Final Year Project

Agrammatic Aphasia in English-Speaking Patients

A Study on Verb Inflection and Verb Related Forms

By Marta Masa Formoso

Supervisor: Dr. Milagros Fernández Pérez

June 2014
Agrammatic Aphasia in English-Speaking Patients:

A Study on Verb Inflection and Verb Related Forms

Conducted by Marta Masa Formoso

Supervised by Dr. Milagros Fernández Pérez
Acknowledgements

Special acknowledgements to Dr. Milagros Fernández Pérez for her supervision and support, and to CHILDES and AphasiaBank team led by Mr. Brian MacWhinney for granting access to and permitting the usage of the materials in their database for the purpose of this study.
# TABLE OF CONTENTS

*Abstract* 1

1. INTRODUCTION 1

2. AIMS OF THE STUDY 2

3. THEORETICAL BACKGROUND 2
   3.1 Broca's Region 3
      3.1.1 Broca's Region Physical Description 4
         3.1.1.1 Anatomy 4
         3.1.1.2 Histology 5
         3.1.1.3 Broca's Region Connections with Other Areas 5
      3.1.2 Functions of Broca's Region 7
   3.2 Agrammatic Aphasia 9
      3.2.1 Aphasia 9
         3.2.1.1 Types of Aphasia 9
      3.2.2 Agrammatism 12

4. PREVIOUS STUDIES 14

5. DATA ANALYSIS 21
   5.1 Data Collection 21
   5.2 Participant Wright201a 22
   5.3 Participant Wright205a 24
   5.4 Participant Scale10a 27
   5.5 Participant Scale18a 30
   5.6 Joint Analysis 34

6. CONCLUSION 39

7. BIBLIOGRAPHY 45

8. APPENDIX 48
Abstract. Agrammatism has been the object of study of different fields for centuries now. As an abnormal manifestation of language, its study can provide interesting information about language itself, its organisation and production. Far more than what its name indicates, agrammatism is a complex phenomenon that does not discard grammar but rather manifests it in ways that differ from the norm. This study focuses on verb inflection in English agrammatism, more specifically -ing inflection, extracting conclusions that point towards a feature-checking impairment in certain verb related aspects, partly coinciding with previous studies carried out by Arabatzi and Edwards and Faroqi-Shah and Thompson, also summarised here.

Key Words: Broca's region; Aphasia; Agrammatism; Verb inflection; Feature-checking procedures.

1. INTRODUCTION

The study of language in all its complexity has been the aim of philosophers, psychologists, linguists and doctors for centuries now. However, very often, particularly from a linguistic point of view, the manifestations of language considered for canonical study are those that could be labelled as normal, which follow the grammatical rules of the language in question and display an average rhythm and fluency, leaving aside other manifestations that may not fit those patterns.

The topic of this research has been chosen precisely for that reason. Real linguistic manifestations are not always the way they are expected to be and that should not pose an impediment for language study but rather constitute an added element to give attention to and consider as enriching. A wide range of linguistic dysfunctions contribute to the complex reality of language, and among those diverse manifestations, aphasia is the one that has been more widely studied from different perspectives and fields of knowledge.

Agrammatic aphasia, more specifically, has been dangerously reduced to a linguistic manifestation in the form of telegraphic speech that does not conform to any sort of grammar or pattern. It is true that each patient might present a range of unique characteristics in his/her speech.
However, the purpose of this study is to conduct an in-depth analysis of agrammatic patients' speech production and try to identify, together with the results of previous studies, if agrammatism does or does not follow certain linguistic patterns and how these findings might well lead to a reconsideration of the grammatical canonical models commonly accepted.

2. AIMS OF THE STUDY

This study aims primarily to give space to anomalous speech production as part of the variety of linguistic manifestations in the English-speaking community. In a way, the election of this project goes down to a personal will to consider part of the reality of English language production that is generally left aside in undergraduate studies.

A general aim is to give an insight and gather information about aphasia, and agrammatism in particular, under the light of neurolinguistics. Aspects such as the different theories on brain structure in history and how they changed the consideration of aphasia will be briefly covered.

Moreover, by analysing real aphasics' language production, a second aim is covered: studying certain grammatical aspects in aphasics' language output. Out of this study, some grammatical patterns are expected to be found, helping not only to delimit the diagnosis and posterior targets for speech therapy of agrammatic patients, which already corresponds to a different field, but also reconsidering the actual label of the disorder, that might not be so accurate and could lead to confusion.

3. THEORETICAL BACKGROUND:

Before getting into the field of aphasia, and more specifically agrammatism, it is necessary to present an overview of Broca's region since it is believed to be the one involved in the production of
language, at least in morphosyntactic terms. First, a physical description of the region will be developed: its anatomy and histology, following a summary of its connections. Next, a compilation of the different functions will be provided, breaking with the early conception of its specificity for spoken language only.

3.1 Broca's Region:

To identify Broca's region, Brodmann's cytoarchitectonic areas will be used. After microscopic examination of a postmortem brain and on the basis of histological and brain structure differences, Brodmann designed, in 1909, a schematic representation of a typical brain, in which he divided the brain cortex into more than 40 cortical cytoarchitectonic areas (Amunts, 2008).

The nowadays named Broca's region was identified in 1861 when Pierre Paul Broca came across a patient who could only utter the word “tan” and a swear word although his tongue and lip movements were in no other ways impaired. He also presented paralysis on his right side of the body but his cognitive abilities seemed to be intact. After his death, autopsy revealed a fluid-filled cavity in his brain's left frontal lobe, just anterior to the motor cortex of tongue and mouth (Nobuyuki et al., 2005). The affected region found in this patient matched the later on identified Brodmann's areas (henceforth BA) 44 and 45 , pictured in figure 1, and which characteristics will be described in the following sections in terms of anatomy, histology, connections and predicted functionality.

Figure 1: Left-hemispheric sketch view of a human brain (Amunts et al. 2010)
3.1.1 Broca's Region Physical Description

3.1.1.1 Anatomy:

Broca's region, together with its right hemisphere counterpart, includes BAs 44 and 45, which occupy the pars opercularis and pars triangularis of the inferior frontal gyrus in the left hemisphere, dominant in the 95% of the population (Nobuyuki et al., 2005). This information is only to be taken as a guide, since it must not be forgotten that Brodmann's cytoarchitectonic map is the schematic representation of a brain that has been taken as a model of a normal brain. In fact, as later histological studies have proved, there is considerable variation among individuals in the size and extent of BAs 44 and 45 with respect to the individual's sulcal topography. The volume of area 44, for instance, can differ considerably across individuals up to a factor of ten (ibid).

Individual differences make it difficult to even determine which of Brodmann's cytoarchitectonic areas actually delimit Broca's region. It seems likely that other BAs should also be considered part of it. Parts that may be included in Broca's region are the most central part of BA 6 (inferior precentral gyrus), parts of the cortex in the depths of the Sylvian fissure or the orbital part of the inferior frontal gyrus. Brain macroscopy does not help greatly to determine if these areas should or should not be included in Broca's region since many of them are located in very close neighbourhood. The list of BAs that can be considered as part of Broca's region includes, on the whole, BAs 6, 44, 45, 47, 46, 43, 8 and 9 (Amunts, 2008)

The localization of borders between these areas also differs among the various cytoarchitectonic maps that have been delimited in time – Brodmann's, von Economo and Koskinas, the Russian school under Sarkisov; and Riegele's – most probably due to the formerly mentioned intersubject variability in brain anatomy (ibid). Anatomically, therefore, it is not easy to delimit the areas that should be considered part of Broca's region. This complexity can be translated to the study of language production, making it extremely difficult to ascribe this faculty to a specific area of the brain. Moreover, as it will be explained in section 3.1.1.3, the different connections of what
is generally considered Broca's region with other parts of the brain make it even more difficult to
delimit which elements of speech production are generated solely in it, if any, and which others are
not.

3.1.1.2 Histology
Although the near impossibility of determining with certainty the limits and BAs that compose
Broca's region should be borne in mind, only the histology of the two main areas, BAs 44 and 45,
will be provided here as a description of the cells that compose them in order to give some
information about the areas' development. BAs 44 and 45 have in common their composition by
large pyramidal cells in deep layer III and layer V. Both of them also lack clear borders between
layers II and III, and layer VI presents low density cells. However, area 45 has densely packed
granular cells while area 44 is dysgranular. (Nobuyuki et al., 2005)

Taking into account the characteristics of the cells it is possible to know information about
the areas' development timeline in relation to the development of others. Based on their histology
and cortical thickness, areas 44 and 45 are known to mature later than other areas such as the
primary sensorimotor cortices (ibid).

3.1.1.3 Broca's region connections with other areas
Broca's region is not physically separate from other brain areas; on the contrary, it is connected to
the rest of the brain through a complex neuronal network of white and grey matter. Taking this into
account would necessarily mean leaving aside a strict localisationist model and accepting a
connectionist one, especially useful if the idea that higher cognitive functions are preferentially
based on widespread networks rather than isolated cortical areas is accepted (Anwander et al.,
2007). In fact, the consideration of those widespread networks might offer an explanation to cases
in which epicenters considered as essential for language in a localisationist model, as is Broca's
area, might be affected by a tumour or even surgically removed, causing no aphasia (Duffau, 2011).
Cases like this, in which the areas comprising Broca's region are partly or totally removed without causing aphasia on the patient reinforce the idea of language production complexity and flexibility through the process of functional compensation within a large distributed network, generally known as brain plasticity (ibid).

Technical advancements in brain imaging, be it tractography or magnetic resonance imaging, among others, have allowed researchers to examine existing pathways connecting different parts of the brain both structurally and functionally. Previously, the way to infer such connections was by associating a patient’s set of symptoms to his/her damaged area of the brain, known through examination of the organ postmortem. However, nowadays it is possible to trace brain activity in real time thanks to the previously mentioned imaging techniques.

In relation to Broca’s region, a connecting pathway to Wernicke’s region in the human brain was confirmed through the usage of diffusion tensor imaging and tractography (Nobuyuki et al., 2005). Catani and colleagues demonstrated both direct and indirect connections between Broca’s and Wernicke’s areas, which serve phonological and semantic functions respectively (Catani et al., 2005; Ford et al., 2010). This connections seem vital for the normal processing and production of language since Wernicke’s region is believed to be the primary area responsible for storing the auditory representations of words (Heilman & Roth, 2000). However, connections linking Broca’s region to other parts of the brain are numerous and oftentimes unrelated directly to the act of speaking, something to take into account since it shows that Broca’s region is not exclusively reserved for language production but serves also wider language-related functions as well as other communication related functions (Nobuyuki et al., 2005). This will be explained in more detail in the following section.

Some very interesting multidisciplinary projects in the field of neural connectivity and brain activity that are nowadays being implemented also deserve to be mentioned. Among them, two are the most noteworthy: Blue Brain and The Human Connectome Project. Utilising state-of-the-art
technology, both projects aim to simulate the real activity of a human brain, The Human Connectome Project focusing on neural pathways (WU-Minn Consortium, 2014), while the Blue Brain Project pursues the creation of an ambitious computer-simulated human brain (EPFL, 2014). These advancements will provide a better understanding of the complex self-constructing, self-learning and self-recovering machine the human brain is, and they will provide easier ways to study brain injuries as well as to contribute to their effective recovery. For more information on these two projects, see their respective websites included in Bibliography.

3.1.2 Functions of Broca's region:
Broca's region was initially identified as the area involved in the production of spoken language only. This idea has been around for a very long time and it has arisen the false and reductionist belief that Broca's region is involved in language production only and works in isolation from the rest of the brain. However, it actually presents a mosaic of functions that have been recently discovered thanks to the diverse and formerly mentioned brain imaging techniques that show the activation of the area during the realization of different tasks.

One of the main functions of Broca's region is presently its implication in language and speech. During activities requiring naming, semantics or syntax, Functional Magnetic Resonance Imaging (fMRI) shows left-hemispheric dominance, although there is bilateral activation. However, it has been proved through the same procedure that Broca's region is also activated during acquisition of grammatical rules, discrimination of speech sounds or estimation of time intervals; that is, Broca's region does not participate only in the production of speech as it was initially believed, but also in its perception, working in close connection with Wernicke's area, typically related to the perceptive side of language (Nobuyuki et al., 2005). Moreover, the process of language production has proven complex and holistic in its nature. Segmental, lexical and syntactic information is processed in different frontotemporal networks in the left hemisphere, as Friederici and Alter (2004) have discovered, while the processing of intonation is more related to a
temporofrontal circuit in the right hemisphere. Moreover, certain studies have suggested that single regions involved in that complex network actually obtain their specific role through interaction with the rest of the areas, reinforcing the idea that the linguistic process is actually very complex and holistic, and that it should not be reduced to the isolated action of a single area (Nobuyuki et al., 2005).

