The construction at lines 07-09 introduces a new referential item to the narrative; the noun *wife*. This is produced with continuative intonation to indicate that there is more to come. After a series of filled and unfilled pauses, the comment '...sauces an' thi:ngs,...' is delivered, also with continuative intonation, and then expanded via the connective *and* to convey the additional '...lar/ʒ/e, (0.4) /dɹ/out.'. Although there is no verb to act as a structural anchor, the elements are successfully packaged into a single utterance via sequential, pragmatic and prosodic means. Coming as it does after a description of what the man in picture two is doing, the construction clearly conveys the wife's actions as related to cooking (she is stirring a saucepan on the cooker, and there is a large fish on the table behind her). The other noun-initial constructions also lack a verb, but are successfully packaged together into a single utterance via sequential, pragmatic and prosodic links.

It is interesting to note that four of the five constructions function to introduce referential items that are completely new to the narrative at the point at which Roy mentions them – *wife, wine, bedroom, woman* and *dress*, and *fish and chips*. Analysis of Roy's conversation has revealed that the function of the novel noun-initial construction is to initiate talk about a new referential item. That function may be the reason for the use of the majority of examples of the construction during this narrative task.

Two utterances that resemble the adjective-initial construction seen in conversation are shown in Table XVI, below:

transcript line number	transcript#3
32-33	(0.7) u- u::::m (0.9) tuh (0.4) a:::h- (1.9) dark, ⌈(2.2) per°s'n.° (1.8) ⌉ ⌊((points to the male guest then the hostess (both in black) three times each)) ⌋
62-63	ur (0.2) whi ⌈te, (.) (sorduv) (y'know). (1.5) ⌉ ⌊((brings hand up to head and gestures shape of woman's hair)) ⌋

Table XVI. Adjective-initial constructions produced by Roy during the Dinner Party cartoon strip description.

The adjective *dark* (line 32) is contextualised by co-occurring pointing to the male guest and the hostess, who are wearing black in picture five, which shows the hosts greeting their dinner guests. Thus, the adjective seems to function as an assessment of the clothing of these characters. It is produced with continuative intonation which suggests that Roy will extend his talk further. However, unlike in conversation where an extension to an adjective-initial construction conveys a reason for the assessment, and is introduced by the connective *because*, here what follows is a lone noun, *person*. This is produced with final falling intonation, signalling the end of the utterance, although the pointing continues for another 1.8 seconds (line 33). It is unusual to see a noun produced after an adjective in Roy's talk. Given that, when the adjective is delivered, the only indication of the person referred to is non-verbal, it may be the case that Roy adds a verbal referring expression in response to a preference for establishing reference verbally where this is possible. Interestingly, his choice of referring expression does not disambiguate for the tester which of the four persons in the picture is being assessed, it merely indicates more about *what* is being assessed – a person rather than an inanimate object, or the scene as a whole. The assessable of *white* is conveyed non-verbally via gesture in the second example.

As was suggested for the Cookie Theft data, no *because* expansion occurs because this is motivated by the opinion-giving function of the adjective-initial construction in conversation. Clearly, these adjectives are very different to those seen in the Cookie Theft data, and indeed, in conversation. They convey physical attributes, colours, rather than the mental or emotional states of characters (*worried, daydreaming*, Cookie Theft, lines 13 and 19, respectively) or Roy's own personal opinions (*amazing, different, interesting, special*, conversation, Extract 20 line 7, Extract 20 line 11, Extract 21 line 6 and Extract 21 line 9, respectively). State-like assessments do occur in the Dinner Party narrative, but they are not conveyed using adjectives. One option Roy exercises is to produce his opinions using response cries. For example, on the disappearance of the

fish, he says *uh oh* (see line 66 of main transcript), and his opinion on the host's tucked-in tie is conveyed via *oh* and *awh* (see lines 36 and 52 of main transcript, respectively). In addition, on three occasions he assesses a situation using the fixed unit, *is alright* (lines 75, 83 and 86).

Surprisingly, there is only one example of Roy using a talk and mime construction to convey events in the Dinner Party story. This contrasts markedly with the Cookie Theft data, where there are four such constructions. The lone example is: 'u::::m (1.6) u:::m tuh (0.8) six, (0.8) oh NO!' (line 64 of main transcript), where, after locating picture 6 as his focus, he produces a response cry followed by a mime where he puts a hand over his mouth and widens his eyes to portray shock (see gloss of line 64). In this way, he concentrates not on verbalising the event – the disappearance of the fish – but on conveying the human reaction to this. Since the picture is clearly designed to make salient the shocked looks on the faces of the characters, and, given that both Roy and the tester have sight of this, a talk and mime construction is a successful medium for getting across this part of the story. The construction is built in identical fashion to one that occurs in the Cookie Theft data: 'ah:: (0.6) shoosh…' (line 32), where a response cry also accompanies a mime of the depicted pose of a character.

Although Roy does make further use of gesture and mime in the Dinner Party narrative, he does so to describe *states*, for example the host having his tie tucked into his trousers (lines 36-57) and also to locate *referential items*, as discussed with respect to the adjective-initial constructions above. He does not convey any other *events* using this construction. If the use of mime in conversation does indeed represent an adaptation to conveying events without verbs, as proposed in Chapter 7, section 7.2.3, the lack of such talk and mime constructions in the Dinner Party data may be linked to the presence of the *four* verbs discussed above. Compared with all other data sets, this figure represents a relatively high concentration of verbs.[40] It may be that Roy only deploys one talk and mime construction because he manages to produce verbs to describe the events of four of the eight pictures.

Although the production of four verbs is quite a success, it is certainly not the case that he conveys all the events that are relevant to the story. For example, he does not produce verbs for the key events of setting the table, getting dressed up, greeting the guests or running to/from the fish and chip shop. What he does instead is to (i) describe

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[40] The Dinner Party narrative is 6 minutes 46 seconds long. The Cookie Theft narrative, at 2 minutes 43 seconds, has only one verb, and the Cinderella story telling, at 10 minutes 21 seconds, has three. The conversation between Roy and Di, which is 23 minutes and 09 seconds long, contains three verbs.

the people and/or objects pictured, and/or (ii) convey via direct reported speech the words of the characters involved in the events. Thus, he often spends time cataloguing the individual objects he can see without then commenting on these or describing the events to which they contribute. These isolated nouns are listed in Table XVII, below:

transcript line number	transcript#3
14	(2.7) four people(.) (6.4) trout. (1.2)
18-21	tuh u:::m (1.6) ea:rri:ngs. (2.3) °a:::h tuh° (2.3) °a::h° (1.6) tie. (1.5) u:::h (1.3) tuh (2.5) (u-) jacket. (0.3)
21	(1.2) tuh (1.0) uh (6.8) roses. (1.5)
35	(5.4) °u:::::a::h° (8.4) a::h (.) sui-=er (0.8) jacket.
82	(1.7) tuh and (0.4) plates(,) (0.8)

Table XVII. Isolated nouns produced by Roy during the Dinner Party cartoon strip description.

As the examples show, each is a noun produced, for the most part, with final falling intonation, and thus appears to be delivered simply to name an object; there is no prosodic suggestion of more talk to come. It seems then, that there are points at which Roy treats the task as one of naming, rather than story telling, and therefore does not engage in describing events.

The use of direct reported speech to convey the words of the characters involved in certain events occurs twice. Both examples are contained in Extract 32, below:

Extract 32 Roy June00 dinner party#3.75

75	Roy	⌈least (u)z=o ⌉⌈right. (0.5) so, (0.4) ⌉⌈um (1.3) tuh
		L*((holds up hand, palm facing T))*⌋L*((T nods................))* ⌋L*((finger hovers over picture 7...*
76	→	(0.9) ua::r (0.7) quick, I know. (2.0) °a:nd° (1.8) {oo::h,-} (0.6)
	→	*{falsetto}*
		...t-----------,, · ...t-,,
77	→	eh ⌈(0.4) cry:: ⌈i::ng, und, (0.5) e::r (3.7) ⌉n↑e↓ver mind. ehhh
		L*((holds hand out...* L*((T nods.......................))* ⌋
78		⌈heh heh
79	Tester	Lhm hehm

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In this extract, Roy conveys the characters' reaction to events depicted in picture 7, rather than the events themselves. In this picture, two events are shown – the host running out of the door, and the hostess crying and being comforted by the female guest. Roy's description conveys these events via direct reported speech and a response cry. Thus the host is reported as saying: '...quick, I know.' (line 76), with no attempt made to verbalise the event of running out of the door. Following this, Roy produces the response cry 'oo::h,-' (line 76), with falsetto voice to identify the hostess as the originator, but interestingly does then verbalise the event by producing the verb *crying* (line 77). Finally in this sequence, he produces the prosodically marked *never mind* (line 77) as the words of the female guest to the hostess, again making no attempt to verbalise the event of comforting. The use of direct reported speech succeeds in conveying the events in question because it indicates that Roy is enacting them. This makes a verbal description of the event redundant. The joint attention of both Roy and the tester to the pictures boosts the success of this technique.

Finally, it is worth highlighting several other utterances produced within this narrative for their similarity to conversational constructions. The constructions, 'st↑ill, I /sp↑o↓uz/, (0.3) er wi:ne, an' things, eh HEH heh' (line 72); 'acshully I thought, (0.3) dog, but >no,<...' (line 89); 'sit dow:::n, (0.3) and ur (3.2) chips und, (.) fish, und, (0.6) >/ɪs/=oright.<' (lines 85-86) are built in a systematic way from elements that are identical to those favoured in conversation – discourse markers, fixed units, connectives and the word *no* (see section 7.4, page 201, for a summary of turn construction in conversation).

The interactional sequence that is common in the Cookie Theft data, whereby Roy seeks and receives from the tester an acknowledgement of his utterance, via the three-element sequence (1) a response to the picture, (2) a pause, and (3) an acknowledgement from the tester, is also visible in the Dinner Party data, but to a lesser extent. Extract 33 provides an illustration:

Extract 33 Roy June00 dinner party#3.05

```
05       Roy    ⌈two. (1.1)               ⌈(0.5)  ⌉u:::m (0.5) °tuh a:::h°
                ⌊((puts finger on 2nd picture...))  ⌊((T nods))⌋ ...............................))
         →                                ...t--------,,
06       →      ⌈(1.5) man, (1.2) u:::r (0.3) washin'=u       ⌈p(?)  mheh (1.0) ⌉
                ⌊((moves pointing finger to hover above 2nd picture..............................
         →                                             ⌊((T nods............))  ⌋
```

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In this extract, Roy delivers '...<u>man</u>, (1.2) u:::r (0.3) washin'=up(?)...', making eye contact with the tester at the point at which the particle following the verb is produced (see gaze transcript above line 06). He maintains this gaze for long enough to see the tester begin to nod in acknowledgement (see gloss of line 06), and then looks back down at the picture, laughing. Thus, he treats the tester's acknowledgement as an indication that the construction has successfully conveyed a description of part of the picture. This sequence is not nearly as common as in the Cookie Theft data; Roy fails to make eye contact after finishing most of his utterances during the Dinner Party narrative, regardless of their status. This suggests that he is not treating so many of his utterances as potentially problematic such that he needs to invite the tester to signal understanding or initiate clarification.

This is not to suggest, however, that Roy fails to signal trouble with his utterances. A striking interactional sequence concerned with problematic reference emerges from the data, whereby Roy and the tester jointly engage in work to establish reference before Roy continues with his description. Two examples of this can be seen in Extract 34, below:

Extract 34 Roy June00 dinner party#3.23

```
        →                                          ...t-------------„
23      →   Roy     °u:::m° (0.4) °tuh° (1.4) a::h: (1.5) ⌈(1.6) (uh-) (0.9)
                                                          ⌊((raises hand to neck and waves about...

        →                                          ...t------------------------„
24      →           ⌈(lady)- um teh (0.6)   ⌉ ⌈(friend) or      ⌉     something >y'know< (0.8)
                    ⌊((gazes to middle distance))⌋  ⌊((looks at picture))  ⌋ ...waves hand about...................))
25      →           a::::h (3.6)      ⌈(3.7)              ⌉⌈(4.8)
                                      ⌊((points above picture 5))    ⌋⌊((puts finger on picture...
26      →           ⌈necklace::, (0.6) and (0.5) u::r   ⌈(1.1) tuh (0.9)          ⌈(1.2)
                    ⌊...finger on picture......           ⌊((wiggles pointing finger.........  ⌊((gaze to m. distance..
27      →           (/bɔɪ/-  ⌈no. (8.3)                               ⌉
                             ⌊((looks down at picture...still wiggling finger))   ⌋
28      →           ⌈(4.1)                                            ⌉
        →           ⌊((makes small circular shape with index finger and thumb, looks at it))  ⌋
        →                ...t---------------------------------------------------„
29      →           ⌈(0.7)    brooch(?)                      ⌉⌈(0.2)
        →           ⌊((raises index finger to his neck and traces circular outline))   ⌋⌊((T nods...R's hand at neck...
30      →   Tester  m   ⌈hm
31      →               | brooch. (1.2)                              ⌉ >brooch.<
        →               ⌊...hand still at neck, adjusts shirt, puts hand down,...T nods))  ⌋
32                  ⌈(0.7) °u- u:::m° (0.9) tuh (0.4) a:::h- (1.9) ⌈dark,        ⌉
                    ⌊((places finger back on picture 5...            ⌊((taps male guest))  ⌋
```

At line 23 Roy begins an utterance that runs into extreme difficulty before it has even begun. He produces a series of filled and unfilled pauses, after which he raises a hand

to his neck and waves it around whilst making eye contact with the tester (see gaze transcript above line 23, and gloss below it). The redirection of gaze may represent a request for help, but the tester does not respond. Subsequently, Roy shifts his gaze to the middle distance, producing what sounds like the noun *lady* (line 24), although as the transcript suggests, the word is not entirely clear. He cuts the noun short, and immediately launches a repair, producing fillers followed by a pause of 0.6 seconds. After this, he looks down at the picture again, and produces a second noun, *friend*, also unclear, before qualifying it with *or something y'know*, and once again initiating eye contact with the tester (see gaze transcript above line 24). Yet again, the tester makes no response, and so, after 0.8 seconds, Roy moves on to produce another element. This is a new noun, *necklace* (line 26), and Roy signals his intention to extend the construction further by producing the connective *and*. However, it takes him a considerable time to produce anything more. After more filled and unfilled pauses, and turn-holding gestures, during which he gazes to the middle distance (see gloss of line 26), suggesting that he is searching for a word (Laakso and Klippi, 1999), he produces and then overtly rejects '/bɔɪ/-' (line 27). At this point he looks down once more at the picture for an extremely long time – 8.3 seconds (line 27) – whilst wiggling his finger to indicate that he has more to say. This is followed by a gesture at line 28 designed to convey roundness, which Roy stares at for 4.1 seconds. Then he traces this shape at his neck, offering, after 0.7 seconds, yet another new noun, '...brooch(?)...' (line 29), whilst re-establishing eye contact with the tester. Although it is not possible to be sure, his production of the noun may have rising, i.e. questioning, intonation. This time he gets the acknowledgement that he seeks – the tester nods (see gloss of line 29) and after 0.2 seconds gives a verbal receipt of the referring expression, *mhm* (line 30), whilst continuing to nod. Roy repeats the noun twice with final falling intonation (line 31), before moving on to talk about something new at line 32.

In hindsight, it seems that Roy has interpreted the picture of the female guest, which shows her necklace to have a large stone hanging from it, to be a depiction of a necklace and a brooch, and that this is what he has been trying to make a comment about. It seems that he has experienced trouble not only in making reference to the female guest initially, but subsequently to her brooch as well. The extremely hesitant and repaired production of these referring expressions suggests that Roy is treating the establishment of reference as highly problematic. Indeed the referring expression for the female guest *remains* highly troublesome; he does not succeed in eliciting from the tester any sign that she knows who he is talking about. The tester does eventually

receipt the noun *brooch* however, with the resulting sequence resembling the joint establishment of reference described by Auer (1984). Thus, the tester registers Roy's problem with this referring expression, and supplies a receipt token to signal that the problem is over – she understands to which object he is referring.

This is the lengthiest sequence devoted to the establishment of reference in the Dinner Party data, and it is the only one where trouble with a referring expression is so problematic that the tester is unable to acknowledge the expression, even after Roy makes an attempt to qualify it. Other sequences are confined to a noun from Roy followed by an acknowledgement from the tester, as can be seen in Extract 35, below, with *dress*:

Extract 35 Roy June00 dinner party#3.15

```
15        Roy      (3.9)    ⌈five. (1.7) °tuh° (1.5)                  ⌉°a::h° (0.8) bedroom, (2.3) °a::::h°
                            ⌊((finger hovers over picture 4)) ⌋
16                 (1.3)    ⌈hu:::m (0.6) tuh (1.0)            ⌈woman, (1.2) °dr-°
                            ⌊((holds clenched hand up to chest...  ⌊...opens hand...
      →                                    ...t--------,,
17    →            ⌈(1.4)          ⌈dress, (0.9)                    ⌉u:::r (2.2)
      →           .⌊...holds hand out...  ⌊((T nods))....hand gesture ends))    ⌋
18                 ⌈black.         ⌉⌈(1.4)        ⌉tuh u:::m (1.6) ⌈ea:rri:ngs.
                   ⌊((flourish))   ⌋⌊((T nods))   ⌋                ⌊((opens and closes hand))
```

Once Roy has seen the tester nod in acknowledgement of *dress*, he releases his gesture, looks back to the pictures, and moves on to the next part of his utterance.

Extract 34 and Extract 35 show Roy treating reference as a matter to be settled before he can continue to say something more. The hesitant delivery of elements, followed by a pause and the establishment of eye contact with the tester, suggests that Roy is treating reference as potentially problematic. As a result, the tester orients to the need to signal recognition, where this is possible. Thus, the establishment of reference becomes an interactional sequence in its own right.

Finally, it is interesting to consider the length and frequency of pauses in the Dinner Party data. As in the Cookie Theft narrative, there is considerable pausing throughout. The longest pre-utterance pause is 5.4 seconds in duration (see line 35, reproduced in Table XVII, page 234). However, Roy shows a tendency to begin an utterance not with a pause but with a filler (see for example line 60, reproduced in Table XV, page 231) or the number of the picture he is about to describe (see for example line 05, reproduced in Extract 33, page 235) in order to signal that an utterance is under way. He then pauses after this initial element, rather than in the pre-utterance slot. Intra-

utterance pauses range from less than one tenth of a second to 8.4 seconds in length (see line 35, reproduced in Table XVII, page 234). It is common to see pauses preceding each element of an utterance, as illustrated in line 06 of Extract 33, on page 235.

8.3.3   Cinderella story telling

The data from the Cinderella story telling is comparable in many respects to that from the Cookie Theft picture description and the Dinner Party cartoon strip description. There are no attempts at sentential structures, and just three verbs are produced. Roy tends to build utterances that resemble the novel constructions of conversation. The Cinderella data exhibits the same cataloguing of individual objects without comment or description of the events to which they contribute as is seen in the Dinner Party (but not the Cookie Theft) data. Thus, there are points at which Roy treats the Cinderella task as one of naming, and not of story telling. A transcript of the data can be found in Appendix 9 (page 397).

Although there are no sentential structures, there is one grammatical unit formed from the combination of an adjective and a noun, the ordering of which suggests that it is an attempt at a subsentential phrase structure, despite the cut-off noun and subsequent self repair: '0.4 u::::::h (0.4) beautiful (.) slip-=u::h u::::::m…' (line 132). Thus, Roy seems to have been about to produce the grammatical phrase *beautiful slipper*.

Roy produces three event verbs: *kneeling down* (line 05), *dancing* (line 110) and *faded away* (line 114); which occur in structural isolation, as do all verbs in the VAST and Cookie Theft data, and three of four verbs in the Dinner Party data. All are one-argument verbs, but none is produced with a noun to take the role of Actor or Theme; there is no argument structure. All are produced with utterance final intonation. It should be noted that *dancing* could be a nominal form, as discussed with respect to *washing up* in the Dinner Party data. In addition, Roy produces the terms *mix up* (line 54) and *mixed up* (line 78) to describe his mental state, i.e. his difficulties with the task. Although these elements resemble verbs, it is not possible to firmly categorise them as such. This is because they appear similar to the fixed units that are also characteristic of Roy's talk, in that the verb and particle seem fused into a single package with a very particular and fixed meaning concerned with his state of knowledge. Furthermore, *mixed up* could actually be an adjective, rather than a verb, but there is no sentential context to permit a distinction to be made. It is worthy of note that each verb and 'possible verb', apart from *dancing*, is followed by a particle, as was the case for the lone verb elicited by the Cookie Theft picture (*fall(s) over*) and three of the four verbs

elicited by the Dinner Party cartoon strip (*phone up*, *washing up*, *sit down*). The verb and the particle either have individual but closely linked meanings, such as in *kneeling down*, or together have a meaning that is not the sum of its parts, as in the more idiomatic *faded away* and *mix(ed) up*.

Fixed units appear, as they do in the Dinner Party and Cookie Theft data, giving the impression of grammatical structure without the need to manipulate grammar. Examples are *I don't know* (lines 24, 52 and 85), *I've forgotten* (lines 158-160) and *y'know* (lines 70, 75 and 127).

The majority of utterances resemble conversational constructions. Those utterances that resemble a noun-initial construction are shown in Table XVIII, below:

transcript line number	transcript#5
02	°uum° tch °uh° (2.1) °uuhh° (1.1) mice, (0.6) two of thum(.)
13-15	u:::m (0.7) uh- (0.7) u:::m (0.9) tch uh (1.7) >°(oh) (1 syllable)°< (1.4) jug, (1.2) toby. (0.2)
63-68	(1.8) u:::r: (1.7) °u::h u::h° (1.7) ups,- (.) two of thum,...(0.5) u::h:: (1.3) u:::m (0.4) tuh ah: (1.6) uh- (1.2) duchess or something.
79-80	u::m (1.5) u:::::::h (1.3) horsi:z, (1.6) six.
138-139	(0.7) u::r (0.6) u:::h (1.5) g- duchess, (0.6)...(0.3) big.

Table XVIII. Noun-initial constructions produced by Roy during the Cinderella story telling.

As Table XVIII illustrates, all examples of this type of construction begin with a noun, produced with continuative intonation to indicate that there is more to come. Subsequently, a comment is offered with final falling intonation. The elements of the utterance are linked via sequential, pragmatic and prosodic means, rather than being anchored together by a verb, and thus if judged against a sentence grammar, they would be deemed agrammatic. Four of the five noun-initial constructions presented here function to introduce referential items that are completely new to the narrative at the point at which Roy mentions them – *mice, jug, ups(tairs)* and *horses*. As has been noted earlier, the function of the novel noun-initial construction in conversation is to initiate talk about a new referential item, and this may be the reason for its use during narratives.

Those utterances that resemble adjective-initial constructions are shown in Table XIX, below:

transcript line number	transcript#5
72-74	(0.5) poor, (0.5) downstairs,
107	°hh and (0.2) °uh-° u:::h (0.5) sudden(.)ly, (1.5) °u:::h° (0.4) rich.
136	u::m (2.2) °u- u-° u::r un (1.5) dainty.
158-159	and, (0.4) u::::m (4.4) the:n::, (3.4) u::::h:: (2.0) (0.9) no good. (1.9)

Table XIX. Adjective-initial constructions produced by Roy during the Cinderella story telling.

As in the Cookie Theft and Dinner Party data, these utterances are designed to express an assessment of a person, an object or an event in the story, not to deliver an opinion on interactant talk as in conversation. As a result, there is no *because* expansion. The adjectives achieve their full meaning via prior sequential context. Three of them are of a different type to those used in conversation, in that they convey the physical attributes of characters or objects, rather than mental or emotional states, or opinions. This finding was also noted in the Dinner Party data. The exception is *no good*, which is clearly given as an opinion of a specific situation. As in the Dinner Party data, an alternative method of assessment via response cry is also observed: '...and then, (0.5) aaaahhhh...' (line 165).

Those utterances that resemble talk and mime constructions are shown in Table XX, below:

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transcript line number	transcript#5

98-104	(0.7) ah- u:::r (6.0) ⌈(2.3)

(0.7) ah- u:::r (6.0)   ⌈(2.3)
                        ⌊*((makes small circular movement with index finger))*

an   ⌈d (1.0) (0.9)
      ⌊*((mimes, side-to-side movement of arm across table top))*

(.) now. (1.1)   ⌈(1.2)   ⌉
                  ⌊*((traces large semi-circle in air with index finger))* ⌋

(0.6) so, (0.2) then, (.) all of a sudden, (1.3) u:::h (2.9) spell.

146-148

u::::h (1.4) and, (1.2) <u>man</u>, (1.8) eu:h (1.5)
⌈(1.5) (0.3)   ⌉ and °now.° (2.7)
⌊*((looks left, flings arm wide, blows out mouth, looks puzzled))* ⌋

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⌈(0.6) so, (1.3)   ⌈kitchen, (0.5)
⌊*((holds out hand...   ⌊...points downwards*

154

(0.6) u:::h (.) prince,   ⌈(0.3) (1.6)
                           ⌊*((points downwards, holds frozen))*

Table XX. Talk and mime constructions produced by Roy during the Cinderella story telling.

As in conversation, each construction functions to relate an event, conveyed via the mime; there is no verb. In conversation, the nouns in talk and mime constructions are often introduced verbally, and this is visible in the utterances of lines 146-148, where *man* is produced before a mime, and lines 148 and 154, where *kitchen* and *prince* precede a pointing gesture. However, in the other construction at lines 98-104, mention of the referential items *Cinderella* and *fairy godmother* is omitted. The explanation may be that they are highly recoverable from the context of Roy's mimes (of scrubbing, and casting a spell) to anyone who knows the story. Omission of a referential item that is highly predictable given the nature of the event was also noted in the Cookie theft data.

As in the Dinner Party data, Roy spends time cataloguing the individual objects he remembers from the pictures. These isolated nouns are listed in Table XXI, below:

transcript line number	transcript#5

05-07

u::::::h::: (1.3) tuh a::hh (0.7) firewood. (0.1)

08-10

then, (3.0) uhh (0.9) scru- er s(.)cullery, (2.3) (0.1) u::m::: (3.0) u::h::
(3.4) °u::h::ah:ah::° (.) fire. (0.4)

12-13

u:::m::: (0.6) picture::s, u:::h:: (0.7) (l)e- uh- (l)et'ra. *[target=etcetera?]*

Table XXI. Isolated nouns produced by Roy during the Cinderella story telling.

These isolated nouns are delivered at the beginning of the story telling, when Roy is trying to convey elements of the first picture he saw.[41] The fact that he does not go on to comment on the nouns in any way suggests that, at this point, he is treating the task as one of naming objects, and not of telling a story. The tester's response lends weight to this idea. Once she realises that Roy is naming from memory rather than engaging in telling the story, she prompts for events by saying '°what's happ'ning°' (see line 22 of main transcript).

In this narrative, Roy makes considerable use of the connectives *and*, *but* and *so*, and the temporal elements *then*, *now* and *suddenly*. These types of elements are common in the Cookie Theft and Dinner Party data and in conversational constructions, but only occur in sentence-level tests when Roy produces a comment about the picture or some personal experience as an alternative to a sentential structure.

The interactional sequence whereby Roy seeks and receives from the tester an acknowledgement of his utterance, via the three-element sequence (1) a response to the task, (2) a pause, and (3) an acknowledgement from the tester, common in the Cookie Theft data, but less so in the Dinner Party data, is observed during the production of *all* utterances of the Cinderella story. Extract 36 contains two examples:

Extract 36 Roy June00 cinderella#5.01

```
01        Roy      (0.7) °uh° (1.7) °uuh° (.) °right,° (1.2) °uum° tch °uh° (2.1) °uuhh°
   →                     ...t--------,,        ...t--------------
02 →               (1.1)    mice,  ⌈(0.6)    two of thum(.)    ⌉
                              ⌊((holds up two fingers))         ⌋
03 →      Tester   ⌈m       hm     ⌉
   →               ⌊((T nods once))    ⌋
   →      R gaze   ----------,,
04        Roy      (1.2) um tuh (2.8)        ⌈(1.4) °uuuuhh° (0.5)    ⌉⌈(0.9)
                              ⌊((puts head in hand))            ⌋⌊((lowers hand, clenches fist...
   →                     ...t--------------------------------,,
05 →               ⌈(0.3) kneeling down(?)              ⌈(2.5)              ⌉u:::::h::
   →               ⌊...moves clenched fist around, holds frozen...   ⌊((T nods, R releases pose))  ⌋
```

In line 02, Roy delivers the noun-initial construction '...mice, (0.6) two of thum(.)', making eye contact with the tester as he produces the comment *two of them*, and subsequently pauses for a micro-second. Thus, he solicits a response from the tester.

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[41] Although the task is to tell the story from memory, pictures of key events are provided to refresh the person's memory. Once these have been studied (in silence), they are removed from sight. Only then does the story telling begin.

She, in turn, acknowledges the utterance, producing *mhm* (line 03), accompanied by a single nod of the head. Roy's gaze remains fixed on the tester until he registers the beginning of her acknowledgement, then he looks away (see gaze transcript below line 03). In this way both Roy and the tester engage in a sequence designed to jointly agree the utterance.[42] A second example of such a sequence can be seen during line 05. After some considerable trouble, signalled by filled and unfilled pauses and non-verbal behaviour (see line 04), Roy succeeds in producing the verb *kneeling down* (line 05). As he finishes delivering it, he makes eye contact with the tester (see gaze transcript above line 05) and pauses for 2.5 seconds, whilst holding his hand posture frozen to suggest that the utterance is not complete until the tester acknowledges it. The intonation of the verb, although not entirely clear from the recording, may be questioning. This adds to the impression that Roy is waiting for a response from the tester. She nods in acknowledgement during the pause. Subsequently, Roy releases the hand posture. He then moves on to begin another utterance by producing a filler. In this sequence, Roy's gesture and prosody reinforce the impression given by eye gaze behaviour that the utterance is not complete until the tester has acknowledged it.

The interactional sequence concerned with establishing reference that was noted during the Dinner Party narrative (but not in the Cookie Theft data) is also seen in the Cinderella story telling. Examples of Roy and the tester jointly engaging in work to establish reference before Roy continues with his description are very common, and sequences can be lengthy. Extract 37 shows a lengthy sequence dedicated to establishing the referring expression *Cinderella*:

Extract 37 Roy June00 cinderella#5.25

25	Tester	what's the: (.) what's the kind of background to the story
		...t-
26	Roy	(1 . 5)
27	Tester	what do-

```
-----------------------------------------------------------------,,
28 → Roy    eh-   ⌈s:(.)cull                ⌉   ⌈ery, (1.1)   ⌉u:::m:: (3.6)
                                               ⌊((T nods))    ⌋
29    Tester       ⌊>°d'you need to know°< ⌋
      →                     ...t-,,                      ...t--
30 → Roy    ⌈/w/- er (0.4) person,   ⌉⌈(.) er:   ⌈girl.              ⌉
            ⌊((holds up index finger))⌋⌊((T nods.......... ⌊((flourish)).......... ⌋
```