It has also been suggested that Broca's region might work as an interface between perception and action (Nobuyuki et al. 2005). A network of mirror neurons recently discovered in monkeys Broca's area counterpart – frontal area F5 of the monkey's cortex –, which is active during the process of learning or focusing on goal-related motor acts or speech sounds that imply actions, has been studied in humans resulting in a global activation, including Broca's region, of our mirror neuron system in similar communicative situations which require a degree of attention, as well as when performing acts of imitation. These neurons are not reduced to Broca's region; they spread in both hemispheres to the primary motor cortex. Further studies on patients suffering from autism spectrum disorder, who normally present difficulties in understanding motor-act-based intentions of other subjects, have shown deficits in the activation of their mirror neuron system (ibid), while the connectivity between the classical intrahemispheric language centers, Broca and Wernicke, remains intact (Verly et al. 2014).

Connected to this is Broca's region function as action understanding. The mirror neurons system in Broca's region is activated when a person views or listens to speaking faces, but not when watching a dog bark, so the ability to understand what is being seen or heard requires the activation of Broca's region mirror neurons, Broca's region acting therefore as function understanding (Nobuyuki et al. 2005). Broca's area shows activation also when the speaker uses hand gestures which are speech related, not activating when he/she performs non-speech related gestures.

All these range of functions together define Broca's region as a special communication area not only at the level of spoken language production but as a more global verbal and non-verbal
communication control center, including orofacial gestures and hand movement, action planning, action observation, action understanding and imitation.

3.2 Agrammatic Aphasia

3.2.1 Aphasia:
The word aphasia, from Greek “speechlessness”, is the cover term used to label a spectrum of different linguistic disorders that appear due to acquired focal brain damage, be it down to a stoke, a tumour, an accident, or any other reason that may provoke it (Bright 1992; Bussmann 1996). Generally, the damaged side of the brain is the left, since language is believed to be lateralized in the left hemisphere for all right-handed people and the majority of left-handed. Patients with aphasia may show a very varied set of symptoms, from total loss in linguistic comprehension to total loss in linguistic production, or what is more common, a gradation of any of the two, each patient showing a range of symptoms that would depend on the area or areas and neuronal connections affected by the lesion.

3.2.1.1 Types of aphasia

Since aphasia is a very broad term that can be applied to any patient who presents linguistic dysfunctions due to acquired brain damage, there has been a constant will to classify aphasias into different types. However, this task turned out to be more complex than what it initially seemed due to a number of reasons.

Initially, one must consider that the field of aphasias has been studied by different disciplines in which neurology, psychology and linguistics are the most salient. Depending on the science, the approach to its study varies greatly, from focusing more on the physical localisation and spread of the damage – neurology –, to proposing classifications of the syndrome based on a
specific psychological theory – psychology –, or classifying aphasias attending to linguistic aspects – linguistics (Luria in Jakobson 1983).

This already draws a picture of the diverse possible classifications that might be applied to aphasias, which becomes even more intricate when realising that, in the course of history, psychological theories have evolved in different and sometimes even opposing ways, proposing varied theories of aphasia with their corresponding classifications. An overview of those classifications will be given here and contrasted with a more linguistic-centred theory proposed by Roman Jakobson and followed by Luria that I consider somehow more in tune with the purpose of this dissertation, which is mostly linguistic.

In the second half of the 19th century, Lichtheim (1885), under the premises of associationist psychology, proposed a diagram for explaining aphasia, extracting from it a classification of the different aphasias apparently existing. Lichtheim’s aim was to determine the localisation of the “linguistic” areas of the brain and their connecting pathways. He determined the existence of two main linguistic areas for the act of speaking, “A” for word representations (roughly Wernicke's area) and “M” for motor images (roughly Broca's area), to which a third cognitive area should be added in order to comprehend and deliver speech, “B”, proposing then the subsequent connections between them. Moreover, he added to the diagram two more reflex arches or connections with “a” for transmitting acoustic impressions and “m” for projecting the organs of articulation, depicting this way the speech process (see figure 2). From his theory derives a 7-type classification of aphasias, each corresponding to the damage of a specific centre or connection between centres, as shown in figure 2, from which the most salient are: sensory aphasia, motor aphasia, amnestic aphasia, conductive aphasia and transcortical aphasia (Lichtheim,
1885; Jakobson, 1983; Compston, 2006). Those labels have been and are still widely used in the medical field for diagnostic purposes, and they are the ones utilised in the AphasiaBank corpora (MacWhinney, 2014), analysed further in this study.

With the appearance of new psychological currents that proposed an integral view of the brain and understood the mental processes as complex integral structures, the aim shifted from discovering associations between different centres of the brain to analysing general manifestations of symbolic activity, without taking much into account the loci of the lesion itself but rather the mass of the damaged brain. Labels such as “categorical behaviour” and “abstract direction” arose from this approach. However, it did not last long and a new one that studied aphasia as a disturbance of the complex forms of analytical-synthetic activity from damage to the secondary and tertiary zones of the cerebral cortex took on. (Luria in Jakobson, 1983)

Generally speaking those different classifications of aphasia were made under the light of physiology or psychophysiology and did not base their research counting on the basic principles of language production, neither applying linguistic criteria. It was by the hand of Roman Jakobson that a linguistic approach to aphasias and their classification was elicited. He identified two main activities related to speech perception and production and classified aphasias on the basis of them both. Speech involves what Jackobson called “gnostic” activity, having to do with the symbolic representation of reality in all its complexity, and “dynamic” activity, involving the process of translating such symbolic representation and complex thought into flowing, connected and serially organized speech. Such a basic and apparently obvious classification was actually critical for a more accurate and realistic classification of the aphasic syndrome, and was further supported by the association of specific parts of the brain with those two main activities of Jakobson's communicative approach to language: the posterior part of the brain comprising the temporal, the occipital and the parietal areas, is the one in charge for the gnostic activity while the anterior portions of the brain, where Broca's region stands, account for the dynamic activity. (Jakobson,
This project will focus on the dynamic activity of the brain described by Jakobson, since the anomalies in the construction of connected utterances are the object of this study. The main target will be agrammatism, which comprises some very specific symptoms directly related to that dynamic activity of the brain. The general characteristics of agrammatism appear summarized in 3.2.2 below.

3.2.2 Agrammatism

The term agrammatism or agrammatic aphasia is used to categorize aphasic patients who present a number of specific language symptoms. The so-called agrammatic patients have a tendency to omit grammatical function words and bound grammatical markers. Their speech is often described as telegraphic since content words tend to be preserved while all or some morphological and syntactic elements are dropped. Moreover, they produce halting speech and short utterances avoiding complex sentences. In what comprises understanding linguistic utterances, they appear to comprehend single word meanings properly but might struggle to interpret sentences which meaning depends on the comprehension of structural information encoded in grammatical morphemes or word order. (Menn & Obler, 1990)

Manifested in different degrees of severity and varying on the basis of the typology of the language spoken by the patient in question, agrammatic patients give the impression of having lost the structural part of language. However, some still preserve part of the morphosyntactic structures, and others might present problems with other aspects of language such as production of verbs, typically considered content words, a trait that apparently does not fully comply with the classic symptoms named above (Menn & Obler, 1990). However, if studied under Jakobson's reasoning, the verbal disruption in agrammatism or Broca's aphasia, which Luria prefers to name efferent motor aphasia, is actually expected and explicable. Since the problem of efferent motor aphasics is
to reproduce their intact mass of thoughts into connected speech, the absence of verbs and auxiliary words is as natural as the absence of functors, all of them working to give speech the character of a connected sentence. (Luria in Jakobson, 1983) This reasoning could lead to call into question the actual label “agrammatism”, since what is impaired is not only grammar but rather the whole process of translating symbolic activity into fluent connected speech and affects every element that contributes to this process.

It should be also noted that patients with acquired brain damage that has affected some part of the brain other than Broca's region could also present the typical characteristics of agrammatism. This fact provides evidence that human brains might be more similar functionally than neuroanatomically, and, therefore, functions should be studied in themselves rather than depending on the localisation of the lesion. (Menn & Obler, 1990)

Many different theories of agrammatism have been proposed in time, and there is not a definite one that can explain the complexity of the disorder. Some theories are limited to language production, more specifically considering grammatic limitations (Kolk et. al., 1985). Others combine the loss of morphosyntactic structures with the phonological and phonetic impairments that some patients also present (Kean, 1977). Jakobson's approach under the main idea of agrammatism as a contiguity disorder, the one to be followed in this study, developed from considering the issue of concatenation of both sounds and segments into words and words into sentences, to understanding it in his other approach, also followed by Luria, as a problem with predication. In this second approach (Jakobson 1964; Luria 1970), the focus is placed on the morphosyntactic limitations of agrammatic patients, but it leaves ambiguity on whether those problems appear only in producing linguistic output or also in understanding linguistic input, so both possibilities are left open. Zurif and Caramazza (1976) have studied agrammatism from the comprehension perspective. Some have proposed that what fails is a more specific process: for Grodzinsky (1984), agrammatic patients struggle with maintaining representations of moved
elements, which accounts for their difficulties with passive structures and sentences departing from
the most common word orders; for Caplan (1985), the problem goes down to an issue with
maintaining hierarchical structures.

Nevertheless, when analysing speech comprehension and production of a specific patient,
those different potential problems may or may not arise, so none of the theories can be, after all,
fully applied to everyone or in all their aspects. This will be explored in more detail in the analytical
part of the study.

4. PREVIOUS STUDIES

English agrammatic features have been studied widely over the last forty years. However, the more
studies are conducted, the more contradictory results and uncertainties arise. That is why it is
interesting to gather some conclusions from different studies in order to build and later follow a
specific line of thought in the corpus analysis section.

Menn and Obler cross-language extended study provides an early comprehensive account of
the most salient features of agrammatism in languages as diverse as English, Dutch, German,
Icelandic, Swedish, French, Italian, Polish, Serbo-Croatian, Hindi, Finnish, Hebrew, Chinese and
Japanese. The most innovative aspect of this study was the drive to thoroughly document the
similarities and differences in agrammatic manifestations among numerous languages and extract
the necessary conclusions to approach a Theory of Agrammatism (Menn & Obler, 1990).

All languages in their study presented syntactic simplification in free narrative speech
production, both within and across clauses. Across clauses, relative and subordinate constructions
were absent or poorly executed by agrammatic patients in all languages, while within clauses the
simplifications were a bit different in nature, not so much syntactic as semantic, which was
something in a sense surprising due to the believed morphosyntactic nature of agrammatism. In NP
structures, unexpectedly, the simplifications went down to absence of content-content NP constructions – adjective + noun; noun + noun –, rather than absence of function-word modifiers – articles; determiners; numerals –, which would have been somewhat more expected on the basis of previous knowledge on agrammatism. However, the explanation given by Menn and Obler still sticks to the idea that agrammatic speakers follow a will to simplify the NP construction (Menn & Obler, 1990).

Another interesting finding was that, although omissions are common for free grammatical morphemes generally in all languages, they rarely happen for bound grammatical morphemes – inflectional endings –, in which case errors manifest in the shape of substitutions for other improper inflectional endings. Early studies on agrammatism had dealt mainly with English agrammatic data, and since English is a poorly inflected language that does not allow much inflection substitutions – 3rd person singular present tense -s, regular past -ed, progressive -ing – as much as bare stem substitutions, it was theoretically proposed, in line with omission of free grammatical morphemes, that agrammatic subjects omitted inflectional endings and had therefore lost the grammatical quality of language. Through the study of morphologically complex languages with dense verbal paradigms this idea of absolute agrammatism, that is, total lack of grammatical rules, was discarded at once, although the label continued and still continues to be used systematically (Menn & Obler, 1990). Even in English those that were generally considered omissions of the inflectional endings could still be seen as substitutions by zero morphemes instead. Therefore this study showed that substitutions of inflectional endings were actually the norm and not omissions as it was previously believed, and therefore that substitutions were not a characteristic of paragrammatism but of agrammatism per se.