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31  →   Tester    ⌈mhm
    →             ⌊...T nods...
        R gaze    -----„
32  →   Roy       ⌈(0.5)        ⌉u::m (3.4) a::h (3.4)   ⌈(ah:::) (0.6) tuh (1.4) °aahh° (2.9)
                  ⌊...T nods))  ⌋                        ⌊((holds up index finger................
    →                                              ...t------------
33  →             ⌈whi(.)te, ( 3.1)  ⌉⌈(3.4) °sss° sleepin', (0.5) white. (1.6)
                  ⌊....................))  ⌋⌊((index finger held above table top, wiggles it...
34  →   Tester    sleepi:ng,        ⌈(1.7)
                                    ⌊((R holds gesturing hand frozen...
    →   R gaze    ------------------------„
35  →   Tester    (oh/are) you thinking of sleeping beauty
                  ----„
36      Roy       ⌈(0.6)
                  ⌊((wiggles hand from side to side...
37      Tester    ⌈no:.
38      Roy       | °yeah,° n    ⌈o.
                  ⌊...continues to wiggle hand...
39      Tester                   ⌊no?
                      ...t--
40      Roy       (0.4)   ⌈yeh,
                          ⌊((emphatic mmt of hand, nods...
41      Tester    y     ⌈eah
                        -------
42  →   Roy       | yeah.
                  ⌊((stops gesturing, puts hand on arm))
43                (0.3)
                  --------
44      Roy       ⌈°(yeh)°
45  →   Tester    ⌊Cin:::(.)derella
    →             -----„          ...t------------------------------------------------„
46  →   Roy       (0.4) Cinder   ella yeah yeah eh eh   ⌈°ex'   ⌉(llent)=yeah°=
47  →   Tester                                          ⌊close  ⌋
48  →             =same kinda thi ⌈ng huh huh HEH heh heh ⌉
49                ...t--„                              ...t---
    →   Roy       ⌊eheh heh heh heh heh  ⌋   °hhhh
50  →   Tester    okay then what happens
                  --------„
51      Roy       (0.7) u::m:::   ⌈(1.3) °u::m°   ⌉⌈(5.4) °wuh° (1.4) tuh (3.4) (°uh uh°)   ⌉
                                  ⌊((clasps chin)) ⌋⌊((holds out hand, extends index finger......))  ⌋
52                ⌈(10.7)         ⌉   ⌈>°I don't know.°<                            ⌉
                  ⌊((clasps chin)) ⌋  ⌊((holds out hand, extends index finger......))  ⌋
```

This extract begins with the tester prompting Roy to say something about the background to the story (see line 25). She does so because, up until now, Roy has listed those objects he remembers from the first picture, rather than said anything about the events of the story (see Table XXI, above, and related discussion). In response to the prompt, Roy produces the reference to location, *scullery* (line 28), that he first mentioned at lines 08-09. After some considerable time, he follows this with a term designed to accomplish reference to person: '(1.1) u:::m:: (3.6) /w/- er (0.4) person,...'

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(line 30). His first attempt, /w/-, is cut off and repaired to *person*, which is produced with continuative intonation, suggesting more talk is to come. As he begins, he raises his index finger. This suggests that he may be talking about one person.[43] Almost immediately, he follows *person* with a second, more specific term: '...(.) er: girl.' (line 30). Roy's extremely hesitant and repaired production of the first referring expression, and immediate addition of a second suggests that he is treating the establishment of reference as problematic. Consideration of gaze adds further weight to the argument – Roy seeks the tester's engagement by making eye contact as he delivers each noun (see gaze transcript above line 30). The tester responds by receipting the noun both verbally and non-verbally (see line 31), with the resulting sequence resembling the joint establishment of reference described by Auer (1984). Thus, the tester registers Roy's problem with reference, and supplies a receipt token to signal that the problem is over – she knows to whom he is referring.

What Roy does next is interesting. Given that the tester has signalled recognition of the referring expression, Roy might be expected to deliver his comment. However, after a 0.5 second pause, he instead attempts another reference term, and thus signals that for him, reference is not yet fully established. By the end of the sequence, it becomes clear that Roy is attempting to produce the proper name, *Cinderella*. However, he runs into trouble, producing what appears to be a mixture of *snow white* and *sleeping beauty*: 'u::m (3.4) a::h (3.4) (ah:::) (0.6) tuh (1.4) °aahh° (2.9) whi(.)te, (3.1) (3.4) °sss° sleepin', (0.5) white.' (lines 32-33). As he delivers *white*, with final falling intonation, he seeks acknowledgement by pausing and making eye contact with the tester (see gaze transcript above line 33). The tester at first repeats a part of the utterance with continuative intonation, 'sleepi:ng, (1.7)' (line 34), in an attempt to prompt Roy to say more. During the 1.7 second pause, Roy looks away from the tester, as if re-engaging with the attempt to produce an acceptable referring expression. Subsequently, when it appears that Roy will not say more, the tester offers a guess '(oh/are) you thinking of sleeping beauty' (line 35). After confusion as to whether Roy's reply to this query is yes or no (lines 36-44), the name *Cinderella* is finally established as the root of the trouble, and a version is offered by the tester (line 45) and repeated by Roy (line 46). The tester then tries to play down the problem by introducing an element of humour: 'close...same kinda thing huh huh HEH heh heh' (lines 47-48). Laughter from both parties brings the sequence to a close, and the tester

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[43] It is possible that /w/- may be the beginning of the word *one*.

then re-orients Roy to the task at hand with 'okay then what happens' (line 50). In this way, the narrative moves on without Roy offering a comment about the referring expression that he has struggled to introduce, the establishment of which has become a joint effort on the part of both himself and the tester.

Although the tester has signalled adequate understanding of who Roy is talking about, he may be motivated to continue to pursue reference because he is striving for a *locally initial* reference term (Schegloff, 1996b: p. 450). At this point in the story, i.e. the first time he has mentioned the character, the locally initial term is the proper name *Cinderella*. The nouns *scullery*, *person* and *girl* may serve perfectly as *recognitional* reference forms (Schegloff, 1996b: p. 459) for the tester, knowing, as she does, the story and the pictures, but Roy seeks an appropriate form for a *first* mention. Thus, he demonstrates that he is oriented to a mismatch between sequential position and form.

Extract 37, above, reveals the lengthiest sequence devoted to the establishment of reference in the Cinderella story telling data. Other sequences are shorter, often confined to the production of a noun by Roy followed by tester receipt. An example can be seen in Extract 38:

Extract 38 Roy June00 cinderella#5.72

```
 →                                                                              ...t----
72  →  Roy      (0.5)  ⌈poor,        ⌈(0.5) down                               ⌉stairs,=
                       ⌊((flourish))  | ((big point mmt downwards, gaze follows gesture))  ⌋
     →                                ⌊((T begins to nod.................................................
73  →  Tester   ⌈=mhm
     →          ⌊...continues to nod...
     →  R gaze  ---------
     →          ---------------------------------------------------------,,      ...t----,,
74  →  Roy      ⌈(0.5) er        ⌈maid,         ⌉(.) und (.)        then, (1.7)            ⌉
     →          ⌊...T continues to nod.............⌊((flourish))    ⌋.............................))  ⌋
```

In this extract, Roy produces an utterance at line 72 that begins with an assessment adjective, *poor*. The utterance appears to be an adjective-initial construction, assessing one of the persons in the story, but unusually, rather than being designed to do just the action of assessment, it continues with two reference terms, the first to location, *downstairs* (line 72, accompanied by a gesture), the second to person, *maid* (line 74). Thus, the utterance is designed to contextualise the assessable of *poor*, and signals that Roy is treating the establishment of reference as problematic. He actively solicits the tester's response by looking up as he delivers the second syllable of the reference to location, and the tester quickly acknowledges the utterance with a latched *mhm* (line

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73). Indeed, she has been nodding since he started the gesture of location, 0.5 seconds before he spoke the reference to place *downstairs*. This suggests that she understands who Roy is talking about. In fact, it is quite obvious from his choice of assessment term and knowledge of the story that it is Cinderella who is the focus of his talk. However, as in Extract 37, Roy adds a second reference term, even though the tester has displayed comprehension of the first, thus signalling that, for him, reference is not yet fully established. Again, he seems to be striving to produce a suitable term for the sequential position, which here is a reference to *person*, and not just to place. He does not break eye contact with the tester until he sees her continue to nod through his production of *maid*. He looks away as he continues his utterance with *and* (see gloss of line 74).

These extracts show Roy treating reference as a matter to be settled before he can continue to say something more. The hesitant delivery of elements and active soliciting of the tester's response suggests that Roy is treating the production of referring term(s) as potentially problematic. As a result, the tester orients to the need to signal recognition or initiate clarification, should this be necessary. Thus, the establishment of reference becomes an interactional sequence in its own right. This sequence is very common in the Cinderella story telling, and it can have a consequence for the form of Roy's utterances during the task. The positioning of the tester's verbal receipt can temporally and sequentially 'disconnect' the reference term from any linked account that may follow. This has the potential to cause a noun that is designed to be part of a larger, sequential construction to resemble a severely agrammatic 'one word utterance', especially if a standard grammar was to be used to analyse the data, with no account taken of prosodic information. In addition, severe problems with establishing reference may lead Roy to fail to comment on the referring expression at all, but rather to move on to another part of the story. Thus, Roy may appear more severely agrammatic than he actually is because of problems establishing reference.

Finally it is interesting to consider the length and frequency of pauses in the Cinderella story telling data. As is the case with the Cookie Theft and Dinner Party data, there is considerable and lengthy pausing throughout. The longest pre-utterance pause is 3.6 seconds in duration (see line 152 of main transcript). However, as per the Dinner Party data, Roy shows a tendency to begin an utterance not with a pause but with a filler or a connective such as *so* or *then*, in order to signal that an utterance is underway. He then pauses after this initial element, rather than in the pre-utterance slot. Intra-utterance pauses range in length from less than one tenth of a second to 17.2 seconds (see line 55 of main transcript). It is common to see a pause before each

element of an utterance, as demonstrated by the utterances reproduced in Table XIX, on page 241.

8.3.4 summary of performance on narrative tests and comparison with the findings of sentence-level tests

In summary, the type of data that is elicited by the narrative tests is fundamentally different to that produced during the sentence-level tests. The clinical profile that emerges from the sentence-level tests is one of severe agrammatism, affecting both the ability to produce nouns and verbs in isolation and as part of argument structures. As the number of arguments required by a verb increases, performance declines sharply. However, with the provision of certain facilitative test administration procedures, Roy does demonstrate an ability to integrate an agent and a verb in order to produce a one-argument structure. On occasion he even manages some two-argument structures. All such structures reveal that morphology is severely impaired, although he can produce the progressive *–ing* verb ending. Where the sentence-level test provides minimal support, ability to access verbs declines still further, and when a verb is produced, it occurs in isolation; no attempt is made to produce it as part of a grammatical structure.

In sharp contrast, during the narrative-level tasks, only one sentential utterance is attempted: *man washing up* (Dinner Party data, line 06). A few additional verbs are produced in structural isolation - one during the Cookie Theft data, four during the Dinner Party data and three during the Cinderella data. Instead, utterances are built using the resources that Roy deploys in conversation: novel constructions, fixed units such as *I expect* and *I don't know*, the connectives *and*, *but* and *so*, and temporal elements such as *now*, *then* and *suddenly*, plus response cries and direct reported speech.

The speed of production of narrative utterances can be extremely slow, and this, again, is the case for all test data. The length of a pause in the narrative data ranges from less than a tenth of a second to 17.2 seconds (see line 55 of the Cinderella story telling transcript). This compares to 0.4 – 79.5 seconds for TRIP, and 0.1 – 19.4 seconds for the VAST.

The verbs deployed at a narrative level are of two types. Six of the eight are verb forms followed by a particle: *falls over* (Cookie Theft data); *phone up*; *washing up*; *sit down* (Dinner Party data); *kneeling down*; *faded away* (Cinderella data). The verb and the particle either have individual but closely linked meanings, or together have a meaning that is not the sum of the parts, i.e. it is idiomatic. Is there any significance to the fact that a 'verb + particle' package is commonly used by Roy? It seems plausible

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to suggest that these combinations may have a higher level of semantic salience, and thus may be more accessible to him. The particular combinations he deploys certainly seem, at an intuitive level, to represent the most common pairing in English of that particular verb with a particle. With their tight structural and prosodic packaging – all are delivered without any pausing between the two words, many with final, rather than continuative, intonation – they bear some resemblance to the fixed units also favoured by Roy, e.g. *I don't know*, *y'know* and *is alright*, which are the only other source of verbs in his talk. Thus, it seems possible that these verb packages could have crystallised into single units in Roy's language. The remaining narrative verbs, *crying* (Dinner Party data) and *dancing* (Cinderella data), are formed of a single element with an *–ing* ending. As was discussed, these items could be said to represent verbs that have been transformed into nominal form (*washing up* may also be viewed in this way). To summarise, during the narrative tasks, Roy seems to favour those verbs that can be delivered and understood as an isolated semantic package, rather than those that require a structure and linked nouns to convey meaning. In comparison, the types of verbs elicited by sentence-level tasks are never 'verb + particle' packages. Approximately three quarters of all verbs elicited, whether target verbs or errors, are *-ing* forms. On TRIP, where Roy produces the *-ing* form with an accompanying argument structure, it is clearly identifiable as a verb. However, on the VAST, where verb forms are produced in isolation, it is not possible to know if the *–ing* form is a verb or a nominal. The other quarter of elicited verbs are uninflected forms, of which those elicited by the VAST test could either be verbs or nouns.

The absence of a sentential approach to the narrative tasks may reflect the sheer difficulty that Roy encounters when producing a verb and integrating it with nouns in a grammatical structure. If a test situation provides him with an opportunity to approach the task in a different manner, it seems that he will grasp and make the most of this opportunity. What is it about narrative tasks and conversation, but not sentence-level tasks, that promote the use of novel constructions? One possibility is a focus on the *function* of establishing what is being talked about, and then offering some account of it, rather than a focus on *form*, where the characteristics of the sentence are the priority, the noun(s) having been established by the picture. Narrative tasks may be more akin to conversation than to sentential tasks when it comes to motivation to establish reference, because the set of possible persons and objects which could form the focus of talk is greater for narrative- than for sentence-level tests. The finding that Roy only uses novel grammatical constructions during sentence-level tests to offer a comment about a

picture or some related personal experience, i.e. when his focus is *not* on producing a sentential form, supports the proposal that form versus function may be a key distinction.

In addition, test data reveal several distinctive forms of interaction between Roy and the tester. On sentence-level tasks, Roy (i) deploys intonation as a resource for engaging the tester in production of an utterance, and (ii) offers a comment about a picture or recounts some personal experience related to the event depicted, thus drawing the tester into conversation, instead of attempting an utterance. Both behaviours result in completion of his response becoming a joint venture. During all narrative tasks, he solicits the tester for acknowledgement of an utterance. Interestingly, this phenomenon is widespread throughout the Cinderella narrative, common in the Cookie Theft narrative, and yet much less common in the Dinner Party data. It seems then, that it is not simply the case that the absence of pictorial support results in an increased need for Roy to check his utterances with the tester. In addition, during the Dinner Party and the Cinderella narratives, joint establishment of reference is observed. Some of the sequences in the Cinderella data are lengthy, and reveal considerable difficulty with establishing reference. Although the picture is far from straightforward with respect to these forms of interaction, it may be that the relative 'freedom' of different tasks affects Roy's behaviour. It may be that, when forced by a sentence-level task to produce one specific sentential structure/verb, he looks for reassurance after every attempt. However, when given more scope with respect to what to say and how to say it, such as that afforded by the Dinner Party cartoon materials, he may need less reassurance about utterances, and more help with establishing reference. Finally, when given scope but no pictorial support, such as during the Cinderella story, he is once more motivated to check utterances, whilst also seeking help with reference.

8.4   A COMPARISON OF TEST DATA AND CONVERSATION

The following section presents a discussion of the key findings that arise out of a comparison of Roy's test data and conversation.

8.4.1   Roy deploys interactional alternatives to standard grammar where the environment of talk-in-interaction allows

An analysis of Roy's turn construction in conversation reveals four distinctive grammatical phenomena: fronting of (i) a noun or noun phrase and (ii) an adjective into

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turn-initial position, (iii) talk and mime construction, and (iv) the use of Di's talk as a resource for conveying his meaning. In a turn constructed using a noun in initial position, elements are packaged into a single construction via sequential, prosodic and pragmatic means, rather than by grammatical linkage; there is no verb. In turns that begin with an adjective, the account that follows is linked to the assessment term by the connective *because*. The account lacks a verb and thus has no argument structure. Links between the elements are achieved via sequential and prosodic means, but also via the use of grammatical connectives and fixed units. These serve to lend an air of grammaticality to Roy's talk without the manipulation of verbs or their arguments. Talk and mime constructions deploy mime to convey an event, with accompanying talk restricted to connectives and discourse particles, with the occasional noun or element of reported speech. The analysis suggests that mime is an adaptation developed to permit the recounting of events in the absence of verbs. In addition to using his own language in these novel and systematic ways, Roy also deploys Di's talk as a resource for completing an unfinished turn. This can be achieved by collaborating with Di in a sequence where she actively offers a version of what he means to say, or by making a retrospective claim on Di's talk to convey his meaning, even when she did not design it in this way. Thus, Roy works to maximise all opportunities to use Di's talk as a resource for making meaning.

By way of contrast, sentence-level assessments reveal Roy attempting to access verbs and, on occasion, to build argument structures. However, it is clear that this is extremely difficult for him. The narrative tests reveal that he favours methods of turn construction seen in conversation, where the test environment provides an opportunity to deploy these. Thus, only one sentential structure is produced during a total of three narrative tasks. All other utterances are built using noun- or adjective-initial constructions, or talk and mime constructions. Clearly the option of using a recipient's talk as a resource is not possible during a narrative task. As in conversation, linkage of the elements of a novel construction into a discrete package is achieved via sequential, prosodic and pragmatic means, with the occasional grammatical link produced via the deployment of fixed units and connectives which do not actually require manipulation of grammar.

Roy's use of novel constructions rather than sentential utterances during narrative tasks may be motivated by a shifting focus across tasks from sentential form to utterance function. The narrative tasks create an environment in which it is important to introduce referential items in a manner that distinguishes them unequivocally from other

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items, and then to describe them and comment on the events in which they are involved. There is relative freedom with respect to the methods that can be used to achieve this. Thus, for Roy, the demands of narratives, especially the more complex ones and those attempted without pictures, are akin to those of conversation, where he is motivated to establish reference, to give his opinions and to convey events in the absence of verbs. By way of contrast, sentence-level tasks restrict output to a single sentential structure, and deem this to be the only acceptable response. The focus on one discrete event renders reference to persons and things much less complex, and indeed less necessary, than in conversation. For example, most of the VAST pictures show only one person involved in an event. Given this test environment, Roy chooses *not* to refer to the Actor or Theme of the event in response to any of the stimuli; he merely produces a verb. TRIP is somewhat different, in that it aims to elicit one to three *full* nouns per picture, in order to clearly identify 'who does what to whom', but still there is no need to specify reference to persons in any great detail. In fact, there is a sense in which the test, with its pictures and modelling, converts what in conversation might be termed *non-recognitional* person reference forms (Sacks and Schegloff, 1979) – the man, the boy, the lady etc. – into recognitional forms. The pictures contextualise these 'general' and non-specific reference terms by severely limiting the number of items that they could refer to. This allows such general terms to easily identify a specific person in the picture. In addition, by rehearsing the person reference terms that will be used in the test proper, the tester and Roy jointly establish them as recognitional reference terms before the test begins. Given that all referential items are pictured, TRIP and the VAST not only require less specificity than conversation with respect to reference, they also visually cue the production of reference terms (Lesser and Milroy, 1993), thus considerably simplifying the process of reference *per se*.

In summary, Roy's use of novel grammatical constructions is motivated by the need to establish reference to one specific person or thing from a potentially infinite set of possible referential items, to signal his opinions by assessing things, and to convey events in the absence of verbs. Sentence-based testing environments create the need to produce a standard sentence or an isolated verb in an environment where reference is much less complex, and sometimes not necessary at all, and so motivations are very different. Consequently, there is no deployment of novel construction techniques. However, the narrative task renders conversational actions potentially relevant, with the result that Roy is able to build interactional alternatives to sentential structures in this particular testing environment.

8.4.2 it is possible for Roy to recount an event without manipulating a verb or argument structure

The sentence-level tests reveal that Roy has a significant difficulty in producing verbs, even in isolation, and in integrating a verb with a noun or nouns to produce an argument structure. Given this, it might be expected that he would find it extremely problematic to recount events in narratives and in conversation. However, analysis of the narrative and conversation data reveals that this is not the case. Although Roy only manages to produce between one and four verbs during each of the three narrative tasks, eight in all during a total of 19 minutes and 50 seconds of data, and three during 23 minutes and 09 seconds of conversation with Di, other events are conveyed. This is achieved via a combination of talk and mime. Whilst the mime serves to communicate the event(s), the talk (elements such as discourse particles, connectives, reported speech and the occasional noun) provides a framework for the telling, and functions to highlight the importance of the mime to the meaning of the turn as a whole. If a noun is produced, it is not always possible to judge what thematic role it plays; it merely appears relevant to the event in some way. Thus, such constructions lack a clear argument structure. Whilst many talk and mime constructions succeed in conveying meaning to a recipient, others do not (Extract 24, the laptop mime, for example). It seems that, for Roy, mime serves as an adaptation to agrammatism, permitting him to convey events in the absence of verbs and argument structures, and to be relatively successful in doing so.

8.4.3 only a minority of Roy's conversational or narrative utterances are concerned with recounting events – the actions of commenting, assessing and reasoning are highly prevalent

A striking feature of Roy's narrative data, and particularly of his conversation with Di, is the amount of commenting, assessing and reasoning that is undertaken. It seems that a considerable amount of Roy's talk is taken up with these actions, rather than with recounting events. This is interesting, given that assessments are designed solely with the purpose of eliciting events. Central to these alternative actions is Roy's deployment of the adjective, the noun and the connective, words that appear to be more readily accessible to him than verbs. This is not to suggest that one does not need a verb in order to comment, assess or reason. However, to take assessment as an example, in English at least, the state verb *be* that occurs in the common structural format for an assessment, *NOUN/PRONOUN is ADJ, that's an ADJ NOUN* (Goodwin and Goodwin,

1992a) is much less important to the action of assessing than is the adjective, or the noun. Thus, for Roy, omitting *he/she/it is*, as he always does, and merely producing the adjective – *poor, daydreaming, amazing, special* etc. – does nothing to mar the achievement of the action of assessing something. It seems that, for Roy, assessment is an action that can be deployed with great effect despite his agrammatism, because he still has access to adjectives, and the verb plays no role in meaning, so its omission does not affect mutual understanding. Reasoning too, which occurs often in his conversation, has structural benefits. Roy's easy access to the item *because* permits him to project a sentential grammatical structure onto the elements of talk that will follow without actually deploying any grammar. In some cases, it projects enough information about the upcoming action that Di is able to successfully predict and supply a version of what Roy means to say without him having to complete his turn at all. In this way, the impact of his agrammatism is reduced. The actions of assessing and reasoning also have in common the fact that they are forms of talk that build on context; they are tied, be it to the pictorial materials or the prior talk of oneself or another individual. Context too may be beneficial for Roy, in that it 'scaffolds' his talk, such that it provides a (visual) prompt or prior (verbal) meaning for him to respond to. This contrasts with a situation in which he might independently initiate a new sequence, with all the linguistic difficulties that such a thing might entail.

Recounting an event is clearly only one of a number of actions deployed by Roy during narratives and conversation. It is worthy of note that tests of grammar set out merely to assess the expression of events; there is no attention paid to a person's ability to give an opinion or to express a reason. This point will be discussed in Chapter 9, Discussion and clinical implications (page 260).

8.4.4 only some of the traditional clinical tests of grammar reveal Roy's ability to produce sentential structures

The analysis of different levels of test data has shown that it is only the sentence-level tasks that actually reveal Roy's ability to produce sentential structures. The narrative tasks do not tap this skill because it is possible for Roy to adapt when completing such tests to produce interactional alternatives to sentential structures. As was discussed in section 8.4.1 above, it seems that narrative tasks provide Roy with the opportunity to build his utterances as he does in conversation, because they permit a certain freedom with respect to what is said and how. Thus, although sentence-level tests are purely focused on *form*, requiring as they do the production of a sentential structure or a verb

to describe a single event, the narratives permit the focus to shift to *function*, giving the speaker an opportunity to produce utterances with a range of functions, such as assessing a person or object, or giving an opinion, rather than merely describing an event. The clinical rationale for the use of a narrative-level task is to elicit sentential grammar at a level of complexity closer to everyday language use. Findings for Roy suggest that it cannot be assumed that a narrative will reveal information about production of sentential grammar. However, interestingly, for Roy, the narrative tasks do indeed tap the language structures of conversation, if one knows what type of structures to look for. This issue will be addressed in Chapter 9, Discussion and clinical implications (page 260)

8.5   SUMMARY

The chapter has utilised traditional testing and analysis procedures based on a standard grammar in order to build a clinical profile of Roy's grammatical strengths and weaknesses. Section 8.2, performance on word- and sentence-level tests, reveals a moderate difficulty with noun production, but a severe difficulty with verb production and the integration of a verb with nouns to produce an argument structure. None of the elicited responses is a grammatically well-formed sentential utterance. Performance on TRIP is somewhat better than on either subtest of the VAST, such that, at best, TRIP elicits a few one- and two-argument structures (albeit with morphological errors), but the VAST elicits only isolated target verbs. The administration procedures of each test may be relevant, in that Roy is encouraged to treat the VAST as a verb elicitation task, and the TRIP as eliciting argument structures. If an interactional approach is taken, as in sections 8.2.2.3 and 8.2.2.4, notable sequences of behaviours involving Roy and the tester emerge from the sentence-level data. One involves the use of *intonation* as a resource for (i) holding off the tester in order to complete an utterance without help, or for (ii) engaging the tester in order to make the task of responding to a picture an interactive one. The other sequence of interaction involves Roy deploying conversational constructions in order to offer a comment about a picture, instead of attempting the expected sentential response. His comment engages the tester in conversation, and momentarily shifts the focus of their interaction away from testing. Significantly, Roy solicits the tester's engagement considerably more during the VAST, where he encounters much more difficulty accessing verbs and produces no argument structures, than he does during TRIP, where he produces more verbs, some of which are

even in argument structures. These interactive sequences may have benefits for Roy, such that his difficulty with certain stimuli is masked, and the tester actively engages with him to help him complete items.

Section 8.3, performance on narrative-level tests, uncovers a very different performance. A traditional analysis of sentential grammar reveals just *one* sentential structure in the data from three narrative tasks, along with a few phrases such as *four people*, and some structurally isolated verbs - one in the Cookie Theft data, four in the Dinner Party data and three in the Cinderella data – that take the form 'verb + particle'. These verbs may be beneficial in that they can be delivered and understood as an isolated semantic package, rather than requiring an argument structure. An interactional approach to the analysis uncovers utterances built in the same systematic fashion as are the constructions of conversation, specifically the noun-initial construction discussed in Chapter 7, section 7.2.1, the adjective-initial construction of section 7.2.2, and the talk and mime construction of section 7.2.3. Additional resources seen in conversation are also employed: fixed units such as *I expect* and *I don't know*; the connectives *and, but* and *so*; temporal elements such as *now, then* and *suddenly*; response cries; direct reported speech. An interactional approach to analysis of narrative data also reveals two distinctive interactional sequences between Roy and the tester. One involves Roy soliciting from the tester an acknowledgement of the utterance he has produced. The other, which is exclusive to the Dinner Party cartoon description and the Cinderella story telling, involves Roy and the tester jointly establishing reference. This sequence can temporally and sequentially disconnect a noun from the rest of the construction to which prosody suggests it belongs. Thus, joint establishment of reference has the potential to cause Roy to appear more severely agrammatic than he actually is.

Section 8.4, a comparison of test data and conversation, highlights the lack of a straightforward relationship between the grammar elicited from Roy by traditional clinical tests and the grammar of interaction seen in use in his everyday conversation. Section 8.4.1 puts forward the proposal that Roy deploys interactional *alternatives* to standard sentence structures in those environments that permit him to do so – conversation and narrative. It is suggested that the feature of conversation and narrative that makes this adaptation possible is the focus on utterance function, rather than on form. It seems that the freedom afforded by these two language environments with respect to what *action* an utterance can do, for example, assessment, commenting, conveying an event, and what *resources* can be employed in order to convey that action, is beneficial for Roy. By way of contrast, the highly constrained nature of a sentence-

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level task, which demands the production of an utterance with a pre-set focus – conveying an event – and a pre-set form – a verb or a grammatical sentence – is severely detrimental to his ability to produce language. The observed importance of function to Roy's ability to build utterances suggests that grammar can be shaped by considerations other than the rules of a standard grammar. This idea will be explored in detail in Chapter 9, Discussion and clinical implications, on page 260.

Roy's ability to convey an event without using a verb or an argument structure is highlighted in section 8.4.2. During sentence-level tasks, he encounters significant difficulty when attempting to produce an utterance to convey a pictured event. However, despite this, the narrative and conversation data reveal that he can successfully convey an event without producing a verb. He does so by building an utterance using a combination of talk and mime, where the latter conveys the event(s). The use of a talk and mime construction to convey an event represents a specific adaptation to agrammatism, since it permits Roy to achieve an action that ordinarily implicates the use of a verb and an argument structure, two elements of his sentential grammar that are severely impaired.

Section 8.4.3 notes that only a minority of Roy's conversational or narrative utterances are concerned with recounting events. Highly prevalent are the actions of commenting, assessing and reasoning, which Roy can convey successfully by using resources such as adjectives, nouns and connectives. Recounting an event is clearly only one of a number of actions deployed by Roy during narratives and conversation. This finding has implications for the assessment of agrammatism, which will be discussed in Chapter 9, Discussion and clinical implications, on page 260.

It is only the sentence-level tests that reveal Roy's ability to produce sentential structures, and this finding is discussed in section 8.4.4. The narrative tasks do not tap sentence grammar because it is possible for Roy to adapt when completing such tests to produce interactional alternatives to sentential structure. Once again, the shift in focus from form to function is suggested as motivation for the production of conversational constructions during narratives. This finding has implications for the assessment of agrammatism using narratives, which will be discussed in Chapter 9, Discussion and clinical implications, on page 260.

In summary, this chapter reveals that, for Roy, the relationship between elicited grammar and the grammar of interaction is complex. Findings suggest that, when the environment of talk-in-interaction permits, Roy deploys interactional constructions instead of sentential structures. Thus, it is only the environment of sentence-level

testing that promotes a focus on sentential form. These points will form the basis of the next chapter, Chapter 9, Discussion and clinical implications, where a comparison will be made between Roy's elicited and conversational grammar and Connie's.

9 Discussion and clinical implications

This chapter begins with a review of the major findings of the study:

(1) talking in turns shapes the characteristics of aphasic grammar;

(2) aphasic individuals adapt to test situations;

(3) the relationship between conversational and test grammar is not straightforward.

Each section of the review highlights comparisons and contrasts between Connie's and Roy's conversational and elicited grammar. Subsequently, the discussion turns to implications for aphasiology, a review of the methodology, limitations of the present study and suggestions for future research.

9.1 TALKING IN TURNS SHAPES THE CHARACTERISTICS OF APHASIC GRAMMAR

Chapters 5 and 7 have demonstrated that, for both Connie and Roy, there exist *interactional alternatives* to standard grammatical structures. Both speakers have, in the context of their agrammatism, developed new ways of doing turns at talk in conversation – the novel constructions discussed in sections 5.2 (Connie) and 7.2 (Roy), respectively. Connie's methods are summarised diagrammatically in Figure 1 below:
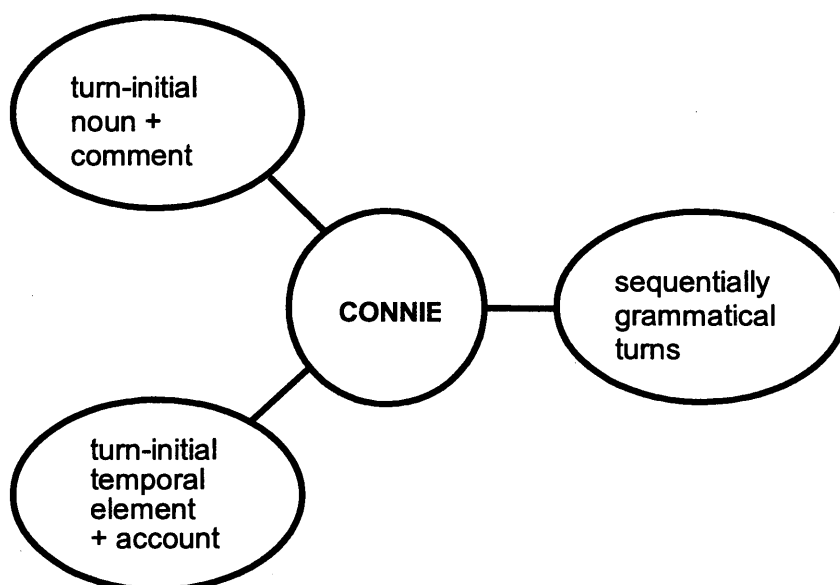
Figure 1 Connie: diagrammatic summary of methods of turn construction in conversation.

Roy's methods are summarised in Figure 2 below:
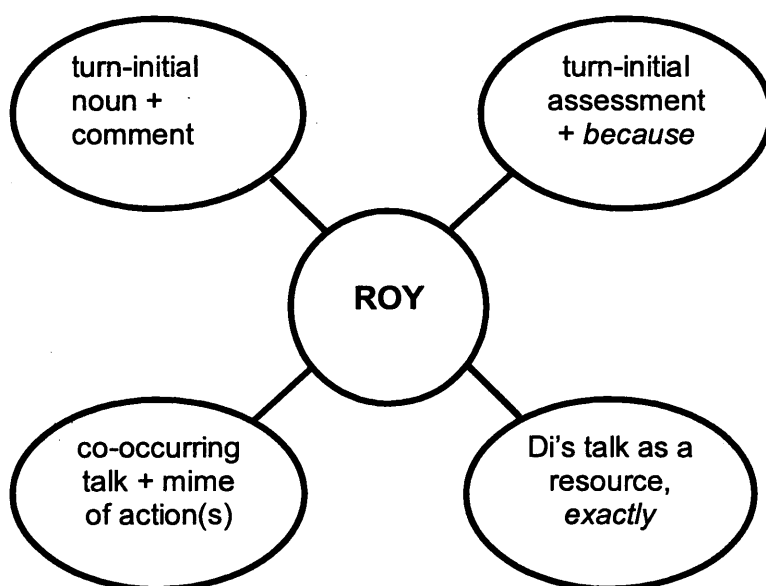
Figure 2 Roy: diagrammatic summary of methods of turn construction in conversation.

9.1.1 packaging the elements of a novel construction

All novel turn construction methods used by both aphasic speakers have in common a reliance on links other than those of a grammatical nature to package the elements of the turn together. The key resources for projecting the end of a turn in normal, non-

language disordered talk are prosody, grammar and pragmatic or action structure (Ford et al, 1996; Ford and Thompson, 1996). In the language environment of agrammatism, where grammatical projection is disrupted, we see turns designed to permit the convergence of sequential adjacency, prosody and action structure cues to signal links between words in an utterance. Grammatical projectability is not completely absent, but its presence fluctuates from turn to turn. Often, the *scope* of the projection – the amount of temporally unfolding turn over which it exerts an effect – and its *specificity* is reduced. This is linked to the fact that, for both speakers, agrammatism reduces the length and complexity of grammatical structures. In Connie's talk, we see turns with no grammatical linkage at all, and thus no projection of grammatical structure, for example, *middle one forty years old Valentine's day*. In addition, there are turns with partial grammar, where the projection is restricted to only one part of the turn, for example, *June three tier wedding cake I make it*. This exhibits grammatical projection for the turn final account but not for the initial temporal element or the noun phrase. In Roy's talk, grammatical linkage is absent except where he uses the connectives *but, and* and *because*, and fixed units such as *I suppose* and *I thought*. These elements simply project that more talk will follow at a multi-word level;[44] they do not project the specifics of the unfolding structure, as for example a 'subject' would project a 'verb', which in turn would itself project what kind of element(s) would follow the verb (Fox et al, 1996). Thus, it appears that agrammatism results in talk that manifests a similar kind of 'loose syntactic organisation' to that discussed by Fox et al (1996) in relation to the Japanese language, whereby the recipient is obliged to deploy a 'wait and see' tactic in order to pinpoint the end of a turn.

Despite displaying limited grammatical projection, the talk of both speakers successfully conveys the trajectory of the turn via unfolding *action* structure and prosody. In the case of action structure, both Connie and Roy begin turns with new referring expressions, which strongly project more talk to follow, since at the point at which the expression is produced, the 'topic' is known but not the nature of the comment about it. In addition, in Roy's talk, the connectives *but* and *because* are strongly suggestive of the upcoming actions of contrast and reasoning respectively, and fixed units project not only an upcoming opinion but also a stance – *I suppose* implies mitigation, for example (see Beeke, 2003). In the case of the connectives, the projection

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[44] It would not be accurate to designate such a projected multi-word utterance as a 'sentence', 'clause' or 'phrase' since these grammatical concepts have no correlate with Roy's observable language structures.

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is so strong that Di is often able to render a version of what Roy means to say before his turn is complete. For both Connie and Roy prosodic projection via mid level intonation on non-final elements of the turn is also an important mechanism for signalling the turn trajectory, as it is in non-aphasic talk (Selting, 1996; Ford et al, 1996). As Lind (2002b) notes with respect to the Norwegian aphasic speaker Aksel, this is evidence of the ability to plan ahead to construct a multi-element turn. Such prosodic resources reveal that orderliness exists at the level of turn construction for aphasic speakers, despite disrupted grammar.

Connie's and Roy's methods of packaging elements into novel turn constructions undoubtedly appear unconventional, but it is important to note that individual mechanisms such as prosody and action structure are not a result of the aphasia. Rather they are normal mechanisms operating in the absence of grammar. Neither speaker's methods cause the interacting partnership much difficulty with reaching a state of mutual understanding. Thus, although every one of the novel construction types examined could be said to be agrammatic if the comparison is made with a sentence grammar, they are not, as we might assume, necessarily problematic for the purposes of communication. The finding that limited grammatical projectability does not tend to disrupt the aphasic speaker's ability to signal units in their talk, and to project the end of a turn, supports the suggestion by Auer (1996) and Ford and Thompson (1996) that grammar is not as vital to turn organisation as was originally mooted by Sacks et al (1974).

9.1.2 novel constructions and conversational action

A consideration of such novel constructions reveals a focus on conversational *action*, whereby the form of a construction appears to be linked with the action it is designed to do. Thus, both Connie and Roy use recognisably *distinct* turn formats to do 'commenting' and 'recounting an event', and in addition, Roy deploys other recognisably distinct formats to do 'assessing' and 'reasoning'.[45] The finding that talk is manipulated to achieve action stands in contrast with a view of language as a vehicle for *predication*, for expressing propositions, or to put it simply, for *describing*. This is the prevailing view within the fields of linguistics and aphasiology (Schegloff, 1996a).

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[45] As Connie produces only one assessment term, followed by what seems to be a reason, during 12 minutes and 35 seconds of transcribed conversation with Jane: 'clean m (0.4) °hhh no wrappers' (Appendix 6, page 136, lines 438-439), there is no justification for proposing a *recurring* turn construction pattern of this type in her talk. It is, however, interesting to speculate that this structure too may represent a viable method of turn construction that transcends one individual's (Roy's) repertoire.

As Schegloff (1996a) explains, the notion of predication sets the sentence or clause, with its arguments, at the centre of language use, and dictates that smaller units, 'fragments', be treated as reduced versions of sentences, produced by application of the rules of ellipsis. However, the study of talk-in-interaction shifts the focus to the notion of units, 'turns', which are awarded the status of grammatical completion, regardless of whether they are 'well formed sentences' or 'elliptical fragments', via their *adequacy for the participant* at that sequential point in interactional time. Schegloff calls this concept a positionally sensitive grammar. The way that a participant judges such adequacy relates to the *action(s)* the unit is doing. Given this, Schegloff suggests "It undershoots the mark to insist that language is used not only for description but also for action. In its home environment, it is for action in the *first* instance; it is "description" which is the "also," in its capacity as one type of action." (Schegloff, 1996a: p. 112). The effect on agrammatic talk of a drive to convey action is clearly quite different from the effect of a need, created by a test situation, to predicate. This dichotomy is currently not recognised either by aphasiological approaches to agrammatism, or by clinical approaches to remediation. This issue will be taken up in section 9.4, implications for aphasiology, below.

Findings reveal that both Connie and Roy have devised the *same* turn construction method for doing the action of commenting, but *different* methods for the action of recounting an event. This will be discussed in the sections that follow.

9.1.3 a shared turn construction method: introducing a referential item and commenting on it

As the analysis of conversation has shown, both Connie and Roy have developed the same method of turn construction for doing one particular action – introducing a new referential item to the talk. The establishment of reference is seen as a crucial prerequisite for successful communication, as it is necessary to establish a joint focus of attention on what or who is being talked about (loosely, a 'topic') in order that subsequent comments directed to this entity can be understood (Sacks and Schegloff, 1979; Auer, 1984; Schegloff, 1996b; see also section 3.3.4). The turn construction method they have both developed to do the job of establishing reference – the *only* construction they have in common – involves placing a noun, the referring expression, in *turn-initial* position and subsequently adding a comment. This format clearly has parallels with a distinctive linguistic form seen in normal conversation, the 'referent + proposition' construction (see Chapter 3, section 3.3.4), although the 'proposition' lacks

the grammatical progressivity seen in examples from non-aphasic talk. The noun-initial construction has already been noted to exist in aphasic talk (Bookless and Mortley, 1996), and it is described in detail by Wilkinson et al (2003), who call it fronting of a noun phrase (see discussion in section 3.5.2.2). Studies of non-aphasic talk have concluded that it is the positioning of a referring expression in the turn beginning slot that renders this construction distinctive and accords it its particular interactional function, which is to foreground a noun that is new to the discussion (Keenan and Schieffelin, 1983; Geluykens, 1992; Kim, 1995).

What is it about turn initial position that promotes an 'affinity' (Schegloff, 1996a: p. 64) with the action of introducing a new referential item? Schegloff (1987a: p. 71) refers to turn beginnings as "sequence-structurally important places in conversation". One important aspect of the turn beginning is its projection of the upcoming turn shape and turn type, and thus its projection of what it will take for a turn to be brought to an end (Schegloff, 1987a; Schegloff, 1996a). This makes turn beginnings highly consequential for turn taking, as recipients orient to turn projection to achieve the preferred state of 'one speaker talks at a time' (Sacks et al, 1974). Turn beginning is also a place where important bits of sequential work can be done, such as signalling interruption or misplacement of material (Schegloff, 1987a) or displaying that reference is a problem (Auer, 1984). Auer discusses one technique for establishing reference whereby the speaker treats it as a matter that has to be settled before his or her intended activity can be pursued, in other words as '...a prerequisite for the "activity proper".' (Auer, 1984: p. 632). In German (the language that Auer studies), the technique is achieved via deployment of a standard formula, translatable as 'do you know X', as a 'pre' to the construction conveying the main conversational action. This technique clearly locates the referring expression towards the beginning of the turn.

It seems plausible then, that, for both Connie and Roy, the important bit of work that is establishing reference can profitably be done in turn-initial position, both from the point of view of (i) projection, and (ii) potential problems with reference. Firstly, as summary sections 5.5 (Connie) and 7.4 (Roy) have noted, placing a noun at a turn beginning has the effect of projecting that there is more of the turn to come via the incompleteness of the conversational *action* of commenting at the point at which the noun is produced. This is an extremely strong projection device, since participants in conversation are constantly motivated to address the question "why that now?" (Schegloff and Sacks, 1973: p. 209), and a noun, especially a *new* one, without a subsequent comment clearly signals a turn that is incomplete in terms of action

structure. Thus, the noun provides a strong signal of a turn-in-progress, and acts as a useful turn-holding device. Secondly, in terms of establishing a new referential item, turn-initial position provides for the possibility that any work that needs to be addressed to solving *problems* with reference (there might reasonably be expected to be quite a few, given the nature of aphasia) can be sited *immediately after* the element in question, and before the rest of the turn is attempted. This may be beneficial for Connie and Roy, for whom turn construction itself is a challenge, in that it permits them to 'get out of the way' any potential problems with reference at the beginning of the turn, and thus have an uninterrupted attempt at producing the comment. This minimises the likelihood of a scenario where they might need to repeat and/or revise the whole construction because reference is not clearly established before the comment is delivered, and as a result the recipient is unable to make sense of the talk as a whole.

Although turn-initial placement of the referring expression may be of benefit in the ways described, it is clearly not the case that the recipient *must* respond to the noun before the turn can continue. Both Jane and Di can, and do, choose to let nouns pass without comment, and thus decline the invitation to treat reference as a problem (Auer, 1984), where there is no difficulty in understanding who or what is being talked about. If they do take the opportunity to engage with a noun, then its establishment becomes a conversational action in its own right. This seems to happen often during Roy's conversation with Di. Thus, Di often acknowledges, either verbally or non-verbally via nodding, that she has understood who or what Roy is talking about before he proceeds to talk about it. This behaviour is seen only rarely in Connie's and Jane's conversation, and when it occurs, there is usually some observable trouble with the turn under construction (see for example, Extract 2, page 78; Extract 10, page 99). Roy and Di seem to engage in joint establishment of reference when there is no visible difficulty with Roy's turn (see Extract 18, Extract 19, Extract 21 and Extract 24). Their joint work results in turns with a two-part structure, where the establishment of reference is the presequence (Schegloff, 1990) to the main turn and its business.

In summary, it seems that both Connie and Roy have developed a method of introducing referential items that exploits the inherent interactional power of turn beginnings.

9.1.4 a contrasting turn construction method: giving an account of an event

Connie and Roy have developed very different ways of doing the conversational action of giving an account of an event. When recounting an event, Connie designs her turn

with an initial temporal phrase, followed by an account that contains a verb. The fronting of a temporal element resembles the turn-initial adverbial use displayed by RT, a speaker with agrammatism studied by Bookless and Mortley (1996). Roy, however, uses a turn constructed from a combination of talk and mime, where the mime conveys the core of the event. It seems plausible to suggest that their differing methods reflect their individual language resources. Although Connie is able to manipulate verbs to recount events, she finds it difficult to inflect such verbs for tense. Evidence for this comes both from conversational data and from the clinical test data discussed in Chapter 6. Given this difficulty, the turn-initial temporal construction is designed to achieve temporal reference in an alternative way – the temporal phrase represents an adaptation to the presence of a verb with no accompanying tense morpheme. Bookless and Mortley (1996) noted that for RT, adverbials carried temporal information in the absence of a verb.

Roy, on the other hand, is not able to convey events verbally. As discussed in Chapter 8, he demonstrates an ability to produce a verb with an agent for approximately half of all one-argument structures targeted during testing, but only when the test provides support via provision of a response model. Otherwise his access to verbs is extremely poor and his ability to produce them in sentential structures is severely impaired; more often than not, he cannot produce a grammatical structure at all. His ability to use verbs in conversation is similarly impaired. The three verbs that he does use are not integrated into an argument structure (see, for example, Extract 18, *Ruby or Keith fly*). As a result of this severe difficulty with verbs and argument structures, turn construction is focused on establishing an alternative method of expressing an event. For Roy, this is mime. Temporal reference does not occupy a prominent position in Roy's event-focused construction, as it does in Connie's. This is not to suggest that conveying the timing of event(s) is not important in Roy's talk, but that *verbal* expression of timing does not occur if the event is conveyed *non*-verbally. To summarise, it seems that if a verb can be *spoken* during construction of an event-focused turn, then there is the expectation of temporal reference to be dealt with, such that the absence of tense is marked, or accountable. However, if the information conveyed by a verb in an event-focused turn is presented in a *non-verbal* modality, then

there is no constructional imperative to produce tense verbally.[46]

9.1.5 Connie's agrammatism can 'disappear' in tied talk occupying sequence-initial position

Novel constructions are not the only type of structure available to Connie. She also produces turns at talk that are perfectly grammatical at a sentential or clausal level when considered in terms of a positionally sensitive grammar (Schegloff, 1996a). These types of turns, discussed in Chapter 5, section 5.3, resemble the simple active sentence structures represented in standard grammars of English: *how d'you make them, mum has one, you ate it all*. When Connie produces such an utterance, she does not appear to be agrammatic. The aphasiological literature has long acknowledged the fluctuating nature of a person's agrammatic difficulties at different times and on different tasks (Kolk and Heeschen, 1992; Kean, 1995; Berndt, 1998). The analysis conducted in section 5.3 reveals that it is sequential context which affects the grammaticality of Connie's talk in conversation. Thus, her agrammatism is not visible when she produces a turn that initiates a new sequence whilst being 'tied' (Sacks, 1992) to the immediate prior talk by pronouns. It is hypothesised that the use of a tied term permits Connie to successfully manipulate grammar by reducing the need to produce and integrate into the structure a full noun form, a suggestion first made by Wilkinson et al (2003). In addition, the position of the utterance as the first in a new sequence may be advantageous, since it means that it is minimally constrained in terms of content, and there is, in fact, no pressure to speak at all. Should Connie wish to remain silent, the resulting pause would not be attributed to her failure to respond to a prior turn, for example the first pair part of an adjacency pair, from Jane. The argument is strengthened by the analysis of problems with turn construction in section 5.4, where Extract 11 in particular illustrates Connie's difficulty with producing a second pair part (a self-repair) in response to a first pair part from Jane (an other-initiation of repair). Thus, in Connie's case, the position of a turn in a sequence of turns clearly affects her ability to manipulate grammar within that turn. When engaged in the relatively taxing action of producing a turn that

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[46] Indeed, it seems that 'tense' in the sense of morphological unit(s) with temporal meaning may become redundant when mime is implicated. In Roy's talk, the timing of an event conveyed via talk and mime arises out of the context of the turn as a whole; it is not conveyed by discrete elements. For example, in Extract 23 (page 136), Roy designs his event-focused turn in such a way that he acts out his own personal experience of events in a shop. As the telling unfolds, it becomes clear that events occurred in the past; there is no need for temporal information to be conveyed verbally.

constitutes a second pair part, she struggles, and the turn she produces is not sequentially grammatical.

9.1.6 Roy's talk reveals a unique resource for turn construction

Novel constructions form the backbone of Roy's talk in interaction. There are no sequentially grammatical tied turns in his conversation, as there are in Connie's. However, the analysis reveals that Roy has developed another resource for turn construction – his interactant's talk (see Chapter 7, section 7.3). Sometimes he and Di *collaborate* to arrive at a version of what he means to say – signalled from Di's perspective via use of a tag question and from his by the word *exactly* – but on other occasions he merely makes a retrospective claim on Di's talk by responding with *exactly*. Both techniques have a common result – Di's talk becomes a resource to permit Roy to complete the meaning of his incomplete turn. Although Di's talk cannot be considered an anticipatory completion in the sense described by Lerner (1991; 1996) because Roy's talk does not constitute a sentence-in-progress, Roy's response shows that he treats it as a completion. Nothing comparable to this construction format is seen in the conversation of Connie and Jane. It seems plausible that Roy's problems with progressing a turn to completion, characterised by frequent and lengthy pausing, coupled with his severe difficulty with manipulating verbs and argument structure (seen during both conversation and testing), may create an environment where borrowing Di's talk becomes a beneficial alternative to attempting his own. By comparison, Connie has much less difficulty with taking a complete turn at talk. Thus, there may be no motivation to use Jane's talk as a resource. Roy's and Di's collaborative turn constructions resemble the turn completion joint productions of aphasic speaker Ed and his wife, described by Oelschlaeger and Damico (1998a), which result in Ed's TCU being finished by his wife. Oelschlaeger and Damico suggest that Ed's wife is motivated to engage in turn completion because of a desire to display affiliation, affirming that she is 'in tune' with what he wishes to say, and that Ed is motivated to solicit completions because, although he does not finish such utterances himself, the assumption that he could do so remains intact. In this way, he establishes a perception of communicative competence, whilst actually sharing the turn construction workload with his wife. It seems likely that the same motivations drive Roy's and Di's collaborations.

Obviously, certain felicitous conditions permit this form of turn construction to work for Roy, for example, shared knowledge between himself and Di of what he is

talking about, clear projection of the conversational action he wishes to convey in order to complete the turn, and a willingness by Di to treat Roy's turn-in-progress as something that she will respond to, rather than sequentially delete from the conversation. As father and daughter, they clearly do share a considerable amount of experience and knowledge. In addition, some of the words available to Roy are highly projectable in terms of action structure – *because* and *but*, most obviously. Thus, the conditions that permit Roy to make use of this resource actually arise more frequently in their conversation than might at first be expected. It is interesting to consider if this turn construction phenomenon is unique to Roy's conversations with Di. Is it a method of interacting that they have negotiated into being between them, but that is not visible in Roy's talk with others? Although there is no conversation data available with other family members, there are some short sections of chat between Roy and the tester that can be explored with this question in mind. Obviously, such data is institutional in nature, and thus is not directly comparable with the conversation with Di.[47] Nevertheless, it seems that comparable formats are visible, as Extract 39, below, demonstrates:

Extract 39 Roy/tester June00#1.having a car in London (after TRIP P2-S2-32)