Syntactically, the study demonstrated that patients tended to stick to the canonical word order of the language in question, and in languages in which the verb was free to move, such as Finnish and Polish, patients would still show preference for a favourite word order that may differ
from the canonical word order of those languages. Also, difficulties with syntactic deviations from
canonical word order, as could be clefts or existentials in English, were generally perceived also in
other languages.

The findings' interpretation led Menn and Obler to conclude that “syntactic processing
difficulties result in the 'blurring' (or in severe cases, the loss) of morphosyntactic markers needed
to specify inflected forms and function words” (Menn & Obler 1990:1380), and they stressed that
the major difficulty lied in syntactic computation. However, other studies point towards a
morphological impairment rather than a syntactic one, as it will be further explained.

While Menn and Obler study provided a very general and comprehensive account of
agrammatic characteristics from observation and careful transcription of free narrative speech
obtained through elicitation tasks such as culturally well known story-telling – Little Red Riding
Hood – or picture descriptions, other studies, this time language-and-target-specific, have shed light
on more precise errors and their possible origins by means of elicitation tasks of different nature.

Here, three papers on the production of inflectional endings by English-speaking
agrammatic patients will be summarised and their diverse conclusions will be brought together so as
to test them in the following section of corpus analysis. The papers are: Faroqi-Shah and
Thompson's “Verb Inflections in Agrammatic Aphasia: Encoding of Tense Features” (2006),
Arabatzi and Edwards's “Tense and Syntactic Processes in Agrammatic Speech” (2002) and Lee,

Faroqi-Shah and Thompson's paper deals with agrammatic aphasics' errors in encoding tense
features (Faroqi-Shah & Thompson, 2006). Their aim is to determine the nature of those errors that,
according to them, could go down to three different aspects: syntactic well-formedness constraints
that would point towards a syntactic impairment; diacritic encoding and retrieval (henceforth DER)
that relates the impairment with an inability to retrieve inflectional affixes or verb forms that
correspond to the specific diacritic features from the mental lexicon in order to produce the context-
appropriate finite verb, a process that involves conceptual, lexical and semantic activity; and encoding of morphologically complex words (ibid). The paper argues for the DER hypothesis and provides interesting findings by means of multiple-choice questions instead of elicited free-narrative speech. Agrammatic subjects, contrary to Wernicke's aphasics, are able to actively control their speech and purposely choose to produce structurally simple language (Bates et al. 1978). For this reason, it is not easy to study agrammatic aphasics' behaviour in relation to certain structures, such as relative clauses, through free narrative speech. Multiple-choice questions, as used in Faroqi-Shah and Thompson's study, can be very useful to check up on agrammatic patients' accuracy with structures they avoid to produce in their attempt to simplify speech.

In order to adhere to or discard the three of the theories, different sets of multiple-choice questions were used (Faroqi-Shah & Thompson, 2006). Firstly, to check if the source of the verb tense impairment lied in syntactic well-formedness, a set of questions that required answers in a syntactically constrained environment was employed. Two types of sentences were used: a) syntactically constrained sentences providing the auxiliary construction and leaving a gap for the main verb that the patient had to fill in with the correct verb form to choose from a list of three possible answers. An example could be “Tomorrow, Peter will _______ his grandmother” with options call, called or calls; and b) sentences that based the patient's selection of a time diacritic on semantic information encoded in temporal adverbs. Sentences were of the sort of “Yesterday, Peter _______ his grandmother” with options call, called or calls. Researchers had previously checked whether patients properly understood the meaning carried by temporal adverbs by asking them to point at “yesterday, today, tomorrow, last year, everyday” in a calendar, with 100% positive results. Accuracy rates showed that production of verb inflection was impaired when it relied on information encoded in temporal adverbs, while local syntactic information did not pose problems, attaining very high accuracy rates.

To determine if their manifested impairment in producing the right tense inflection had to do
with complexity of the inflection process itself, a hypothesis that has been proposed at different points, a set of multiple-choice questions in which patients were required to chose the appropriate word to fit each specific sentence was implemented. Here, inflectional and derivational morphology were included, as well as regular and irregular past and non-finite forms. Irregular past forms are believed to be morphologically simple because there is no stem-affix differentiation, they do not require inflection. Derivational morphology, on the other hand, is considered to be more complex due to the less transparent meanings encoded in derivational affixes. This particular part showed some interesting findings: derivational morphology appeared practically spared together with non-finite forms, while both regular and irregular verb forms that encoded temporal information presented a very low level of accuracy. This indicates that morphological complexity has nothing to do with agrammatic patients' choice or production of the wrong inflected verb forms. On the contrary, their answers here, in agreement with those in their other multiple-choice question set, point to the hypothesised DER impairment proposed by the authors (Faroqi-Shah & Thompson, 2006).

Moreover, the -ing verb form was very well preserved and was even sometimes used to substitute those problematic verb tense inflection cases. The reason for this is that -ing does not encode tense but progressive aspect, so, same as with other non-finite forms, the fact that tense does not play any role could be the reason why non-finite forms, including -ing, are preserved and even overused. The -ing form is very productive in English. It can be used with verbs to indicate progressive aspect, but it also shapes nouns, adjectives and adverbs (Menn & Obler 1990). For this reason, the -ing form in all its complexity is an aspect that may provide interesting information, and it will be the focus of this study, together with other inflected and non-inflected verb and verb related forms.

Arabatzi and Edwards' paper also shows some very interesting findings in relation to verb inflection (Arabatzi & Edwards 2002). The aim of the research was to compare agrammatic
aphasics' omission errors, or rather substitution for bare stem errors, with the Optional Infinitive Stage that children experiment during their language development. It is believed that children of ages ranging between 1;10 and 2;7 approximately have the choice of using either the right inflected verb form or the verb infinitive interchangeably. Since the substitution of inflected forms for bare stem was something commonly observed in agrammatic speakers, this study wanted to elicit the production of inflected verb forms to check whether patients behaved as children would do: opting at times for the inflected forms and at times for the bare stem. The most carefully designed aspect of the research was that patients were asked to fill in not only affirmative sentences but also negative ones, the reason behind this being that in negative sentences there is meant to be a restricting grammatical mechanism that does not allow speakers to inflect the main verb if the auxiliary is omitted. So, for instance, children could either say: “He doesn't shave” or “he not shave”, but never “he not shaves”. However, the latter pattern was observed in some agrammatic speakers, showing that those restrictions may be faulty (ibid).

Moreover, both in affirmative and negative clauses, agrammatic aphasics were more inclined to substitute the right inflection for another inflected verb form rather than the bare stem, and this is a good indicator that, although faulty, grammatical rules are being applied. Inflection, although faulty, does occur. Negation is also never omitted, agreement is mostly preserved and tense, despite of being more often omitted, still shows a higher percentage of substitutions than omissions. No profound problems were found in sentence construction. Therefore, there is no total loss of functional categories as it had been proposed by Borer and Rohrbacher (1997), among others.

This study concluded that there is not grammar loss in agrammatism, but rather some faulty processing of grammar, as could be the case of impaired Head Movement Constraints in negative sentences or even feature-checking procedures that allow, at times, production of ungrammatical constructions. By considering those processes faulty rather than inexistent and discarding a direct loss of grammatical rules on the whole, Arabazi and Edwards can also account for individual
Finally, let's consider Lee, Milman and Thompson's work on “Functional Category Production in English Agrammatism” (Lee et al., 2008). Here the authors took the Tree Pruning Hypothesis that suggests agrammatic aphasics' inability to project to higher nodes in the syntactic tree. The Tree Pruning Hypothesis assumes a hierarchical organisation of elements within and among clauses and considers that agrammatism derives from impairments in the tree nodes. Due to the hierarchical nature of clause building, if the inflectional phrase is impaired, so must be the complementizer phrase because it is projected higher in the structure. Similarly but in the lower level of the inflectional phrase itself, whenever person and number agreement is impaired tense must also be impaired because, again, it is projected higher in the structure.

Lee, Milman and Thompson, however, reject the Tree Pruning Hypothesis on the basis of their collected data. By means of different elicitation tasks, they found out that complementizer phrases with *whether*, *if* and *that* were produced with a much higher percentage of accuracy than inflectional phrases both for tense, person and number agreement. Moreover, there was no common pattern of better performance in agreement than tense or vice versa, but it depended on individual usage. It is true that tense and agreement in English are not neatly separate as they are in other languages such as Spanish, which may show different results due to the morphology of the language. In any case, and based on this research, the Tree Pruning Hypothesis cannot be sustained since higher tree nodes appear to be less impaired that lower ones, as is the case of complementizer phrases and inflectional phrases, and there is no apparent widespread pattern of impairment between tense and agreement. The rejection of the Tree Pruning Hypothesis is in tune with previous findings collected here that pointed towards local morphological impairments instead of over-comprehensive morphosyntactic explanations as is the Tree Pruning Hypothesis. Although a definite answer to what exact morphological mechanisms are impaired is not overtly given, Lee, Milman and Thompson call to different conclusions already present in aphasia literature, like Arabatzi and
Edwards' formerly mentioned feature-checking impairment, underspecified morphological features appointed by Wenzlaff & Clashen (2005) and Nanousi et al. (2006), and Thompson's faulty computation of morphological features (Thompson et al., 2002).

In the following section of this study, an analysis of the -ing inflection usage by agrammatic aphasic individuals together with inflected and non-inflected verb and verb-related forms will be conducted in order to try and shed some light on English verb inflection in what concerns aspect, tense and person and number agreement. Since it has been suggested that -ing can be overused in agrammatism, it will be interesting to pay closer attention to the contexts in which it is utilised and try to find a reason for the choice of -ing forms over others, in case an overuse does take place.

5. DATA ANALYSIS

5.1 Data Collection:
Using AphasiaBank corpora (MacWhinney, 2014), the speech production of four aphasic participants diagnosed as Broca's aphasics was selected for analysis. Patients with other types of aphasia were discarded in order to stick to the general identification of Broca's aphasia with agrammatism. However it is true that patients with lesions in other parts of the brain could still present the typical traits of agrammatism. Moreover, the aim has been to select participants with a similar degree of impairment, although the last participant analysed, Scale18a, was a bit less impaired than the other three.

All participants were monolingual in English, the cause of their aphasia going down to a stroke. Their age ranged from 44 to 55 years old and all of them had undergone speech therapy during varying periods of time. The four participants' speech production1 was obtained through free-narrative speech by the following elicitation tasks: talking about their speech; talking about the stroke; what they had done to improve their speech; action-picture description (diverse pictures

1 See Appendix for full transcripts
from lower to higher difficulty); story-telling of Cinderella; and how to make a peanut butter and jelly sandwich.

All activities were video-recorded and their language production was transcribed together with that of the investigator. In relation to the transcripts and its morphological and grammatical parsing, it must be noted that there have been great disagreements in this study, as it will be pointed out in the individual analysis of each participant's speech. The morphological parsing seemed almost as if it had been carried out automatically, not taking into account gestural information of the participants in cases in which it was very clarifying, and oftentimes providing erroneous or very unclear analysis. Consequently, this has led to a conflict between the word types ascribed to many of the units in the AphasiaBank parsing and the ones considered here as correct on the basis of linguistic and contextual knowledge.

5.2 Participant Wright201a:

This participant was highly impaired in his language production, although he demonstrated good understanding skills. He very often came up with sentences composed of nouns and adverbs only, dropping verbs completely. However, during the diverse activities he performed, he produced a total of 39 verbs and verb related forms. 33.3% of them were rightly used, among which 53.8% instances could be classified as fixed expressions which structure the participant appeared to have internalized. Those fixed expressions are the exclamation “I don't know!” and “I think so”. A 30.8% of the grammatically correct used verbs accounts for present continuous -ing accompanied by the proper auxiliary verb, and the remaining 15.4% reflects two instances of rightly employed imperatives.

A 66.6% of his verb production was, on the contrary, incorrectly used. Here, 50% corresponds to inflected forms, 92.3% of them being -ing inflected and 7.7% -ed past participle. 34.6% of the incorrectly produced verbs involved bare stems, but those were not always used in
substitution of an inflected form. It is true that 77.7% of the bare stems were replacing forms that should have been inflected for 3rd person singular present tense, but the other 33.3% were meant to be bare stems. The problem with them was the syntactic structure that demanded an overt subject and sometimes object, which the participant did not produce.