```
01  →  Roy       mu- mind you, u:m (0.6) pruhaps (0.3) London, (0.5)
02  →  Tester    °mm° I think it's (0.4) it's more hassle than it's worth in London
03     Roy       y  ⌈es
04     Tester       ⌊sometimes >isn' it<    ⌈heh     ⌈havin' a car   ⌉
05     Roy                                  ⌊eh-     ⌊yes uh-        ⌋
06  →            e- e- i- i- ixac'ly yeah
```

This extract, which is not unique to the test data, reveals that Roy can, and does, locally negotiate with the tester to accomplish using her talk as an expression of what he means to say in his incomplete turn (line 01) in the same way that he does when interacting with Di. It is interesting to note that Roy and the tester met on only four occasions in total from the initiation of contact to the end of data collection, and so this collaboration arose after relatively little time spent interacting. It is likely that the tester's speech and language therapy training may have contributed to the speed with which the format developed. It seems that this unique collaborative resource for turn construction can occur between Roy and someone who does not share the wealth of family experience and knowledge, and can be talked into being relatively quickly. Exploration of resource

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[47] See Lindsay and Wilkinson (1999) for a discussion of the characteristics of SLT-client interaction.

development over time and with different interactants is an area that would reward further investigation (see Wilkinson, Beeke and Maxim, 2005, for a report of a study exploring the evolution of adaptations from three months to two and a half years post onset of aphasia).

9.1.7 general conclusions

To conclude, talking in *turns* shapes the grammar of both speakers in ways that talking in *elicited sentences* does not. Talking in turns results in the observable *recurrence* of turn construction formats, which if considered in the context of a sentence grammar, would be judged agrammatic. Such 'recognizable turn formats' (Schegloff, 1996a: p. 64) may not constitute standard grammatical structures, but they are used *recurrently* in *specific sequential positions* to achieve *specific conversational actions*. Thus, they constitute what Schegloff (1996a) calls positionally sensitive grammars. It becomes possible for the speaker to orient to such formats when producing turns, and for the recipient to do so in order to parse them and to grasp their import. The result is a systematic 'grammar' that exists despite the agrammatism, and that provides a resource for interaction. The characteristics of the grammars deployed by Connie and by Roy are, therefore, to some extent at least, a product of interactional contingencies and not of brain damage *per se*. Although findings appear to have some commonalities with adaptation theory (Kolk and Heeschen, 1992), the present study concurs with Heeschen and Schegloff (2003), who find that the nature of aphasic grammar is fundamentally collaborative, with both the speaker with agrammatism and the recipient adapting to the local, turn-by-turn demands of the interaction to create a system for mutual understanding. Adaptation theory maintains that adapting involves the aphasic speaker alone in making discrete changes to their output, with behaviours motivated not by mutual understanding in interaction but by damage to the brain's language processing module, conceived of in terms of a psycholinguistic model. It is probably the case that to arrive at such a mutually oriented-to 'alternative' grammar, there is a necessity for regular interaction, such that the speaker and recipient talk into being such a system over time (Goodwin, 1995; Goodwin, 2003a). The development over time of such constructions constitutes an area that is ripe for investigation, and a start has been made by Wilkinson et al (2005)

The fact that, for these two speakers at least, all but one of the construction formats are specific to the individual suggests that residual language resources may also play a part in shaping observable grammatical practices. Although it may be tempting

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to view the elements of language that remain accessible to Connie and to Roy in much the same way as most aphasiologists would view their grammar, that is as a window into damaged language processes, it may be that even in this area, interaction plays a role. Goodwin (1995), when exploring the conversation of Rob (see section 3.5.1), who can only speak the words *yes*, *no* and *and*, asks 'Of all the words in a language, why these three?' (p. 234). In answer, he highlights the interactional usefulness of these words, which permit a broad range of forms of action and meaning to be expressed, and suggests that this may have motivated their continued selection, such that Rob's vocabulary set stabilised on these three words, whilst a few other words that were once available to him (*wine*, for example) were de-selected over time via lack of use. Although for Connie and Roy the picture is clearly more complex than it is for Rob, since they both have many more elements in their respective vocabulary sets, it seems plausible that a similar type of 'selection by use' over time could have shaped the resources we now see them using. Both have been living with aphasia for a considerable amount of time; Roy for 7 years, Connie for 4 years. If this intuitively appealing idea has any validity at all, then the vocabulary set we observe in use may not be a direct result of the particular configuration of brain damage suffered by the individual, but rather a product of both brain damage and the drive to interact, or more specifically to take a turn at talk in conversation.

One possible question that arises in relation to the methods of turn construction discussed here is how much they may be the result of SLT intervention as well as, or rather than, being adaptive methods that have developed spontaneously in response to aphasia. Connie's involvement in the 'Coping with Communicating' project (see Lock et al, 2001) provides some evidence that is relevant to this issue, although any conclusions must necessarily remain tentative. Conversation data collected pre-therapy reveals that Connie was already fronting temporal phrases before intervention began, as can be seen in line 04 of Extract 40, below, taken from a conversation between the project therapist, Connie and Connie's husband, Sam, 14 months after the onset of Connie's aphasia:

Extract 40 Coping with communicating: Connie & Sam pre-intervention conversation

Sam is talking about his and Connie's dog, and how she behaved with the next door neighbour's cats.

```
01      Sam         she used to lick them to death didn't she. (.)
02                  licked them to   ⌈death
03      Therapist                    ⌊awwh::
04  →   Connie      ehm tuh (.) °uh° (1.1) tuh nine years ago °hh
```

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```
05                    ehm (.) tuh (0.2) the dog (0.3) eh died a heart attack
06      Therapist     awwh ⌈that was your ⌈alsatian
07      Connie             ⌊yeah        ⌊yeah
```

This suggests that constructing a turn with an initial temporal phrase is a method developed by Connie herself, in conjunction with her peers. However, it is possible that the degree to which she now uses the construction, and/or the conversational action she uses it for might have been influenced by the interactional therapy she and Sam received. Although fronting was not worked on explicitly, it was noted that Connie appeared to be using fronted temporal phrases more often after intervention than she had previously. It was hypothesised that this apparent change might have been linked to one part of the intervention in particular, where it was suggested to Connie that she might initiate topic more successfully if she was able to indicate this to Sam by using an 'alerter' (the one suggested to her was *by the way*). It was also suggested to Sam that he might want to allow Connie more time to carry out initiation by, for example, using 'passing turns' such as *mm hm*. Whilst there was no evidence that Connie adopted the alerter that was suggested to her, it was noticeable that, after intervention, she regularly initiated topic using fronted temporal phrases (and was given time by Sam to do so). One possibility, therefore, is that Connie's (and Sam's) discussion with the therapist made them more aware of topic initiation as a particular type of conversational action and subsequently, Connie made use of an existing turn format that consisted of fronting temporal phrases to do this action, among others.

The results of this thesis contribute to the CA literature by concurring with the findings of studies of normal talk (Auer, 1996; Ford and Thompson, 1996) that grammar is not the central resource for turn organisation, as suggested by Sacks et al (1974) in their seminal paper on turn taking. In addition, because grammatical organisation is sometimes completely absent from turns explored in the data, and yet the analysis reveals that mechanisms of turn projection and completion are not disrupted, this thesis is able to propose that, in some sequential environments, grammar is not even required to contribute to the convergence of cues for projection; turns can project structure in the complete absence of grammar. In this way, the study of communication disorder is able to advance the understanding of talk-in-interaction, by observing an 'as-yet undescribed' phenomenon (Schegloff, 2003).

9.2 AGRAMMATIC SPEAKERS ADAPT TO TEST SITUATIONS

The analysis presented in Chapters 6 and 8 uncovers several features of the elicited data that are suggestive of adaptations to testing rather than symptoms of agrammatism *per se*. At least some of the adaptations appear to arise out of the collaborative interactional environment that the testing situation creates between tester and testee (Marlaire, 1990; Marlaire and Maynard, 1990; Maynard and Marlaire, 1999; see section 3.6). Although variable performance on testing has long been noted in the agrammatism literature (Caplan, 1987; Kolk and Heeschen, 1992; Kean, 1995; Berndt, 1998), the author is not aware of any studies that have demonstrated the influence of *interactional* factors on the form of agrammatic language elicited by tests.

9.2.1 form of response may reflect adaptation to the test rather than impairment

Both Connie and Roy engage in language behaviours in the testing situation that are suggestive of adaptation rather than symptomatic of agrammatism. For example, Connie makes repeated use of a two argument sentential structure in response to the sentence-level tests, by adding an *optional* second argument to a structure built around a one-place verb. There is no formal grammatical requirement to express a second argument, nor any test requirement to do so. The same tendency is visible in the narrative-level data, although it is not so prevalent. This finding suggests that the repeated use of a second argument may be an adaptive strategy for test situations, which amounts to a template for sentence production. This may be beneficial for someone like Connie whose ability to produce grammatically well formed utterances is impaired, in that it reduces the processing load of the task. It seems highly likely that this adaptation represents a strategic use of knowledge of testing and therapy situations. Although Connie appears to have adopted a strategy for responding to some tests, her performance across all tasks demonstrates consistency; output is overwhelmingly sentential in format, apart from a few novel conversational constructions in the narrative data. This is not what we see happening in Roy's data, however.

Roy's test responses for differing tasks show a high level of performance variation. He approaches the VAST by producing an isolated verb, despite explicit instruction concerning the requirement to produce an isolated verb for one of the two subtests, and a sentence for the other. He therefore treats both subtests as verb access tasks. In comparison, he approaches TRIP as a sentence elicitation task, achieving some success in producing one argument structures. Thus, it is not the case that an inability to

produce sentences could explain his approach to the VAST. This suggests that a level of adaptive variation is possible, even when tests give explicit instructions as to the required format of response. Evidence for variable performance is also seen in the narrative data, where Roy's approach is to produce the types of structures he favours in conversation, thus avoiding the sentential format completely, and producing few verbs. It is not clear, in the light of this considerable task variation, which test results, if any, would constitute a direct reflection of Roy's impairment.

It is worthy of note that for both speakers, TRIP affords an advantage over the VAST in the production of verbs and argument structures. For Connie this manifests as an increase in the complexity of structures (she manages one, two and three argument structures without difficulty) and in speed of response. For Roy, there is an increased ability to access verbs and to construct one and two argument structures (he manages none in response to the VAST, despite approximately half of items targeting simple, one argument structures). This variation appears to be a result of TRIP's administration procedure, which involves the tester modelling each response, picture by picture, whilst the testee merely listens. After all the items have been modelled, the testee is asked to complete the test. Thus, the task encompasses an element of delayed repetition. The purpose is to "clearly establish the expectations of the task and maximise opportunity for the anticipated response." (Whitworth, 1996: p. 13). It is interesting that the procedure not only ensures the target sentence is elicited, it clearly boosts the ability to manipulate grammatical form, such that both Connie and Roy appear less grammatically impaired on TRIP than on the VAST, where instruction only is used to guide response.

9.2.2 response may reflect adaptive strategies for referring to participants in argument structures

Findings for both speakers suggest that form of response may reflect adaptive strategies for referring to participants in argument structures. TRIP sets out to elicit *full* nouns, and the design of the test encourages this; the pictures make it relevant to say who does what to whom. This is reinforced via tester modelling. In this context, both Connie and Roy produce, for the most part, responses with full noun forms such as *man, pig, shoe* etc. The VAST has no such agenda to elicit full nouns. Its pictures mostly depict a single human actor and an object, although occasionally there are two humans, a man and a woman, with one doing something to the other. In this context, Connie's responses mostly contain pronouns and Roy's fail to specify a noun at all; he attempts an isolated verb, and if he runs into trouble he names the objects, but does not attempt to

express arguments. Thus, it appears that the presence of a full form noun phrase in the speaker's response is influenced in some sense by the test; its use does not directly reflect impairment with respect to producing nouns or integrating them into argument structures.

Similar factors appear to operate with respect to the form of utterances elicited by narrative tasks. Narratives with pictures give the speaker the option of establishing reference verbally or non-verbally (via pointing), or omitting reference, if the picture is simple with few events depicted, since it may be enough to comment on what a person is doing to distinguish them from other entities. On such tests, Connie mostly produces sentences with full noun phrases or pronouns, but occasionally omits the noun and points to it instead. Roy produces some nouns verbally, omits some but points instead, and sometimes even omits and fails to point, leaving it to context to make the distinction. All of these variations with respect to how reference is established have a direct effect on the form of Connie's and Roy's narrative output that is not solely attributable to impairment, since the testing situation permits a range of strategies for reference to be used.

Whereas picture-based testing at sentence- or narrative-level requires identification within a *very small* set of *pictured* referential items (often at sentence level there is only *one* item), narrative tasks that do not use pictures, such as the Cinderella story telling, require *verbal* differentiation between a *greater number* of items. In this test situation, Connie produces responses with full form nouns or pronouns, but Roy often struggles to establish reference (see Extract 37 and Extract 38), with the result that his comments on nouns often get abandoned, because it takes so long for reference to be established. This clearly affects the form of his utterances.

Roy seems to have increasing trouble with reference as tests become more complex in terms of number of events needing to be conveyed, and as pictorial support is removed. It might be hypothesised then, that problems with reference in conversation would be pervasive and that he and Di would spend considerable time establishing reference. However, this is not the case for two reasons. One reason is that in conversation the joint establishment of reference, which Roy and Di engage in reasonably often, passes off quickly and smoothly, with Di nodding or minimally receipting the element before Roy continues (there are no examples of her having to seek clarification). This may be because Roy retrieves the nouns that he requires for conversation, the names of objects and people, without great delay or word finding difficulty. A second reason is that, in conversation, Roy has the option to do something

else apart from introduce a referential item and follow this with an account; he is able to comment on his *interactant's* talk, in which reference has already been established. Thus, he often takes up the opportunity to assess and comment on Di's prior talk. For Connie, establishing reference during a sentence- or narrative-level test appears relatively easy, but it can be more difficult during conversation. She tends to encounter word finding difficulty, pausing and self-repairing before she produces the noun she is seeking, and Jane and she do engage in joint establishment of reference where the disruption to progressivity is greatest. Connie introduces a new referential item by fronting it, but refers to an already-established item by using a tied term, a pronoun, in a sequentially grammatical structure. Establishing reference is a vital job, as it is necessary to establish joint focus of attention before comments about an entity can be understood. The fundamental difference between establishing reference during testing and in conversation appears to be that conversation requires the identification of a referential item from a potentially *infinite* set (although this may be somewhat constrained by topic), whereas testing is extremely constrained in terms of reference.

In summary, it appears that these two aphasic speakers adapt the design of their utterances to exploit the variable methods for referring to participants in an event made possible by the format of a test, and its materials.

9.2.3   test data, and ultimately test results, are collaborative productions

Both Connie and Roy engage in interactions with the tester during testing that render responses as collaborative productions (Marlaire and Maynard, 1990) rather than the sole output of the aphasic speaker. This occurs despite the aim of such tests being the non-interactive production of single sentences or monologues. There is evidence of an interactive sequence whereby the aphasic speaker and the tester jointly agree the acceptability of an utterance. This occurs for Connie during the sentence- and narrative-level tasks, and for Roy during the narrative tasks. Furthermore, on sentence-level tasks, Roy (i) deploys intonation as a resource for engaging the tester in production of the utterance, and (ii) offers a comment about a picture or recounts some personal experience related to the event depicted, thus drawing the tester into conversation, instead of attempting an utterance. Both behaviours result in completion of his response becoming a joint venture. Finally, joint establishment of reference occurs during the Dinner Party cartoon strip description and Cinderella story telling, both for Connie and for Roy. As Marlaire and Maynard (1990) discuss in relation to testing children, these findings contradict the presumed relevance to language test situations of a stimulus-

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response model. Such a model assumes that there is no dynamic to the testing process, and that testers are merely 'passive conduits of testing stimuli' and 'waiting depositories' of replies (Marlaire and Maynard, 1990: p. 99), whilst testees merely deliver a response that reflects their underlying level of skill (or in this case, brain damage) in the targeted area.

Certain interactional sequences can have consequences for the structure of the agrammatic speaker's utterance. The sequence to establish reference inserts tester talk, minimally an agreement token, between elements of a single utterance, and could make it appear that the referring expression is produced as a one-word utterance, if a standard grammar were to be used to analyse the data (with no account taken of prosody). This has implications not only for the process of analysis but also for transcription – the utterances that contain an inserted acknowledgement of reference by the tester are only visible because this study has taken a turn-by-turn interactive approach to transcribing and analysing the narratives. Such an approach is not part of an analysis conducted using mainstream methods. This point is taken up in section 9.4, implications for aphasiology, below.

9.2.4   taking a non-sentential approach to sentence-level tests

Connie's test data demonstrates that she does what is required on all tests, i.e. she takes an approach whereby she attempts sentential structures. Roy, however, has a tendency to engage the tester in conversation during sentence-level tests by making a comment about a picture, or by sharing a personal experience of the depicted event, instead of attempting a sentential response. By 'doing conversation' rather than 'doing testing', he is able to use his novel methods of utterance construction, which means that he has access to a greater set of language resources than would be the case if he was attempting a sentential structure. Roy's non-sentential approach to test items is much more common in the VAST than the TRIP data. This may be linked to the fact that he is much less able to do what is required of him during the VAST. With no model to guide his responses, he struggles to produce an isolated verb, and does not produce any grammatical structures at all.