Going now into the analysis of the -ing form, it should be noted that although the percentage of -ing errors appears to be very high the problem does not lie in its usage or context of appearance. On the contrary, -ing is used in appropriate contexts but what makes it ungrammatical is the generalised absence of the auxiliary verb that should accompany it marking tense and number agreement. Most -ing forms in the participant's speech were recorded in the AphasiaBank transcripts as present participle instances, encoding the progressive aspect of the verb of which the auxiliary verb is missing; but the patient also used the prolific -ing affix as a gerund-noun, for instance in “puzzles and math no longer, spelling no longer”, and as an adjective when saying “life threatening, yeah”. These two usages that differ in category from the progressive form of verbs are in fact used correctly, the utterances being ungrammatical for the lack of other elements like verb and explicit subject in the first instance and an accompanying noun in the second of the sort of “life threatening situation”.

Moreover, the percentage of -ing usage out of the total number of verbs produced by the participant, 41%, shows that the -ing form has not been overused, specially considering that the elicitation tasks were picture description involving action and popular story telling, both tasks demanding high encoding of the progressive aspect in action verbs.

In what concerns inflection in general terms, however, the -ing form is the only one preserved by the participant. He seems unable to produce inflected verbs carrying tense, person and number agreement at once (3rd person singular -s), and the only time he does it right is with the irregular verb to be as auxiliary and copula – “the boy is hauling ass now”; “the man is ’oh no!’”- that does not involve affixation. Same happens with tense encoding. He produced three past
particiles of which two of them were irregular verbs that did not demand affixation – stuck and
grown up – and only one that carried -ed but functioned as an adjective and not a main verb in itself – disappointed. Past tense is in fact virtually absent in the whole transcript, being specially expected in the Cinderella story-telling task where controls used past simple and past continuous naturally to tell the story.

So this particular patient shows the greatest difficulties with tense, person and number encoding in approximately equal terms. This however did not produce an overuse of the -ing form that he appears to master; in fact, the contexts and alternation of the progressive and non-progressive forms of the different verbs also seemed pretty well preserved and rightly performed taking into account his general limitations in verb production.

5.3 Participant Wright205a:

This participant's language production was also very limited while his understanding capacity was much higher. His speech was mostly composed of nouns, although he also produced some adverbs, verbs and very few adjectives. A major problem for the morphosyntactic analysis of his data lies on the fact that he tends to produce isolated words and hardly ever manages to say complete sentences or even sentence-like utterances. That way, isolated words are at times very difficult to classify as for instance verbs or adjectives. This applies particularly to -ing instances, which analysis in this study may differ from the one given in the corpus parsing based on the interpretation given to the participant's utterances.

This patient produced twenty two verbs and verb related forms in his whole speech elicited by means of the same activities mentioned above. 41% of those verbs were used correctly but it is noteworthy that 44.4% of those instances were fixed expressions of the type “I know” and “I don't know”, just like patient Wright201a. The other 55.6% is composed of five instances of imperatives, out of which two correspond to the discourse marker “see” used for interaction with the
interlocutor, and the other three were produced in the “How would you make a peanut butter and jelly sandwich” activity.

From the 59.1% of the incorrectly used and/or inflected verb instances, 23.1% involved the bare stem. One of the bare stem was used replacing the past simple -ed affixed form, “black out” for “blacked out”, as it can be inferred from the context, and for another two cases it is difficult to identify a target form due to the lack of explicit or implicit subject and appropriate context. However, since both forms belong to the storytelling part, which controls tend to narrate alternating past tense forms, the bare stems in question could possibly be substituting some form of past tense.

Three more bare stems were used as imperative forms in the “How would you make a peanut butter and jelly sandwich” elicitation task. Here, these three instances have been considered grammatical although the AphasiaBank parsing marked them as grammatically impaired. It is true that the answer to the question ideally required an auxiliary particle such as “would”, but some controls do respond using imperative verb forms. On the basis of this, the participant's answers have been considered as correct although some elements in the immediately previous sentences are missing and/or word order is unpreserved. He uttered “Peanut butter, spread it. Jelly, spread it. Cut it half.”

The analysis of these three verb instances might be ambiguous, and it is not possible to know what the speaker's exact target was. If the target was the imperative form, which could be perfectly expectable, “spread it” and “cut it half” would be correct, although a verb in the immediately previous clause such as “take” for the first two cases would be necessary, same as an explicit antecedent to “it” in the last sentence.

A 38.5% of the incorrectly used verbs is composed of the past simple tense, but this does not imply the presence of the regular -ed form. In fact, four out of five of the past simple forms correspond to the same irregular phrasal verb, “fell down”. Only one is -ed inflected, “picked up”, and the lack of sufficient context does not allow for proper identification of the target form in the sense that it is impossible to know for certain if it was to be used as past simple tense or as past
participle. The main issue is that they both lack explicit subjects, although the one related to “fell down” is easier to infer from the context.

7.8% reflects a past participle instance that lacked its correspondent auxiliary verb, and the remaining 30.8% involves -ing forms, two of them analysed in AphasiaBank as adjectives and the other two as present participles encoding progressive aspect. However, one of the categorised as adjective in the corpus will be here considered an instance of present participle encoding progressive aspect based on the context in which it appears. The verbs holding -ing in his speech are two instances of raining, and dancing, and the form accepted here as an adjective is “river going”. However, again, this analysis is ambiguous due to the lack of sufficient context overall.

Analysing the numbers gathered above in relation to the use of -ing forms, even though -ing is very productive in English, it does not seem to be overused by this agrammatic participant to substitute other verb forms. From 22 verbs produced, only 4 carried the -ing affix, and the lack of context does not even allow to identify those forms as encoding verbal progressive aspect or being used as adjectives or nouns. Moreover, there is a certain balance in the use of different verb forms that, although limited, are quite varied. Wright205a used imperatives, present simple, past simple and past participle besides present/past progressive with -ing, although ungrammatically. This verb tense and aspect variety shows that the participant does have a sense of what is morphosyntactically correct or needed in each moment. However, the forms involving affixation seem much more impaired than those that do not need it. This is also made clear in the analysis of his speech: among the present simple forms, none carried the third person singular affix -s; of the 5 past simple verbs he produced, only one was properly inflected as a regular verb in -ed – picked up–, while the other four were instances of the irregular phrasal verb “fall down” that does not need any inflection; the verb produced in past participle was also irregular, “broken”, and did not need affixation; and finally, four -ing inflected instances, the most numerous and context-appropriate of the inflected forms.
Findings in relation to *-ing* partly support Faroqi-Shah and Thompson's research mentioned in previous studies that concluded that the main problem in agrammatic speakers in relation to verb production lied in tense, person and number encoding rather than in the process of affixation per se, although they related those problems to time diacritics, something that was not found here. In this participant's analysis it is shown that *-ing* inflection is very much preserved, lacking the auxiliary component encoding tense, person and number, so Faroqi-Shah and Thompson's theory could be applied here in relation to the impairment in auxiliary verb production. However, it seems that this particular patient had a greater ability to encode tense in irregular verbs that did not demand affixation than regular verbs that did, on the contrary, need it, contrasting in this sense with the aforementioned study.

5.4 Participant Scale10a:

This participant presented typical characteristics of Broca's aphasia such as speaking haltingly and at a slow pace, avoiding the production of complex sentences like relative and subordinate clauses, overusing nouns, adverbs and certain adjectives, sticking to the coordinating conjunction “and”, dropping mainly auxiliary verbs and free morphemes and sometimes even content words like subjects or main verbs, often making it difficult to discern the category of the chosen words.

During his whole intervention, this participant produced 23 verbs, out of which 15.4% were used grammatically and the remaining 84.6% ungrammatically. Same as with the other two previous participants but to an even greater extent, the correctly employed forms are reduced to the fixed expression “I don't know” that Scale10a uses three times, and “thank you”, used once.

From the ungrammatically produced verbs and verb-related forms, 59.1% correspond to *-ing* inflections out of which eight were categorised in the corpus as adjectives, two as present participle encoding progressive aspect and one as a gerund with noun function. The criteria to assign one or another word category seems however a bit random, since going back to what has been previously
stated, the lack of linguistic context and the impossibility to accurately know what the patient has in mind does not allow to tell whether a specific -ing form has been chosen in the shape of a gerund to perform as a noun, or was selected as the present participle of the verb to encode aspect, or if the purpose was that of an adjective to modify a noun, when there are no accompanying terms that can help to determine it. In fact in this particular case many of the -ing forms categorised as adjectives in the corpus should be called into question since their categorisation seems quite doubtful. An example could be the following:

*PAR: &points:dog bitin(g) [: barking] [* s:r] man &points:man . [+ gram] ▶
%mor: adj|bark-PRESP n|man .

In this case barking is considered an adjective, as if the participant was referring to “the barking man”. However, taking into account that he is pointing at the dog in a picture in which a dog is barking at a man, and considering that free grammatical morphemes are very often dropped in the speech of agrammatic subjects, it is pretty obvious that barking here, although without the explicit subject and auxiliary be in the right tense, person and number agreement (third person singular – the dog; present simple – is), is being used as a present participle encoding progressive aspect: “the dog is barking at the man”. In other cases the categorisation could be more problematic, but still this closer analysis of the -ing form tells that, even though AphasiaBank parsing exploits the adjective categorisation giving the appearance that this agrammatic subject tends to use the -ing form as an adjective more often than performing other functions, this generalisation should not be necessarily taken as reliable.

Moreover, still in relation to -ing forms, their usage, although impaired, seems quite appropriate for the contexts in which they appear, and again the problem derives from the absence of the necessary auxiliary verb in cases of progressive aspect marking, or limited linguistic elements that must appear to shape a clause and delimit the role of the -ing form as gerund or adjective.

A 27.3% of the ungrammatically used verb forms corresponds to bare stem, showing that,
opposite to what is generally believed, bare stem substitution is not the most typical use of verbs in agrammatic patients. In fact, two out of six appearances seem to take the imperative form for which the bare stem is expected. These cases are considered grammatically incorrect following the transcript parsing that indicates them as such and because they lack the object they should carry; however, the imperatives themselves appear in the same situation in which Wright204a had also produced them, the sandwich-making activity description, and if it was not for the missing objects they would have been considered as grammatically correct. Another instance of the bare stem seems to be, in a way, also appropriate, since the most natural target would be “the man wants/wanted to get it (the cat)” but he produces “get it man” moving his finger from the man to the cat in the picture. In that case, the bare stem is again not a substitution but something to be expected, and what lacks is the verb of the main structure “wants/wanted to” as well as the right word order in the sentence. Another instance in which he produced “go away” when telling the Cinderella story poses difficulties in identifying a target, which might well be a structure such as “Cinderella/she had to go away” in which the structural part including the subject and the auxiliary carrying tense information are missing completely. The two remaining bare stems have been selected in disagreement with the corpus parsing in which they were analysed as nouns: “kick down” and “crash a window”. The immediate context allows to identify them as verbs rather than nouns, and in this case they are proper bare stem substitutions of inflected target forms. However, discerning whether the target was -ing, -s or -ed inflected is nearly impossible due to the lack of sufficient linguistic context. Anyway, in accordance with the analysis of the two previous participants, bare stem substitution appears to be a minor device used by agrammatic patients to substitute other complexly inflected verb forms.

Adding up to this comes the remaining 13.6% of ungrammatically produced verbs which corresponds to three -ed inflected roots: “a lamp it crashed”, “words mixed up” and “married”. The main problem in the first instance has to do with word order; the second instance is not easy to categorise since the target clause could well be “words are mixed up”, the missing element being
the auxiliary verb, or it could be “words are mixing up”, in which case the -ing target verb form would have been replaced by the -ed form. The third instance was very much decontextualised so it is not easy to guess what the grammatically correct target utterance was. However, taking into account that he was narrating Cinderella's story, “they got married” could be expectable, or even “the prince married her/ She married the prince”.

The results for this particular patient show that he presented great problems with verbal production. The most problematic verb forms seemed to be auxiliaries that are generally left out of his speech while -ing forms are retained. However, even though data here cannot show it, it is quite noticeable that main verbs are also very often dropped, showing that agrammatism is not solely a grammatical impairment but also affects specific content words like verbs and also adjectives, poorly produced in his intervention. Taking into account that his verbal production is very limited, the fact that diverse inflected forms are produced rather than simple bare stems in their place shows that morphosyntactic rules are still working, although on and off.