Roy's non-sentential approach results in the tester cueing him – she redirects him back to the task, often using an utterance such as *what's (s)he doing?*. This simplifies the task for Roy before he has even engaged with it, because it gives him information about the expected form of the verb (*-ing*) and it establishes reference for him. As an adaptation to the test environment, taking a non-sentential approach seems to be
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beneficial in that it masks Roy's difficulty with the task, and engages the tester in helping him with the item in question. In addition, it buys him a considerable amount of time before he has to produce the verb. It appears to be the case that for some items, talking about his opinion of the event, or his experiences of it, acts as a semantic cue to the verb itself.

9.2.5 general conclusions

Findings suggest that, for two speakers with agrammatic aphasia, adaptations to testing situations are visibly affecting the form of their test responses. In some instances, test results are interactionally produced phenomena, and not solely a reflection of the speaker's language skills. In other instances, test results are affected by the variable methods of establishing reference made possible by the format of the test, and its materials, or by provision of a modelled response. Such findings concur with those of Heeschen and Schegloff (1999; 2003) for agrammatism, and Schegloff (2003) for communication disorder more generally, in suggesting that language elicited via testing is not a direct reflection of brain-based impairment, but merely another form of talk-in-interaction. By sampling conversation data, we have another 'test' to compare with traditional methods, and we find yet more variation at this level. Both speakers' data reveals great differences between the form of language produced in conversation and elicited by traditional tests. The fact that some of the adaptive strategies found in mainstream test data resemble those of conversation, where interaction clearly motivates language form, points to the 'invisible' influence of interaction on test results (Marlaire, 1990).

9.3 THE RELATIONSHIP BETWEEN CONVERSATIONAL AND TEST GRAMMAR IS NOT STRAIGHTFORWARD

The comparison of conversational grammar with that of elicited test data for two speakers with agrammatism reveals two very different qualitative profiles. Analysis of Connie's elicited grammar at the sentence- and narrative-levels highlights a basic orientation towards producing standard grammatical structures, specifically sentences. Conversation data, however, reveal turn construction formats that cannot be profitably compared with the sentential, clausal or phrasal elements of a standard grammar; they represent instead novel constructions, which have an affinity with the conversational actions that they are designed to convey. It is the interactional contingencies of taking a

turn at talk that shape these constructions. Connie's conversation also contains sequentially grammatical constructions. These are such that she can, on occasion, appear not to be agrammatic at all – not only is syntactic structure 'normal', morphology is too. To summarise then, for Connie, clinical testing uncovers qualitatively different grammatical forms to those she deploys in the habitual real-life language situation of conversing with a friend. In her case, the clinical assumption that narrative-level testing elicits data that most closely resembles everyday language is proved wrong. The narrative data reveals a preponderance of sentential structures, whereas her conversation is structured around novel constructions, with the occasional sequentially grammatical utterance. It is important to note that it is not the case that structures of the novel type are absent from Connie's narrative data. A few examples can be uncovered, but only if the process of data analysis is radically different, and takes an interactional approach. The test environment in which we learn *least* about her real-life grammatical ability is that of TRIP and the VAST, the *sentence*-level tasks, where all elicited utterances are focused on sentential form.

It is not just the case that mainstream clinical methods fail to uncover interactional structures, but also that they ascribe to Connie a severe morphological deficit. The finding that she is able to produce sequentially grammatical utterances with unimpaired morphology in conversation, given certain sequential conditions, is quite a surprise. This is because, clinically, one assumes that conversation is the most complex language task of all. Therefore, a severe morphological problem on testing is expected to affect conversation to the same or greater degree, given the complexity of conversational language use. Clearly this is not the case for Connie.

Roy's profile could not be more different. The sentence-level test data is the only data set that reveals anything about his ability to produce sentential structures. The analysis of the narrative-level data reveals structures built using the same novel methods as in conversation; his response to the narrative tests is not focused on sentential form at all. It is important to stress that the novel construction formats in the narrative data are only revealed if the analysis takes a similar form to that applied to the conversation data, and thus describes the phenomena that exist, rather than looking for standard structures. If a sentential analysis were to be performed on Roy's narratives, then a wealth of potential information about recurring utterance construction formats would be lost. This may lead a clinician to believe that his grammatical difficulties were so great as to have a severe impact on his ability to communicate with his family. The conversation with Di clearly demonstrates that this is not the case, revealing as it does systematic methods

of turn construction that constitute recognisable turn formats, or a 'grammar', to which the participants orient in order to achieve mutual understanding.

Thus, there is great variation in what the tests reveal about the grammar of these two speakers. Although sentence-level tests *do* tap sentential grammatical skills for both speakers, narrative-level tasks cannot be relied upon to do the same – Connie's narrative data reveals sentential structures but Roy's does not. With the right analytical tools, the narrative-level data can reveal interactional constructions, but the amount of these that occur in the narratives varies for each speaker – for Connie, only a few interactional constructions are found, whereas for Roy, all narrative structures are of this type. Sampling and analysing conversation seems to be the only reliable way to see the range of such construction types functioning in the environment for which they are produced, a series of turns at talk in conversation.

What of the fact that both Connie and Roy share the same diagnostic category of aphasia? Although it has always been acknowledged that the category of agrammatism is broad, and that variation between individuals is great (see Kean, 1995 and Berndt, 1998, for an overview), it has been assumed that tests provide a window onto the impairment, such that the grammatical characteristics revealed by testing represent the *reality* of what agrammatism is for the individual. The findings of this study suggest otherwise, highlighting as they do that interaction shapes the form of agrammatic grammar in one way, whereas testing can shape it in another, very different, way. The implications of this will be discussed below.

9.4 IMPLICATIONS FOR APHASIOLOGY

Most aphasiologists approach agrammatism as an internal mental state, to be explored via elicitation of grammatical structures and explained by comparison with a sentence grammar. Whilst this approach has done much to further our understanding of the condition, it cannot present us with a complete picture if, as this study has shown, characteristics of the habitual real-life grammar of a speaker with agrammatism can be seen to arise at least in part as a result of interactional contingencies. Moreover, the mainstream aphasiological approach places the sentence, with its verb and arguments, at the heart of the enquiry, and treats smaller units as 'fragments' or reduced versions of such sentential, predicative units. However, the reality, at least for the two agrammatic speakers whose talk has formed the basis of this investigation, is a unit to be understood in terms of the generic issue for interaction: 'why that now?' (Schegloff and Sacks,

1973: p. 209). This implicates the *action* that the unit is doing (Schegloff, 1996a). If the action that the person is doing with their talk is placed at the centre of attention, it becomes clear that 'recounting an event' (with its emphasis on predication) is only one amongst many actions which are undertaken in talk-in-interaction. Others that have come to light in the data examined for this study are 'assessing', 'reasoning' and 'commenting'. Schegloff (1996a: p. 113), with reference to normal, non-language disordered talk, states "There is every reason to suspect that grammar for talk implementing action is quite different from grammar for talk expressing propositions.". A comparison of grammar observed across Connie's and Roy's talk in interaction and elicited language seems to suggest that we should suspect the same to be the case for speakers with agrammatism.

9.4.1 implications for the assessment of agrammatism

In terms of assessment, the implications are two-fold. Firstly, the findings suggest that the assessment of grammatical constructions in conversation is just as important as the traditional elicitation and analysis of sentential structures, and should become a routine part of any investigation of agrammatism if one wishes to gain a more complete picture of an individual's ability to impose structural order on their talk, and to explore the implications of agrammatism for successful interaction with others. Secondly, any analysis of grammatical structure must undertake to identify and describe interactional constructions as well as grammatical phrases, clauses and sentences. In order to do this, new analytical tools need to be developed, centred around exploration of the turn and its elements, instead of the sentence, and its verb and arguments. This study represents an attempt to identify what such an analytical approach might involve. It seems that useful information can be uncovered by considering (i) the successive elements that make up turns, and (ii) conversational action(s), i.e. what turns are designed to do. In terms of the elements used to build turns, it can be informative to explore in a functional way what kinds of words and/or fixed units these are, for example connectives, adjectives, nouns etc. In terms of turn construction, such an analysis might look for recurring formats by considering (a) which elements come *first* in turns, since turn beginning has emerged from the data as a structurally important position, and (b) the action structure of turns. The aim then, would be to take an 'inventory' of the turn, to discover what actually occurs within it, and in what order and configuration (see Schegloff, 1996a: p. 99, 103-104). This study has made a start; clearly considerable further research is necessary. Once more turn construction methods have been explored, it will be possible

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to consider whether there is a finite set of possible techniques employed in the conversation of (English) agrammatic speakers with non-language impaired interactants, or whether each partnership develops individual methods, rendering the set infinite (see section 9.6, limitations of the present study).

A broader implication for the assessment of agrammatism, and possibly of aphasia in general, arises out of the observation that both Connie and Roy deploy a range of conversational actions; they do not merely recount events. Current assessment techniques focus solely on eliciting an event with a verb and arguments. An individual's ability to express opinions – to say what they think of somebody or something and why – is not considered. Yet clearly these types of conversational actions are at least as important, if not more so, to real-life interactions as conveying what happened/will happen to someone or something. To make this observation is not to suggest that decontextualised tasks should be invented to explore such actions as assessing and reasoning, since they are fundamentally interactional forms. However, analysts should consider them and accord them the same status as recountings of events when analysing grammar *in conversation*.

9.4.2 implications for interventions that target agrammatic impairments

In terms of intervention, the findings suggest that it will be important to focus on 'real' grammatical problems that arise in the conversations of the interacting partnership, since these may not be the same issues that arise from an analysis of elicited language. To give an example, for Connie, analysis of test data reveals that manipulation of morphology, particularly tense and agreement markers, is a severe problem. This finding may lead a clinician to consider a programme of intervention that targets verb tense and agreement markers. However, in conversation, temporal reference is often conveyed via a turn-initial temporal element, whilst the verb that follows remains uninflected for tense. This method is unproblematic for the participants, and thus the omission of tense markers is not an interactional impairment, but rather a test-based phenomenon. In a similar vein, Roy's test data shows a severe problem with verb production. Based on this information, clinical intervention would be likely to focus on improving his ability to produce verbs. In conversation however, he mostly conveys verb-related information via an alternative means, mime, and thus circumvents his inability to produce verbs. Thus, findings concur with those of Wilkinson (1995b; 1999b) who noted that utterances in conversation which contain aphasic symptoms may not lead to interactional problems. The mismatch between what appears problematic to

the clinician on testing and what is treated as problematic by the interactants in conversation may be a contributing factor to the oft-noted lack of generalisation of sentence-level interventions to everyday language use (Byng and Lesser, 1993). For generalisation to occur there must be motivation to carry over skills learned in the therapeutic environment. If the problem identified is merely a phenomenon of the testing process, then the assumed motivation may be entirely absent.

To address this issue, Wilkinson (1999b) suggests that intervention should target problems which are regularly evident in conversation, using tools such as the Conversation Analysis Profile for People with Aphasia (CAPPA; Whitworth, Perkins and Lesser, 1997) to ascertain from speakers with aphasia and their conversational partners how widespread and problematic such problems are for them. Therapy can then focus on making the conversational partnership more aware of such problems, via video feedback, and guiding the practice of alternatives. A structured programme for interactional therapy (Wilkinson, Bryan, Lock, Bayley, Maxim, Bruce and Moir, 1998; Burch, Wilkinson and Lock, 2002; see also the overview of Connie's therapy in section 9.1.7) is available in the form of the SPPARC resource pack (Lock et al, 2001). An interactional approach to therapy for agrammatism might include using techniques of SPPARC with the aim of facilitating an individual's use of the types of systematic turn construction methods uncovered by this study, rather than the sentences of mainstream therapy for agrammatism, and helping the conversational partner to recognise and respond to such constructions as unconventional but valid methods of conveying social action. This type of therapy may prove suitable for speakers who have a small set of accessible words, with output restricted to one or two word combinations, who would benefit from support to take longer turns at talk, rather than people like Connie and Roy, who have developed their own structure over time, and whose conversation is, for the most part, highly successful in terms of mutual understanding. It is the author's intention to explore such therapy once an analysis of turn construction formats used by other speakers has been undertaken. The only other type of therapy for agrammatism that has, to the author's knowledge, taken an adaptive approach to grammar is Reduced Syntax Therapy, designed for German-speaking agrammatics (Springer et al, 2000). REST sets out to teach simplified structures stripped of morphology, such as *yesterday granny station* and *wash car* (see discussion in section 2.4.4). Further exploration of this approach may prove useful in an attempt to develop an interactional therapy for agrammatism, not least because it may yield useful insights with respect to how aphasic

speakers and their families respond to the teaching and use of 'abnormal' grammatical structures.

Currently, an over-emphasis on conveying events pervades approaches to intervention for agrammatism, as well as methods of assessment, as discussed in section 9.4.1, above. Without exception, interventions aim to improve skill with respect to the sentence, its verb and arguments. Interestingly, REST, although it is focused on adaptation, is no different in this respect, as the "main verb and its obligatory complements" are at the heart of structures taught (Springer et al, 2000: p. 288). The findings of this thesis are possibly quite unique in showing that giving an opinion or displaying one's reasoning about something occurs alongside conveying what one did yesterday or will do next week in the real-life conversations of aphasic speakers. It may be the case that conversational actions such as assessing and reasoning actually take on elevated importance for a person with aphasia, precisely because the communication difficulties encountered make it harder to be an active member of society. Influencing people and the environment is highly dependent on being able to express one's opinions, and in this regard being able to say what a person did yesterday or will do tomorrow may be less important. The implication is that intervention needs to be able to help people to achieve the conversational actions of assessing, accounting and reasoning, as well as recounting an event. The interactional therapy for agrammatism sketched above could easily promote the use of structures designed to achieve a range of conversational actions, not just predication.

9.5   A REVIEW OF THE METHODOLOGY

One of the aims of this thesis was to explore the utility of CA as a tool for investigating agrammatism. This section will address the aim by evaluating the positive and negative aspects of using CA to analyse agrammatic data, as evidenced by the work herein.

CA is clearly a powerful tool for exploring agrammatism because it reveals *order* and *structure* in the talk of two people with agrammatic aphasia that may go unremarked if an analysis were based upon standard grammatical units of language. However, CA does not merely reveal systematicity to the analyst, it permits the analyst to see the organisation that is oriented to by the aphasic speaker and their conversational partner. In other words, it uncovers the habitual workings of grammar for the interactants in the real-life context for which it is produced, a series of turns at talk. Furthermore, CA reveals the centrality of *action* to interaction, and thus to grammar.

We see that the recurrent turn constructions that CA makes visible are associated with specific conversational actions, and thus, a level of organisation is revealed in data which other approaches would treat as messy and unordered. In addition, CA provides the tools necessary to analyse the turn, via the concepts of turn position, particularly turn beginning, and what constitutes a grammatical element of talk. Thus, without CA, elements such as fillers, fixed units and non-verbal behaviours would be dismissed as performance factors or labelled 'non-productive' in terms of grammar. However, a CA approach is able to show how such elements have consequences for the design of a turn at talk, and therefore function as parts of an interactional grammar.

The area in which CA falls short as a tool for examining agrammatism is the investigation of the underlying impairment. Applying CA to the phenomenon of agrammatism does not afford the author any insight into what might constitute the 'real' impairment for Connie or Roy, either in language processing terms or in relation to a standard set of grammatical rules for the English language. However, this was never an aim of the study. CA is best judged in terms of what it can add to our understanding of the impact of aphasia on habitual talk-in-interaction, not what it fails to tell us about the nature of agrammatism as a brain-based injury. Given that a CA approach to grammar does not apply the concepts of a pre-specified model of grammatical processing, it might appear that it describes practices at the level of the turn that do not in themselves constitute 'grammar', and that they are merely communicative strategies reflecting a level of pragmatic competence that permits compensation for the absence of grammar. The response to this is two-fold, and implicates both an understanding of how a qualitative methodology creates theory and of what grammar actually is. Firstly, CA treats grammar as a resource for talk-in-interaction, but this is not the same as taking an atheoretical approach to grammar. In a qualitative methodology, theory arises out of the practices that are visible within real data, since the approach is data-driven. Qualitative methodologies do not involve the creation of a theory via a distillation of results from experimental studies, which is then applied in a top-down fashion to other data. Thus, CA aims to examine talk-in-interaction to uncover the reality of what grammar actually is for speakers of a language, with a view to developing a theory that has explanatory power for habitual talk. Because of the nature of the task, a grammar for conversation remains hugely underspecified at this stage. Secondly, a grammar, in the basic sense of the word, is a system for the organisation of words into structures which convey meaning over and above the meaning of the individual words. Since it is possible to define the recurring turn formats of both Connie's and Roy's conversation in exactly

this way, it is also possible to conceive of them as a grammar, just not one defined in terms of sentences, clauses or phrases, the elements we usually associate with grammar. The findings of this study suggest that it may be possible to create a system for organising words into larger units conveying more than the sum of the individual parts using a number of different methods, of which a sentential approach is but one.

9.6   LIMITATIONS OF THE PRESENT STUDY

The findings of this thesis are limited by the fact that the analysis addresses the data of only two individuals with agrammatism. Clearly a larger collection of interactional turn construction practices is warranted, to extend knowledge of the deployment of formats and heighten the robustness of the analytical account, and also to permit the issue of commonality of methods across conversational partnerships to be addressed in more depth. In addition, an extension of the comparative profiling of individuals in terms of conversational and test grammar is implicated, in order to permit the exploration of patterns at this level. The thesis is only able to hypothesise at a general level that severity of agrammatism may be a factor, given the great differences between the profiles of the two individuals studied.