5.5 Participant Scale18a:
Participant Scale18a presented very slow production pace, but her output was much richer than that of the three previous patients analysed above. In fact, even though the nature of her aphasia was the same as for the other three, Broca's aphasia, she presented somehow different problems, such as major troubles with fairly simple constructions which meaning depended on word order, or at some points with the creation of impersonal structures. The order of elements in the clause seemed a problem here, while it was not for the three previous participants in general terms. It is true, though, that her sentences are more elaborate, allowing therefore for a greater amount of those sort of errors. Another very noticeable mistake made by this participant falls on gender agreement encoded in personal and possessive pronouns and possessive determiners. On the contrary, her verb production is much more varied and accurate: she produced a total of 85 verbs out of which a 65.9% was used
grammatically and a 34.1% ungrammatically.

Among the 65.9%, present simple, past simple, present continuous, past continuous, passive voice, -ing noun formation, imperative, infinitive and past perfect were produced, and in many cases not just in affirmative form but also encoding negation and interrogatives, although affirmatives prevailed. Percentages here show that the variety was also very balanced in her speech, evidencing that her sense of grammar was very much unimpaired: 17.8% of present simple instances, 32.1% past simple forms, 28% of present and past continuous -ing, 16.1% infinitives, 3.6% imperatives, 1.8% corresponding to an instance of -ing noun formation and a last 1.8% of a past perfect form. However, what is striking is that the great variety of tenses she used were mostly encoded in irregular verbs, and therefore the great majority of the inflection she produced corresponded to -ing rather than past -ed or third person singular present tense -s. From the 25 verb and verb-related inflected forms she produced, a salient 79.2% corresponds to -ing inflection, while only a 20.8% accounts for past tense -ed inflection and no instance of third person singular present tense -s was produced at all. Since irregular verbs were generally perfectly used in their past forms that did not require tense inflection, while no -s inflection was produced at all, third person singular being only present in irregular verbs such as “is” and “has”, it could be concluded that the encoding of person, number and tense agreement through inflected forms is what is mostly impaired in her case, while irregular verbs that do not need inflection are perfectly fine. However, it should not be forgotten that a 20.8% of this participant’s verb inflected forms correspond to -ed inflection, showing that this process, contrary to -s inflection, is still working although on and off, pointing towards Arabatzi and Edwards proposed theory of feature-checking impairment. It is also true that -ing is very well preserved and applied to verbs that should carry it in the specific contexts in which they are utilised. On top of that, there are no instances of -ing usage in verbs that would not normally take it such as “I am wanting” or similar, even when “want” was a commonly produced verb in this participant’s speech. This also indicates awareness of the -ing usage restrictions that
exist in English.

Finally it should be pointed out that the lowest percentages of grammatically correct verb forms coincide with passive voice and past perfect as it should be expected due to the morphosyntactic complexity of the first structure and the context restrictions needed for the second.

Going into the 34.1% that reflects the grammatically incorrect verb instances, a 48.3% of it corresponds to bare stem substitutions. In many cases the target form is a bit uncertain although the possibilities are mainly limited to -ed inflected past simple tense – “walk” for “walked”; “jump up” for “jumped up”; “he drop it” for “he dropped it”; “so we dance” for “so we/they danced”– or third person singular present tense -s inflected – “he need” for “he needs”; “here it go” for “here it goes”.

What is particularly clear is that these problems manifest mainly for regular verbs, opposite to the correctly produced irregulars such as “was”, “had”, “caught”, “saw”, “said” or “struck”, evidencing that there is no lack of tense awareness but rather a difficulty in encoding tense through inflection. A conclusion for person and number is not as easy to draw; no -s suffixes are present at all and English does not count with any other strategies to show such agreement other that the verbs be and have.

A 20.7% of the ungrammatically used verbs goes down to -ing forms. In this case, the typical error does not relate to missing auxiliaries as in previous cases, although a missing subject and auxiliary happened three times in her speech production. However, the most common mistake for this patient's -ing usage falls on apparent problems with impersonal constructions, on and off. Problems with impersonal constructions can be seen in sentences like “the boy is raining cats and dogs” or “he raining”, where a subject is occupying the place of the dummy “it”, and the last one also manifests problems with the auxiliary verb.

A 17.2% reflects problems with the copula be in third person singular present simple. However, those issues do not relate to agreement but have to do with word order of the clause components. A clarifying example could be “the bread is on the peanut butter and jelly”. Moreover,
some clauses that involved the verb to be in third person singular present simple failed to be produced such as “One day the boy he is...”. Moreover, “is” was used, as happened in other cases, to introduce direct speech, although with non-canonical word order: “is Cinderella – I'm gonna go because the clock struck twelve”. Most probably in that direct speech a lacking auxiliary can be detected too “because the clock has (just) struck twelve”.

And copula be does not only fail in present tense, but also appears to be faulty in past simple, amounting to half of the errors present in the remaining 13.8% of the incorrectly used verb forms. “The window was angry” and “the slippers was too big” show problems with copula be in different ways. The first one is not working semantically due to impaired word order and missing elements, since it was the man who was angry about the broken window but not the window itself, while the second case is clearly failing in number agreement, adding up to and evidencing again her general problem with encoding person and number agreement in verb production. Other problems with past simple tense manifest in clauses like “he gave it to the ball” and “he tried and too small”. In the first one issues with order of components in the clause seem the most plausible explanation for the utterance, while the second sentence is lacking the direct object such as a noun phrase or a replacing pronoun: “he tried the slipper and it was too small” or “he tried it and it was too small”. Again here the problem with copula be is made clear and this is also a great example of how issues with verbs are difficult to measure because they are at times dropped from speech completely and thus impossible to compile and study in percentages.

To conclude, this participant's findings point to difficulties with number and person agreement more than tense agreement, and when tense problems arise, they seem to appear in relation to verbs that require inflection more than in irregular verbs that are not affected by affixation. This comes to demonstrate that issues might relate no so much to a lack of awareness of verb tense usage but more to an impairment in encoding tense through affixation. In relation to -ing inflected forms, results here show that progressive aspect is balanced with non-progressive aspect,
which advances that -ing inflection does not seem to be overused or overgeneralised in replacement of other verb forms, even though -ing is very productive in English, as it has been explained above. Scale18a data has shown interesting findings also in relation to difficulties with copula be that had not been observed in the previous participants, although it might be partly due to their more limited speech production capacities.

5.6 Joint Analysis:
A combination of figures from the four different participants might be a good starting point to analyse the use of -ing inflection, considered jointly with general verb usage and verb inflection processes. Among the verbs produced by the four participants, a 38.9% accounts for grammatically correct employed forms, while the remaining 61.1% reflects grammatically impaired ones. These figures tell that agrammatic patients do present problems with verbs, generally categorised as content words, just like nouns.

The general pattern shows that, among the rightly employed verb forms, a 49.5% can be identified with what has been named in this essay “fixed expressions”. These refer to recurrent structures that three out of the four participants analysed presented and repeated an important amount of times during their speech production: “I (don't) know”, “I think (…/so)”. 18.6% corresponds to imperative forms. The use of imperatives was not the most expectable from the elicitation tasks participants had to perform. However, when imperatives were produced they were mostly employed properly, indicating that this verb form does not pose great problems in agrammatism, possibly due to the few requirements imperatives have: they do not demand a subject neither any sort of inflection, and objects can often be dropped without rendering the structure ungrammatical.

The third most used form employed in grammatically correct terms was the -ing inflection, mostly as present participle encoding progressive aspect properly combined with the necessary
auxiliary either in past or present tense, but also as a gerund creating nouns, or as adjectives, which on the whole amount to an approximate figure of 14.7%.

Past simple was the next most rightly produced verb form, 8%. However it is noteworthy that a 94.7% of the properly produced past simple forms was carried by irregular verbs that did not present any sort of affixation. On the contrary, only a 5.3% of the correctly produced end employed past simple forms was encoded in a regular verb with its proper -ed inflection. This might show that agrammatic patients do not have problems with past tense in itself, and when the impairment is not extremely limiting they appear to be mostly aware of when to use it. However, in the presence of regular verbs, past tense seems much more problematic than for irregulars as it is reflected in the findings. This fact could point to an impairment in inflecting regular verbs for past tense rather than to the existence of a general impairment with past tense in itself.

Correctly produced present simple forms account for a 4.4% out of the rightly produced verb forms in their totality. On top of this, all rightly produced present simple verb forms corresponded either to first person singular instances that therefore did not demand any sort of affixation, or third person singular forms of irregular verbs like be, that again are not inflected. Very relevant is the fact that present simple of regular verbs involving third person singular subjects was impaired in all instances and for all participants, finding no representation of -s inflection neither in grammatically correct constructions nor in ungrammatical ones.

A 4% of the rightly used verbs represents infinitives that, although limited, appear in contexts of subordination to a main verb, such as in “He went to see Cinderella”, “I want to go” or the going to construction “I'm gonna go”. Subordinate clauses, generally considered complex, are therefore correctly projected in the tree in this particular case that involves the to-infinitive construction. Moreover, there are no instances of incorrectly used infinitives in any of the four participants.

To finish up with the correctly used verbs and verb related forms, it is worth mentioning that
a 0.4% accounts for -ing gerund taking a noun role, and the last 0.4% to an instance of past perfect. While the past perfect production seems to be an exception from the regular pattern, the -ing gerund formation for creating nouns is most probably occurring in a greater scale. However, due to the lack of sufficient context, in many cases -ing instances have been counted as present participle while they might have been produced with the intention of creating nouns or even adjectives, although the latter as a category is already pretty restricted no matter the formation procedure.

Among the grammatically incorrect verbs produced, the highest percentage corresponds to -ing instances of diverse sorts, which amount to 39.2%. The greatest problem with -ing usage when performing progressive aspect marking does not actually lie in the -ing form itself, which is morphologically well constructed and contextually well employed. The issue comes with the lack of the necessary auxiliary verb that should be marking tense and number. Inflection with -ing seems to be unimpaired if it were not for the problems in the auxiliary. Adding up to this, another issue that rendered improper structures did not involve the verb directly neither in aspect marking nor in auxiliary for tense and number but had to do with word order, as happened in constructions such as “the boy is raining cats and dogs”. However this was observed just in one participant.

As nouns and adjectives, the problem is again external to -ing itself. The language impairment that participants present does not often allow for a full mophosyntactically and lexically correct linguistic strings, therefore complicating the process of noun and adjective recognition for -ing forms that could take diverse functions. In any case, verbs inflected in -ing were very much expected from the elicitation tasks, specially in action-pictures' description, and the fact that participants produced them generally when expected shows that they do not pose problems in agrammatism, but rather their immediate linguistic context. Moreover, -ing inflection does not seem to be overused replacing other verb forms, neither is applied to verbs that do not normally carry it, like “want”, evidencing the preservation of progressive aspect marking in those who suffer from this particular type of aphasia.
A 33.3% of the impaired verbal production involves bare stems. Bare stem substitution has been appointed as the most common phenomena in agrammatic subjects due to their tendency to simplify language to the maximum while still preserving content words. Nevertheless, although the bare stem percentage seems quite high, it is lower than the prevalence of -ing, and it also hides a number of aspects that should be taken into account before drawing conclusions. Part of the bare stem situations gathered in the 33.3% should not be exactly considered substitutions of other more complex or inflected verb forms that would have been encoding a particular tense or overtly marked person and number agreement. In many cases, the target form would most probably have been the bare stem itself, but the lack of greater linguistic context makes it difficult to assert with all certainties. In the clear cases in which the bare stem is undoubtedly used for replacing another verb form, it generally does so for the third person singular present tense -s inflected form. In some cases the target is not as clear and it could be either -s inflection or past tense -ed. However, it is striking that, while -ed inflection still appears on and off, and past simple encoding, as well as past participle, seems very much unimpaired for irregular verbs, the third person singular present simple form with -s inflection does not appear at all, although there are instances of irregular verbs in third person singular present simple like “is”, but these are more limited. These facts might evidence a greater impairment in the encoding of person and number agreement, or a general problem with verb inflection for encoding the three aspects concerned here – verb tense, person and number. Person and number might seem more impaired due to the lesser possibilities of encoding them in different ways: the group of irregular verbs for past tense is much larger than for present tense, reduced to the verbs “to have” and “to be”. In any case, the fact that -ed inflection is present on and off while -s inflection is absolutely absent could still point to a greater difficulty for person and number inflection, or even person, number and tense inflection altogether since -s inflection is in its nature more complex than other inflection affixes, encoding those three aspects in conjunction.