The thesis has used a standard grammar of sentences as a comparison point for a CA description of grammar. Whilst this can be justified because the majority of approaches to agrammatism use a sentence grammar when characterising spoken output, it is a limitation of the study that it does not attempt to exploit the methods employed by other branches of linguistics, such as pragmatics or sociolinguistics, to describe structural phenomena. As Garman argues "the insufficiency of 'the code model'...is not a matter of 'linguistics' vs some more adequate, more inclusive frameworks...linguistic techniques have much to offer" (Garman, 1994: p. 492). Embracing other methods may shed light on issues such as whether turn construction types documented in aphasic conversation data constitute an exaggerated or extreme form of non-standard grammatical usage by normal speakers, as is suggested by the noted similarities between the noun-initial construction found in this data and topic-comment structure. Corpus studies provide an obvious source of insight into the nature of the language of normal speakers.

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9.7 FUTURE RESEARCH

Many areas for future research, both theoretical and clinical, have been discussed throughout this chapter. The following constitutes a summary of these.

a) theoretical knowledge of turn construction in agrammatic aphasia:

- analyse additional conversational partnerships – identify individuals' methods and begin to compile a picture of the methods that are common across partnerships
- explore profiles in terms of conversation and test data for additional aphasic speakers – are there patterns? do they relate to residual language resources?

b) assessment of agrammatism in conversation:

- refine the method developed for this thesis of taking an 'inventory' of elements within the turn in terms of nature and position
- develop the method into a tool for use in the clinical setting

c) interactional therapy for agrammatism:

- use knowledge of turn construction methods to identify a set of key interactional constructions that could become the focus of such therapy
- devise a mechanism of delivering interactional therapy for agrammatism such that a partnership could be made aware of current turn construction formats, introduced to new methods, and/or encouraged to expand on old methods
- pilot the therapy on one couple in such a way as to monitor efficacy via change in conversational structures, and evaluate methods for therapy delivery in order to refine the process for a full-scale therapy trial

The author believes that there is much to recommend the further application of CA to agrammatism, not least because of the potential of interactional therapy in an area that has long been dominated by decontextualised approaches. The drive to help aphasic speakers become more 'correct' in their use of grammar persists despite the fact that linguistics has long acknowledged that non-language disordered people do not always speak in sentences, and CA studies have demonstrated that predicative grammars are

not fully able to capture the structural phenomena present in everyday conversation (Schegloff, 1979; Schegloff, 1996a). As Wilkinson explains:

"While therapy targeted at aphasic conversation is hugely underspecified at this stage in our knowledge of aphasic talk-in-interaction, this type of therapy is an attractive possibility for creating functional change in the everyday contexts where problems are most consequential and language use most meaningful for people with aphasia and their conversational partners." (Wilkinson, 1999b: p. 341)

10 References

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Appendix 1: participant information for ESRC project R000222754 An investigation of aphasic syntax for conversation

Research Project: An Investigation of Aphasic Syntax-for-Conversation
Principal Investigator: Dr Ray Wilkinson
Researcher: Ms Suzanne Beeke

I would like to invite you to participate in a research project investigating the syntax (sentence structure) used by people with aphasia (language difficulties) following a stroke. We are investigating how syntax is used by people with aphasia in conversation. We are doing this by video recording conversations of people with aphasia and their family or friend(s) at home. We will then analyse them to see how syntax is used. This is important because many people with aphasia have difficulty with syntax. However, there has been very little research to find out how syntax is used in conversation.

You will be visited by the researcher (Ms Suzanne Beeke, a Speech and Language Therapist). She will visit you twice. On the first visit she will answer any questions you have about the project and, if you wish to take part in the project, she will ask you to sign a consent/copyright assignment form. You will then do some short tasks from published speech and language therapy tests. She will also leave a small video camera with you and she will show you and your family member or friend how to work it. You will be asked to video some conversations involving you and your family member or friend (at least 20 minutes of conversation in total if possible - this can be made up of more than one conversation). About a week later she will visit you again to collect the tapes and take away the video camera.

You will be visited in your home at a time which is convenient for you. You will not have to travel. The video and transcripts will be treated confidentially.

You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. Taking part in this project will not deprive you of any speech and language therapy management you are currently receiving or may be receiving in the future. Nor will it affect your attendance at the stroke group.

All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the University College London/University College London Hospital Committees on the Ethics of Human Research.

Dr Ray Wilkinson, Principal Investigator

Appendix 2: consent and copyright form

Research Project: An Investigation of Aphasic Syntax-for-Conversation
Principal Investigator: Dr Ray Wilkinson
Researcher: Ms Suzanne Beeke

Please read the questions and tick 'yes' or 'no':

1. Have you read the information sheet about this study?   **Yes/No**
2. Have you had an opportunity to ask questions and discuss this study?   **Yes/No**
3. Have you received satisfactory answers to all your questions?   **Yes/No**
4. Have you received enough information about this study?   **Yes/No**
5. Do you understand that you are free to withdraw from this study
   * at any time
   * without giving a reason for withdrawing
   * without affecting your future therapy/medical care   **Yes/No**
7. Do you agree to take part in this study?   **Yes/No**

Copyright assignment:

Date: _____   (please print date)

The Author:_____   (please print name)

Of: _____

     _____

                                   (please print address)

has agreed to assign the entire right, title and interest of the copyright existing in the conversations as identified in the schedule below (see table) to **University College London.**

IN WITNESS of which this Assignment has been signed by the Author the day and year first above written.

SIGNED by the Author:_____

               (signed by the next of kin if the person has difficulty in writing)

Schedule (to be completed by the researcher):

| Conversation (state participants)	Code	Date recorded

Appendix 3: written instructions for operating the video camera

SETTING UP

Switch on the camera at the wall.

Turn the camera **ON** by flicking the black switch on the right hand side of the camera (marked **POWER**) towards the front of the camera. You should now be able to see an oblong **RED** button, beside the switch.

**A red light shows on top of the camera when it is on.**
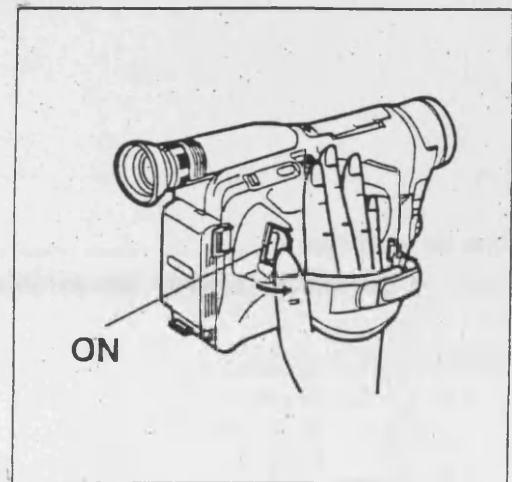
RECORDING

Check that the camera is **ON** by looking through the **VIEWFINDER**. You should be able to see a picture.

If you leave the camera on for a long time without recording it will AUTOMATICALLY switch itself off. If this happens you will see a blank gray screen instead of a picture. To turn it on again flick the black POWER switch first towards the back of the camera (OFF), and then immediately towards the front again (ON).

To **RECORD** firmly press the **RED** start/stop button which you can see behind the black **POWER** switch.

Be sure to press this button ONCE only.
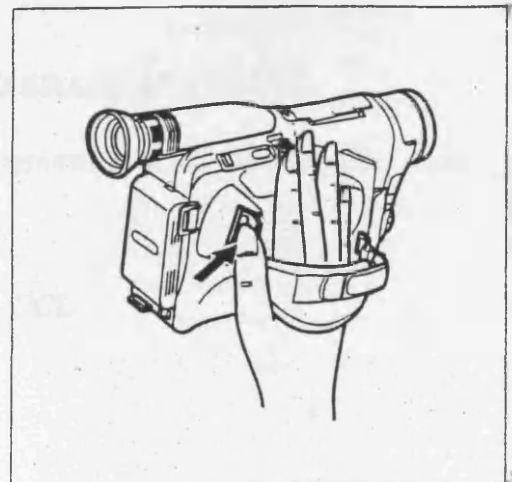
Check you are recording by looking for the letters **REC** at the top right hand side of the picture (look through the viewfinder).

STOPPING RECORDING

When you have finished recording press the **RED** start/stop button again.

Check you have stopped recording by looking for the word **PAUSE** at the top right hand side of the picture (look through the viewfinder).

WHEN YOU HAVE FINISHED

When you have finished all your recordings switch the camera off by flicking the black **POWER** switch towards the back of the camera (**OFF**).

Switch off at the wall and unplug.

TAPING CONVERSATIONS

Think of a time and place when you and .... regularly sit and have a chat. Perhaps this is when you have a cup of tea and catch up on the day's events, or whilst you are having a bite to eat.

These times might be:

The place you choose to sit is:

Try to record your conversation at these times. The video camera has been set up so that you are both in the picture when you sit in your usual spot.

It is important that you are both in the picture, so don't move your seats.

When you do have your chat, all you have to do is press the red button to start recording. Leave the camera running – either until you have finished your chat, or it switches itself off when the tape runs out.

There is 60 minutes of tape available – please try to fill it up, either on one long chat or several shorter ones.

DO NOT REWIND THE TAPE OR TRY TO ERASE ANYTHING.

Should you want a certain part of the chat to be ignored, just tell the researcher about this when she collects the camera from you.

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Appendix 4: outline of test aims, materials and procedures

PSYCHOLINGUISTIC ASSESSMENTS OF LANGUAGE PROCESSING IN APHASIA (PALPA; KAY, LESSER AND COLTHEART, 1992)

A battery of tests based on a cognitive neuropsychological approach to language processing, which is designed to pinpoint the modules and/or pathways that have been disrupted by aphasia. Subtest 53, spoken picture naming, requires the person with aphasia to name 40 black and white line drawings of objects, such as *comb, bear, horse* and *mountain*. Materials are controlled for word frequency.

THEMATIC ROLES IN PRODUCTION (TRIP; WHITWORTH, 1996)

An assessment of word retrieval at the sentence level. It requires an aphasic person to describe line drawings designed to elicit firstly, single nouns, and then sets of sentences where the nouns occur in argument structures, with pictures designed to elicit either one, two or three verb arguments (for example, *the girl is crying, the man is chasing the car, the children are giving the hat to the man*). The test has two sections, and each contains 17 single nouns, followed by seven or eight one-argument, 10 two-argument and five three-argument structures. The person with aphasia is required firstly to listen to the clinician producing each noun and sentence in section one (items progress in order from single nouns through to one-, two- and finally three-argument structures), whilst looking at the appropriate picture. Once this modelling is complete, the person with aphasia is asked to describe each picture in section one in turn. This process is then repeated for section two. Thus, the test procedure makes use of delayed repetition to elicit the target response. Each successive model is 'interruptive' in terms of retention of information about the prior item. The TRIP aims to determine whether a word retrieval deficit is due to a word-level anomia or a sentence-level deficit in assigning thematic roles. Results also permit an analysis of the influence of verb argument structure on verb production. According to the TRIP handbook, the first mention of a verb demarcates the sentence to be scored, regardless of whether the speaker goes on to self-correct the sentence after producing the verb.

THE VERB AND SENTENCE TEST (VAST; BASTIAANSE, EDWARDS AND RISPENS, 2002)

A recently published English-language version of the Dutch assessment, WEZT (Bastiaanse, Maas and Rispens, 2000). The two subtests discussed here – *verbs as single words*, and *verbs within a sentence* – are taken from a pilot version of the VAST, kindly given to the author of the thesis by Susan Edwards prior to its publication. The subtest *verbs as single words* requires the person with aphasia to produce a single action word to describe a black and white line drawing of a person doing an activity such as *frying, skating*, or *smoking* etc. The subtest *verbs within a sentence* requires the person to describe a black and white line drawing by producing a sentence which best describes the action depicted. Each subtest contains 40 items. All 80 target verbs are different, selected by the test's authors to permit analysis of verb transitivity and frequency, and sentence grammaticality.

THE COOKIE THEFT PICTURE DESCRIPTION (FROM THE BOSTON DIAGNOSTIC APHASIA EXAMINATION, BDAE, 3RD EDITION; GOODGLASS, KAPLAN AND BARRESI, 2001)

A black and white composite picture depicting a mother and two children in a kitchen. The mother is drying dishes whilst the sink overflows at her feet. The boy is balanced precariously on a stool attempting to steal cookies from a jar on the top shelf of a cupboard, whilst the girl looks on, holding up her hand for a biscuit. The speaker has sight of the picture whilst describing it.

THE DINNER PARTY CARTOON STRIP DESCRIPTION (FROM FLETCHER AND BIRT, 1983)

A series of eight black and white cartoon pictures, depicting a dinner party where the pet cat steals the fish intended for the guests. Taken from English language teaching material. The dinner party was first used as a task for speakers with aphasia during the Reading Aphasia Project (Edwards, Garman and Knot, 1992). The speaker has sight of the pictures whilst telling the story.

THE CINDERELLA STORY TELLING

This fairy tale was originally promoted as a procedure for collecting a language sample from aphasic speakers by Saffran, Berndt and Schwartz (1989). After looking through colour pictures as a reminder of key events in the tale, compiled for the purpose of this thesis from a children's book, the speaker is asked to retell the story from memory. Thus, the task is completed without the person having sight of the pictures.

Appendix 5: transcription notation

→ arrows alert the reader to talk that is discussed in the analysis

⌈ a large left-hand bracket links an ongoing utterance with an overlapping
⌊ utterance or non-verbal action at the point where the overlap/simultaneous
   non-verbal action begins

⌉ a large right-hand bracket marks where overlapping utterances/simultaneous
⌋ non-verbal actions stop overlapping

= an equals sign marks where there is no interval between adjacent utterances

(.) a full stop in single brackets indicates an interval of less than one tenth of a
     second in the stream of talk

(0.6) a number in single brackets indicates the length, in tenths of a second, of a
       pause in the talk

oh: a colon indicates an extension of the sound or syllable it follows (more colons
     prolong the stretch)

. a full stop indicates a stopping fall in tone, *not necessarily the end of a
   sentence*

, a comma indicates a continuing intonation

? a question mark indicates a rising inflection, *not necessarily a question*

! an exclamation mark indicates an animated tone, *not necessarily an
   exclamation*

but- a single dash indicates a halting, abrupt cut-off to a word or part of a word

↑↓ marked rising and falling shifts in intonation are indicated by upward and
    downward pointing arrows immediately prior to the rise or fall

stress underlining indicates emphasis

yes italicised text between braces and positioned below talk represents a
{slow} description of the prosodic quality of the talk

°no° degree signs indicate a passage of talk which is *quieter* than surrounding talk

TALK capital letters indicate talk delivered at a *louder volume* than surrounding talk

heh indicates discernible aspiration or laughter (the more hs the longer the
     aspiration/laughter)

fu(h)n an 'h' in single brackets marks discernible aspiration or laughter *within* a word

°h discernible inhalation (the more 'h's the longer the inhalation)

>talk< lesser than/greater than signs indicate sections of an utterance delivered at a *greater speed* than the surrounding talk

⌈yes italicised text in double brackets represents a gloss or description of some non-
⌊*((nods))* verbal aspect of the talk, and is linked to simultaneous talk with large brackets

(dog) single brackets containing either a word, phrase, or syllable count (if utterance is very unclear) mark where target item(s) is/are in doubt

/dɔd/ paraphasias are transcribed between slashes, using an IPA font

nŏ symbol above a vowel that indicates its short duration

tuh an alveolar click, which functions as a filler, *not an indicator of frustration*

tsk an alveolar click indicating frustration, a 'tut'

* the point at which the aphasic speaker's gaze is directed towards the tester (used in sentence-level test data transcripts only)

Gaze transcription notation (based on Goodwin, 1981, p 52)

The gaze of the *speaker* is always marked <u>above</u> the talk, and that of *recipient* <u>below</u> it:

Connie Jan00.VAST#3(i)21 cycling

```
01        Connie   ⌈(1.2) she's, (1.7) cycle, (0.3) on the:, (1.6)  ⌉
                   ⌊((studies picture))                               ⌋
02   →             ...t--------------------------------------------------------------
                   ⌈(0.6)                                              ⌉⌈(1.3)
                   ⌊((opens and closes extended hand quickly, twice in succession))  ⌋⌊((...holds hand still, T nods))
03        tester   yep-,=       ⌈=tha's fine,                          ⌈cycling. yeh.
     →    C gaze   -------------,,
04        Connie                | °yeh-°
                   ⌊((flicks open extended hand then takes hold of page))      ⌊((begins to turn page))
```

The movement bringing one party's gaze to the other is marked with three dots (see start of line 02 for Connie's gaze moving towards the tester). The precise place where gaze reaches the other is marked with the initial of that person (here 't' for tester, see line 02). The movement withdrawing gaze is indicated by two commas (see end of line 03 for Connie withdrawing gaze as the tester says '...tha's...'). Gaze itself is indicated by a dashed line.