Following with a 16.5% comes past simple, including both regular -ed inflected and
irregular non-inflected forms. Problems here range from lack of explicit subject, rendering the structure ungrammatical, to word order issues that, although often grammatically correct, lacked coherence in terms of meaning, as in the case of “and the window was angry”.

Present simple instances add up to a 6.2% out of the total misused verb occurrences. The percentage accounts only for instances of irregular verbs, more specifically the verb “to be” in third person singular. Others which target might have been present simple for any other person and number in regular verbs that presented grammatical problems have been counted in the bare stem instances for obvious reasons: any form of present simple tense for regular verbs other than third person singular coincides with the bare stem of the verb. This is another reason why the results for bare stem category should be cautiously analysed.

Finally, a 5.9% involves past participle instances in which the target as such was absolutely clear. Forms that posed doubts on whether some -ed form was meant to work as past simple or past participle were included in the past simple category. However, others which were clearly meant to work as past participles, or past participles of irregular verbs which are undoubtedly identifiable as such, were included for analysis here. The main issue with past participles coincides with that of progressive aspect marking for -ing forms: the auxiliary verb that must accompany them to encode tense, person and number is generally absent. In fact, past participles are also quite productive in English, being used in present and past perfect constructions, passive voice and even as adjectives. Due to the characteristics of agrammatism, and same as with -ing, it is not always easy to accurately categorise every instance of past participle correctly.

Since this paper's aim was to deal with verb inflection, paying close attention to -ing affixation, it is interesting to gather all verb and verb related inflected forms produced by the four participants no matter if their usage was grammatical or ungrammatical in order to extract a percentage that could give an insight into the general implementation of the affixation process. Taking the data of the four participants into account, a 39.3% of all verbs produced were found to
carry some sort of inflection. However, from this 39.3, 83.8% corresponded to -ing inflection in its diverse forms, and the remaining 16.2% to -ed inflected verb instances. No -s inflection was produced at all, as it has already been mentioned.

These last results show how -ing inflection is by far the best preserved verb inflection in English agrammatism, and therefore all functions performed by it could be in a way considered unimpaired – progressive aspect, gerund for noun formation, and adjective formation. Inflection in -ed is much more limited, but when it appears it does performing diverse functions: adjectives like “scared” or “disappointed”, past simple as in “picked up”, “wanted to” or “tried”, past participle in passive voice such as “I was stationed in Alabama”, and other unclear instances due to the lack of sufficient linguistic context: “married”, which could either target “get married” or simply a past simple “she married the prince”; and “words mixed up”. Findings show the greatest problems have to do with -s inflection, but it is not easy to discern whether the issue for this difficulty lies in number agreement, person agreement, tense encoding or a combination of the three. This could be the object of further investigations. Moreover, a comparison between the output of agrammatic subjects and controls in order to more accurately decide whether agrammatic people tend to overuse the -ing when contrasted with the output of controls could also be very interesting as it would offer a more realistic analysis of the results.

6. CONCLUSION:

This study has provided a general overview to agrammatism and its characteristics by considering knowledge from diverse fields of study, mainly neurolinguistics in the initial part of the paper so as to explain the nature of the condition and the possible causes for the linguistic impairments present in agrammatism, and linguistics in the main body and data analysis, to gain a closer understanding of what parts of speech were actually impaired and to what extent, and to check the different
theories gathered in the previous studies section.

Previous studies had pointed out that *-ing* inflection could be an interesting aspect to analyse, partly motivating the focus of analysis of this study. Since *-ing* is a very productive suffix it could be that patients tend to overuse it, or they may on the contrary fail to use it properly in one sense while preserving others, or vice versa. Moreover, when used as a present participle to encode progressive aspect, which is possibly its most common usage, auxiliary verbs also had to be considered, making the study richer and adding up to other previous findings. On top of that, in order to objectively decide whether a generalised substitution of diverse verb forms for *-ing* inflected forms should be considered as real, all verb instances had to be collected. The collection of all verb instances that was meant to be mainly procedural, threw pretty interesting findings gathered in detail in the data analysis section above. A summarised version of the conclusions from the data analysis will be collected here and considered in relation to the information gathered in previous studies.

Starting from what was originally the main focus, *-ing* inflection, it should be noted that *-ing* was used by all four participants, but not overused as percentages for each participant show as well as the general percentage of its usage. In fact, inflected forms as a whole accounted for a 39.3% of all verb instances produced, so it would be inaccurate to say that *-ing* inflection had taken over other verb forms. It is true that out of the total of inflected verbs, a major 83.8% accounts for *-ing* instances, showing that other morphological procedures in relation to verbs might be lacking or faulty, but not that *-ing* was being overused in any case.

*-ing* inflection has been found to be rightly applied contextually and semantically, never inflecting verbs that would not generally carry it. The main problem affecting *-ing* inflected verbs appeared in the auxiliary verb “to be” that should accompany it encoding tense, person and number. In a general basis, the auxiliary verb was simply omitted, totally absent rather than substituted for its bare stem or for some discordant form of the same paradigm. However, a 14.7% out of the total
production of grammatically correct verb instances corresponds to present and past continuous forms with the auxiliary be working absolutely fine and in agreement with the specific subject, objects and adjuncts in each case. The fact that the problem, although persistent, does not take place in all cases links these findings with the conclusion drawn by Arabatzi and Edwards related to faulty feature-checking procedures. In this case, feature-checking procedures could be faulty for past and present continuous since it apparently works on and off, at times allowing for ungrammatical usages of -ing alone, dropping the auxiliary, and at times requiring the auxiliary to be present and always rightly produced in agreement with subject, object and adjuncts. If the errors were persistent and always occurred then it could be argued that auxiliary verbs in combination with -ing structures would be simply inexistent, matching the condition's label of agrammatism. However, since the structure is perfectly employed in some cases, it cannot be said that it is inexistent but rather that some in-between process is not working properly. Impairments in feature-checking procedure could account for this inconsistent behaviour.

In relation to -ing inflection for other purposes, like gerund-noun formation or adjective formation, and due to the quite serious impairment of the participants, it was at times difficult to tell the category under which a specific -ing form was to be placed into. However, a number of instances were pretty much for certain performing adjective function, as in the case of “life threatening”, and others as nouns, like in “spelling no longer”. Although no specific count was performed for them, nouns amounted to the most produced word category, although -ing gerund-noun formation was limited. Few adjectives were produced in the speech of the four participants, but even this being the case, some -ing adjectives were also found. This shows that the diverse functions of -ing were still preserved to a certain degree in all participants.

In more general terms and talking about verb inflection as a whole, as it has been pointed out, a 83.8% of the total verb inflection present in the four transcripts accounted for -ing usage, while the remaining 16.2% were instances of -ed inflection in its diverse functions: past simple, past
participle and even adjective formation. In fact, it is noteworthy that *-ed* adjective formation seemed pretty natural and was present in two or three out of the four participants, depending on the analysis of a certain *-ed* instance: “scared”, “disappointed” and “mixed up”, the latter being ambiguous due to the lack of linguistic context. This might be pointing towards a pattern in which *-ed* for adjective formation might be less impaired than *-ed* in its verbal roles, that seems to pose greater problems. However, this should not lead to false assumptions about a total impairment in past tense encoding. Findings in this study contradict those in Faroqi-Shah and Thompson who had found the same degree of impairment for regular and irregular verbs. Here, however, patients showed greater problems in encoding past tense in regular verbs, which they very often substituted for the bare stem, than in encoding past tense in irregular verbs, commonly preserved and produced in its right past tense form both for past simple and present participle. It is true that Faroqi-Shah and Thompson's study involved elicitation tasks of a very different nature, and their aim was to prove something very specific in relation to time diacritics. However, in free narrative speech, what they refer to as time diacritics were not produced at all, so there is not a possible way to support or discard their theory. What was actually seen as a pattern was the greater preservation of irregular forms in past tense than of regular forms with *-ed* inflection. A possible explanation here could go down to this particular affixation process, that although existent, seems to work on and off same as with the auxiliary verb in present and past continuous forms. However in this case the issue seems to directly affect the affixation process while the present and past continuous *-ing* affixation was absolutely unimpaired. To a certain extent there is still agreement with Faroqi-Shah and Thompson's conclusion that argues against a generalised morphological problem. In the light of the findings extracted in the present study a generalised morphological problem must also be discarded at once. If that were the case, affixation should have been either absolutely absent or simply much more faulty. However, *-ing* inflection was pretty much preserved, and *-ed* inflection still accounted for a certain percentage and appeared performing its diverse functions in the four participants studied,
even when three of them were in fact very unimpaired. So a generalised morphological impairment is, same as for Faroqi-Shah and Thompson, discarded, but their theory of diacritic encoding and retrieval could not be proven feasible due to lack of evidence.

Moreover, it was striking to find a total absence of third person singular present tense -s inflected instances in all four participants. In fact, participant Scale18a, who was the least impaired of all in general terms, and who even produced an instance of past perfect, failed completely to encode number and person agreement for third person singular present tense in verbs that required -s inflection. The only instances of third person singular that were produced grammatically correct by all participants were those involving the verb “to be” both as auxiliary and copula, the only verb together with “have” that does not need -s inflection. Therefore, another apparent problem, this time much more serious to the extent of opening up the possibility of a total inflection impairment, falls on -s verb inflection. Opposite to -ed inflection that appeared on and off, making it possible to apply the faulty feature-checking procedure theory, -s inflection is absolutely absent and this could indicate its complete impairment. However, since -s verb inflection is in fact pretty complex, merging tense, number and person agreement, it is quite difficult to discern whether the problem lies on number encoding, person encoding, tense encoding or a combination of the three. The limited number of participants analysed might also be restricting the findings, and further research should be carried out in order to accurately categorise the nature of the -s inflection issue, which, not being the aim of this study in any case, delivered some interesting results.

Overall, this study has contributed to widen the existing materials on the study of agrammatism and has proposed some theories for the different findings: faulty feature-checking procedures for present and past continuous tense encoding in relation to auxiliary verb problems, also faulty feature-checking procedures for past tense encoding through -ed affixation, and a possible greater impairment in relation to third person singular present tense -s inflected forms that could be of a different nature and should be further studied for more accurate results.
Moreover, it has been proven that there is no such “agrammatism” in agrammatism, bringing into question the suitability of the label itself. Something like dysgrammatism, dys- with the meaning of faulty, could better reflect the characteristics of the phenomena that, on the other hand, are always mutable and depend on each particular patients and his/her circumstances. As it was pointed out in the theoretical part, every brain is different, every neuronal network is built up in different ways, and it is not possible to predict with all certainties what will characterise the speech of each patient. A generalisation such as the one carried by the term agrammatism can dangerously lead to think that all patients with such disorder will lack the ability to produce grammar at all when it is pretty obvious that this is not the case. Grammar in agrammatism is at times faulty. Be it down to some particular feature-checking procedures or to an impairment of other nature, it is clear that patients do have a sense of grammar that they apply, at times with correct and at times with impaired outcomes. Therefore, a revision of the label “agrammatism” is here proposed with the expectations of further consideration.
7. BIBLIOGRAPHY:


8. APPENDIX

Wright201a

0  @Loc: AphasiaBank/English/Aphasia/Wright/wright201a.cha

1   @Begin
2   @Language: eng
3   @Participants: PAR wright201a Participant, INV Investigator
4   @ID: eng|Wright|PAR|55;1.|male|Broca|wright201a|Participant||
57.6|
5   @ID: eng|Wright|INV|||wright201a|Investigator||
6   @Media: wright201a, video
7   *INV: www. ▶
8   %exp: talking off camera .
9   @G: Speech
10  *INV: I'm gonna [: going to] be asking you to do some talking . ▶
11  %mor: pro:sub|I-aux|be&1S part|go-PRESP inf|to aux|be part|ask-PRESP
12  pro|you inf|to v|do qn|some n:gerund|talk-PRESP .
13  %gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|6|INF 5|6|AUX 6|3|XCOMP 7|6|OBJ
8|9|INF
14  9|6|XCOMP 10|11|QUANT 11|9|OBJ 12|3|PUNCT
15  *INV: how do you think your speech is these days ? ▶
16  %mor: adv:wh|how mod|do pro|you v|think pro:poss:det|your n|speech
cop|be&3S det|these n|day-PL ?
17  %gra: 1|4|LINK 2|4|AUX 3|4|SUBJ 4|0|ROOT 5|6|MOD 6|7|SUBJ 7|4|COMP
8|9|DET
19  9|7|PRED 10|4|PUNCT
20  *PAR: ah &=ges:so_so rough . ▶
21  %mor: co|ah v|rough .
22  %gra: 1|2|COM 2|0|ROOT 3|2|PUNCT
23  *PAR: &head:yes yeah . ▶
24  %mor: co|yeah .
25  %gra: 1|0|INCROOT 2|1|PUNCT
26  *INV: can you say more ? ▶
27  %mor: mod|can pro|you v|say pro:indef|more ?
28  %gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|3|OBJ 5|3|PUNCT
29  *PAR: &uh well &uh (.) &head:no &shrugs &n I don't know . ▶
30  %mor: co|well pro:sub|I mod|do-neg|not v|know .
31  %gra: 1|5|COM 2|5|SUBJ 3|5|AUX 4|3|NEG 5|0|ROOT 6|5|PUNCT
32  *INV: okay . ▶
33  %mor: co|okay .
34  %gra: 1|0|INCROOT 2|1|PUNCT
35  @G: Stroke
36  *INV: &=clears:throat do you remember when you had your stroke ? ▶
37  %mor: mod|do pro|you v|remember conj|when pro|you v|have&PAST
pro:poss:det|your n|stroke ?
38  %gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|LINK 5|6|SUBJ 6|3|CJCT 7|8|MOD
8|6|OBJ
40  9|3|PUNCT

48
what are your first memories after [/] after you had your stroke ?
puzzles and &uh math no longer . [+ gram] ▶
and &uh spelling &uh no no longer . [+ gram] ▶
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longer . 
and &uh spelling &=head:no no longe...
thinking back can you tell me a story about something important

that happened to you in your life?

could be happy or sad or from any time.

from when you were a kid or more recently.

and when you know near school.

now I'm gonna show you some pictures.
Okay.

Take a little time to look at these pictures.

They tell a story.

When you've had a chance to look at them all tell me the story you see there with a beginning and an end.

You could look sorry and points: picture you can look at the pictures as you tell the story.

Yeah.

You can look at the pictures as you tell the story.
little kid. [+ gram] ▶

and &uh soccer. [+ gram] ▶

& a and now +"/. [+ gram] ▶

coord and adv now +"/. ▶

&uh &um <okay the> [ ] &talks: self okay [ ] okay +... ▶

co|okay +...

c|oh co|no . ▶

&uh &ges &uh ceiling. [+ gram] ▶

det|the n|man cop|be &3S +"/. ▶

&ges|okay ceiling . [+ gram] ▶

co|oh co|no . ▶

&ges|okay ceiling . ▶

oh no ! ▶

c|oh co|no . ▶

&ges|okay ceiling. ▶

co|oh co|no . ▶

&ges|okay ceiling. ▶

co|yeah . ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

co|yeah . ▶

oh no ! ▶

c|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no ! ▶

&ges|okay ceiling ▶

co|oh co|no !
and when you've had a chance to look at every one &um tell me the story you see there with a beginning a middle and an end . ▶

and again you can &=points:pictures look at the pictures as you tell the story . ▶
PUNCT
*PAR: okay . [+ exc] ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: wife and little kid . [+ gram] ▶
%mor: n|wife coord|and adj|little n|kid .
%gra: 1|0|INCROOT 2|1|CONJ 3|4|MOD 4|2|COORD 5|1|PUNCT
*PAR: and n:o &uh umbrella . [+ gram] ▶
%mor: coord|and qn|no n|umbrella .
%gra: 1|0|INCROOT 2|3|QUANT 3|1|COORD 4|1|PUNCT
*PAR: and raining stun@u [: soon] [* p:n] . [+ gram] ▶
%mor: coord|and part|rain-PRESP adj|soon .
%gra: 1|0|INCROOT 2|1|COORD 3|2|JCT 4|1|PUNCT
*PAR: +" &head:no &hand:no no no . ▶
%mor: co|no co|no .
%gra: 1|2|COM 2|0|INCROOT 3|2|PUNCT
*PAR: +" no , come_on . ▶
%mor: co|no cm|cm co|come_on .
%gra: 1|3|COM 2|1|LP 3|0|INCROOT 4|3|PUNCT
*PAR: +" come_on &ges:umbrella . ▶
%mor: co|come_on .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: +" no &head:no . ▶
%mor: co|no .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: okay . [+ exc] ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: and okay // the little children [: child] [* s:r] is
byebye
  &=waves . [+ gram] ▶
%mor: coord|and det|the adj|little n|child aux|be&3S co|byebye .
%gra: 1|6|LINK 2|4|DET 3|4|MOD 4|6|SUBJ 5|6|AUX 6|0|ROOT 7|6|PUNCT
*PAR: +" okay . ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: and school . [+ gram] ▶
%mor: coord|and n|school .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: but +"/. ▶
%mor: conj|but +"/. ▶
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: oh no raining now ! [+ gram] ▶
%mor: co|oh co|no n:gerund|rain-PRESP adv|now !
%gra: 1|3|COM 2|3|COM 3|0|ROOT 4|3|JCT 5|3|PUNCT
*PAR: mother +"/. ▶
%mor: n|mother +"/. ▶
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: +" come_on . ▶
%mor: co|come_on .
"no> [/]

boyaugh run hauling ass now .

now .

" umbrella now ? [+ gram] ▶

adj okay adj okay .

and finally & ges & head:yes okay okay . ▶

umbrella and school . [+ gram] ▶

coord and final\dn-LY n\umbrella and n\school .

" happen-PREP .

10\OBJ

9\OBJ

8\OBJ

*PAR: okaya . [+ exc] ▶
*PAR: &uh cat &tr &uh trim@u [: climb] [* p:n] tree . [+ gram] ▶
%mor:   n|cat v|climb n|tree .
%gra:   1|2|SUBJ 2|0|ROOT 3|2|OBJ 4|2|PUNCT

*PAR: and stuck now . [+ gram] ▶
%mor:   coord|and v|stick&PAST adv|now .
%gra:   1|0|INCROOT 2|1|COORD 3|2|JCT 4|1|PUNCT

*PAR: &=points:picture and father is climbing up tree . [+ gram] ▶
%mor:   coord|and n|father aux|be&3S part|climb-PRESP prep|up n|tree .
%gra:   1|4|LINK 2|4|SUBJ 3|4|AUX 4|0|ROOT 5|4|JCT 6|5|POBJ 7|4|
AUX 8|7|NEG 9|4|CJCT 10|1|PUNCT

*PAR: &=points:picture and now little (.) &uh kitty soon &=hand:soon I don't know . [+ gram] ▶
%mor:   coord|and adv|now ad|little n|kitty adv|soon pro:sub|I mod|do~neg|not v|know .
%gra:   1|0|INCROOT 2|1|COORD 3|2|JCT 4|3|MOD 4|1|COORD 5|4|NJCT 6|9|SUBJ 7|9|

*PAR: &=points:picture but see barking now . [+ gram] ▶
%mor:   conj|but v|see part|bark-PRESP adv|now .
%gra:   1|2|LINK 2|0|ROOT 3|2|COMP 4|3|JCT 5|2|PUNCT

*PAR: &=shrugs why I don't know . [+ exc] ▶
%mor:   adv:wh|why pro:sub|I mod|do-neg|not v|know .
%gra:   1|5|LINK 2|5|SUBJ 3|5|AUX 4|3|NEG 5|0|ROOT 6|5|PUNCT

*PAR: &=points:picture father and barking a_lot . [+ gram] ▶
%mor:   n|father coord|and part|bark-PRESP adv|a_lot .
%gra:   1|0|INCROOT 2|1|COORD 3|2|COORD 4|3|JCT 5|2|PUNCT

*PAR: I don't know . [+ exc] ▶
%mor:   pro:sub|I mod|do-neg|not v|know .
%gra:   1|4|SUBJ 2|4|AUX 3|2|NEG 4|0|ROOT 5|4|PUNCT

*PAR: yeah . [+ exc] ▶
%mor:   co|yeah .
%gra:   1|0|INCROOT 2|1|PUNCT

*PAR: &=points:picture and &s &uh okay [//] now a bicycle and ladder . [+ gram] ▶
%mor:   coord|and adv|now det|a bi#n|cycle coord|and n|ladder .
%gra:   1|0|INCROOT 2|1|COORD 3|4|DET 4|2|POBJ 5|4|CONJ 6|5|COORD 7|1|PUNCT

*PAR: I don't know &=shrugs . [+ exc] ▶
%mor:   pro:sub|I mod|do-neg|not v|know .
%gra:   1|4|SUBJ 2|4|AUX 3|2|NEG 4|0|ROOT 5|4|PUNCT

*PAR: oh &=points:picture bird singing . [+ gram] ▶
%mor:   co|oh n|bird adj|sing-PRESP .
%gra:   1|3|COM 2|3|MOD 3|0|ROOT 4|3|PUNCT

57
and fire chief now running.
and fire n|chief adv|now part|run-PRESP.
and &uh engine?
no +...
oh_man &uh rapid&ges:water yes.
and girl and boy <and okay> <and tidal no> üum and
river.
and [/] and oh_man &uh rapid&ges:water yes.
and fire and ladder and kitty soon.
and fire coord|and n|ladder coord|and n|kitty adv|soon.
and fire chief and kitty soon.
and fire and ladder and kitty soon.

alright pro:exist|here~cop|be&3S pro:indef one qn|more n|picture.
take a look at what you see there.
and tell me the story with a beginning a middle and an end.
okay.
life threatening yes.
and girl coord|and n|boy coord|and n|river.
and [/] and oh_man &uh rapid&ges:water yes.

alright here's one more picture.
take a look at what you see there.
and tell me the story with a beginning a middle and an end.
okay.
life threatening yes.
and girl coord|and n|boy coord|and n|river.
and [/] and oh_man &uh rapid&ges:water yes.
and climb &uh fire+chief no &uh but somewhat &=shrugs .

and rescue soon . [+ gram] ▶

det|these n|picture-PL mod|might v|remind pro|you prep|of adv:wh|how pro|it v|go-3S .

have you ever heard of the story of Cinderella ? ▶

I think so yeah . ▶

take a look at all these pictures . ▶

and then I'll take the book away.

and ask you to tell me the story of Cinderella in your own words.

now tell me as much of the story of Cinderella as you can.

you can use any details you know about the story as well as the pictures you just looked at.

okay.
Cinderella

A long time ago. [+] gram

And now [. /] and little kids

And now okay [//] mice and horse and little chiming [. /] invitation princess oh. [+] gram

Why? [+] gram
Okay. So uh disappointed. But uh shrugs. But oh and now (arrive). But no. And oh. And horse and pumpkin or larger &ges and /] and +"/. Uh and horse and pumpkin or larger &ges and [/] and +"/. Uh and horse and pumpkin or larger &ges and [/] and +"/. Oh yeah. Uh and [///] Uh & so [///] Uh okay [///] and Uh rgrv@u [:

arrive]

[* p:n] . [+ gram] ❯

|mor: | coord|and v|arrive .
|gra: | 1|0|INCROOT 2|1|COORD 3|1|PUNCT
*PAR: | &ges:ride_horse and oh yeah . [+ gram] ❯
|mor: | coord|and co|oh co|yeah .
|gra: | 1|2|COM 2|0|INCROOT 3|2|PUNCT
*PAR: | &ges:dress . [+ gram] ❯
|mor: | co|oh co|yeah .
|gra: | 1|0|INCROOT 2|1|COORD 3|1|PUNCT
*PAR: | oh yeah . [+ exc] ❯
|mor: | co|oh co|yeah .
|gra: | 1|2|COM 2|0|INCROOT 3|2|PUNCT
*PAR: | &uh and [///] &uh & so [///] &uh okay [///] and &uh rgrv@u [:

arrive]
and the man and wife. [+ gram] ▶
but now time. [+ gram] ▶
con but adv. [+ gram] ▶
and run &uh &uh slipper. [+ gram] ▶
but &uh key now lock &ges;lock . [+ gram] ▶
and &ges;open +"/. [+ gram] ▶
+" try it . ▶
+" yeah okay . ▶
+" you_know +... ▶
no but you_know +... ▶
slip it . [+ gram] ▶
+" yeah okay . ▶
+" you_know +...
and +"/. ▶
+" oh yeah . ▶
+" come_on &=points . ▶
+" &uh king and you &=points . [+ gram] ▶
n|king coord|and pro|you .
and +"/. ▶
and +"/. ▶
+" two . ▶
+" yes . ▶
+" come_on &=points . ▶
+" &uh marry now . [+ gram] ▶
and marry now.

Yeah.

Okay.

Alright.

It was great.

It was great.

We're gonna move on to something just a little different.

Tell me how you would make a peanut butter and jelly sandwich.

The okay [//] bread and [//] and uh bread and [//] and uh
&=ges:spread peanut butter. [+ gram]
%mor: det|the n|bread coord|and n|bread coord|and n|peanut n|butter.
%gra: 1|2|DET 2|0|INCROOT 3|2|CONJ 4|3|COORD 5|4|CONJ 6|7|MOD 7|5|COORD
8|2|PUNCT
*PAR: but &uh &=ges:spread knife. [+ gram]
%mor: conj|but n|knife.
%gra: 1|0|INCROOT 2|1|COORD 3|1|PUNCT
*PAR: &=ges:spread and +"./. [+ gram]
%mor: coord|and +"./.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: +" oh okay. ►
%mor: co|oh co|ok|ay.
%gra: 1|2|COM 2|0|INCROOT 3|2|PUNCT
*PAR: and [/] and &uh jelly. [+ gram]
%mor: coord|and n|jelly.
%gra: 1|0|INCROOT 2|1|COORD 3|1|PUNCT
*PAR: and &=ges:spread yes. [+ gram]
%mor: coord|and co|yes.
%gra: 1|0|INCROOT 2|1|COORD 3|1|PUNCT
*PAR: and &=ges:bread_together. [+ gram]
%mor: coord|and.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: yeah. [+ exc] ►
%mor: co|yeah.
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: okay. ►
%mor: co|okay.
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: www. ►
%exp: session continues with testing (BNT, VNT, repetition) not transcribed

Wright205a

@Loc: AphasiaBank/English/Aphasia/Wright/wright205a.cha

@Begin
@Languages: eng
@Participants: PAR wright205a Participant, INV Investigator
@ID: eng|Wright|PAR|55;10.|male|Broca|wright205a|Participant||
59.7|
@ID: eng|Wright|INV|||wright205a|Investigatord
@Media: wright205a, video
*INV: www. ►
%exp: extraneous talking
@G: Speech
INV: I'm going to be asking you to do some talking.

%mor: pro:sub|I-aux|be&1S part|go-PRESP inf|to aux|be part|ask-PRESP

%gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|6|INF 5|6|AUX 6|3|XCOMP 7|6|OBJ

8|9|INF

%mor: how do you think your speech is these days?

%gra: 1|4|LINK 2|4|AUX 3|4|SUBJ 4|0|ROOT 5|6|MOD 6|7|SUBJ 7|4|COMP

8|9|DET

%mor: small &=ges:little.

%gra: 1|0|INCROOT 2|1|PUNCT

*PAR: small &=head:yes.

%mor: adj|small.

%gra: 1|0|INCROOT 2|1|PUNCT

*PAR: yeah &=head:yes.

%mor: co|yeah.

%gra: 1|0|INCROOT 2|1|PUNCT

*INV: not enough speech? 

%mor: neg|not adj|enough n|speech?

%gra: 1|2|NEG 2|3|MOD 3|0|INCROOT 4|3|PUNCT

*PAR: hhmhm &=head:no.

%mor: co|no.

%gra: 1|0|INCROOT 2|1|PUNCT

*INV: hhmhm.

%mor: co|no.

%gra: 1|0|INCROOT 2|1|PUNCT

*PAR: nope.

%mor: co|nope.

%gra: 1|0|INCROOT 2|1|PUNCT

@G: Stroke

*INV: do you remember when you had your stroke?

%mor: mod|do pro|you v|remember conj|when pro|you v|have&PAST

pro:poss:det|your n|stroke?

%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|LINK 5|6|SUBJ 6|3|CJCT 7|8|MOD

8|6|OBJ

%mor: can you tell me about it?

%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|LINK 5|6|SUBJ 6|3|CJCT 7|8|MOD

*PAR: &uh: &=ges:fall fell down. [+ gram]

%mor: v|fall&PAST adv|down.

%gra: 1|0|ROOT 2|1|JCT 3|1|PUNCT

*PAR: &uh pool. [+ gram]
**INV:** what are your first memories after your stroke?

**PAR:** mm Dawn &uh wife . [+ gram] ▶

**PAR:** &uh grabs:right_leg left [: right] [* s:r-ret] [//] &uh right side . [+ gram] ▶

**PAR:** &um speech &=ges:mouth &uh &=head:no no longer . [+ gram] ▶
Important_Event

I'm gonna [: going to] be asking you to do a few more things where you need to talk . ►

so please talk as much as you can about each one because we're really interested in knowing about your language . ►

alright . ►

okay . ►

alright .
thinking back can you tell me a story about something important that happened to you in your life?

so it could be happy or sad from anytime.

when <you were a kid> [...].

happy [\] [...].

&um &uh college . [...].

n|college .

university [...].

\. 

brain &\=points:head . [...].

\. 

I know .


*PAR: see . [+ gram] ▶
%mor: v|see .
%gra: 1|0|ROOT 2|1|PUNCT
*PAR: university &um Illinois &points:self me good . [+ gram] ▶
%mor: n|university n:prop|Illinois pro:obj|me adj|good .
%gra: 1|3|LINK 2|3|SUBJ 3|0|ROOT 4|3|JCT 5|3|PUNCT
*PAR: biologies [* m:+s] . [+ gram] ▶
%mor: n|biology-PL .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: you really enjoyed college ? ▶
%mor: pro|you adv|real&dadj-LY v|enjoy-PAST n|college ?
%gra: 1|3|SUBJ 2|3|JCT 3|0|ROOT 4|3|OBJ 5|3|PUNCT
*PAR: yeah &=head:yes yeah . ▶
%mor: co|yeah co|yeah .
%gra: 1|2|COM 2|0|INCROOT 3|2|PUNCT
*INV: okay . ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
@G: Window
*INV: I'm gonna [: going to] show you these pictures . ▶
%mor: pro:sub|I-aux|be&1S part|go-PRESP inf|to v|show pro|you det|these
%gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|5|INF 5|3|XCOMP 6|5|OBJ 7|8|DET 8|5|OBJ
9|3|PUNCT
*INV: take a little time to look at these pictures, they tell a story . ▶
%mor: v|take det|a adj|little n|time inf|to v|look prep|at det|these
%gra: 1|0|ROOT 2|4|DET 3|4|MOD 4|1|OBJ 5|6|INF 6|4|XMOD 7|6|JCT 8|9|DET
15|1|PUNCT
*PAR: mhm . [+ exc] ▶
%mor: co|yes .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: &um once you've had a chance to look at them I'll ask you to tell
me the story you see there with a beginning a middle and an end . ▶
%mor: adv|once pro|you-aux|have part|have&PASTP det|a n|chance
inf|to
%gra: 1|4|JCT 2|4|SUBJ 3|4|AUX 4|0|ROOT 5|6|DET 6|4|OBJ 7|8|INF 8|6|XMOD
71
&=points: pictures and you can look at the &=pictures as you
[>]
tell the story. ▶

&=points: picture soccer. [+ gram] ▶

&=points: picture &uh window broken. [+ gram] ▶

&=points: picture &uh dad. [+ gram] ▶

&=points: picture &uh &um ball. [+ gram] ▶

v|tell det|a n|story. ▶

v|take det|a n|look prep|at qn|all prep|of pro:obj|them. ▶

and then I'll ask you to tell me the story you see with a
beginning

a middle and an end. ▶

 coord|and adv:tem|then pro:sub|I~mod|will v|ask pro|you inf|to
v|tell pro:obj|me det|the n|story pro|you v|see prep|with det|a

n|beginning det|a n|middle coord|and det|a n|end .

%gra: 1|5|LINK 2|5|JCT 3|5|SUBJ 4|5|AUX 5|0|ROOT 6|5|OBJ 7|8|INF 8|5|XCOMP

9|8|OBJ 10|11|DET 11|8|OBJ 12|13|SUBJ 13|8|CJCT 14|13|JCT

15|16|DET

16|14|POBJ 17|18|DET 18|16|OBJ 19|18|CONJ 20|21|DET 21|19|
COORD 22|5|PUNCT

*INV: and again &=points:pictures you can look at the pictures as you
tell the story .

%mor: coord|and adv|again pro|you mod|can v|look prep|at det|the
n|picture-FL conj|as pro|you v|tell det|the n|story .

%gra: 1|5|LINK 2|5|JCT 3|5|SUBJ 4|5|AUX 5|0|ROOT 6|5|JCT 7|8|DET

8|6|POBJ

9|11|LINK 10|11|SUBJ 11|5|CJCT 12|13|DET 13|11|OBJ 14|5|

PUNCT

*PAR: &=points:picture &uh her &uh +... ▶

%mor: pro:poss:det|her +...

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: oh . [+ exc] ▶

%mor: co|oh .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: &uh (. ) <a girl [: lady] [* s:r-ret] no> [//] a lady . [+ gram] ▶

%mor: det|a n|lady .

%gra: 1|2|DET 2|0|INCRoot 3|2|PUNCT

*PAR: &=points:picture &uh: boy . [+ gram] ▶

%mor: co|boy .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: &=points:picture a &bluh bɹɛlə@u [: umbrella] [* n:k] . [+ gram] ▶

%mor: det|a n|umbrella .

%gra: 1|2|DET 2|0|INCRoot 3|2|PUNCT

*PAR: &uh &=points:picture raining . [+ gram] ▶

%mor: part|rain-PREP .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: &=points:picture &=laughs raining . [+ gram] ▶

%mor: part|rain-PREP .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: &=points:picture &uh &um bɐɪbɹɛlə@u [: umbrella] [* n:k] . ▶

%mor: n|umbrella .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: yeah . [+ exc] ▶

%mor: co|yeah .

%gra: 1|0|INCRoot 2|1|PUNCT

*INV: okay . ▶

%mor: co|okay .

%gra: 1|0|INCRoot 2|1|PUNCT

*PAR: sorry . [+ exc] ▶
%mor:   co|sorry .
%gra:   1|0|INCROOT 2|1|PUNCT

*INV:   no that's fine . ▶
%mor:   co|no pro:dem|that~cop|be&3S adj|fine .
%gra:   1|3|COM 2|3|SUBJ 3|0|ROOT 4|3|PRED 5|3|PUNCT

*INV:   just do your best . ▶
%mor:   adv:int|just v|do pro:poss:det|your adj|good&SP .
%gra:   1|2|JCT 2|0|ROOT 3|4|MOD 4|2|OBJ 5|2|PUNCT

*PAR:   alright . [+ exc] ▶
%mor:   co|alright .
%gra:   1|0|INCROOT 2|1|PUNCT

@G:     Cat
%par:   alright . [+ exc]
%mor:   pro:sub|I v|know .
%gra:   1|2|SUBJ 2|0|ROOT 3|2|PUNCT

*INV:   oka(y) I'm gonna [: going to] show you another picture . ▶
%mor:   co|okay pro:sub|I-aux|be&1S part|go-PRESP inf|to v|show pro|you
%gra:   1|4|COM 2|4|SUBJ 3|4|AUX 4|0|ROOT 5|6|INF 6|4|XCOMP 7|6|OBJ

8|9|QUANT

9|6|OBJ 10|4|PUNCT

%mor:   v|take det|a n|look prep|at qn|all det|the n|thing-PL rel|that
aux|be&PRES part|happen-PRESP prep|in det|this n|picture .
%gra:   1|0|ROOT 2|3|DET 3|1|OBJ 4|1|JCT 5|7|QUANT 6|7|DET 7|4|POBJ

8|10|LINK

9|10|AUX 10|7|CMOD 11|10|JCT 12|13|DET 13|11|POBJ 14|1|PUNCT

*PAR:   I know . [+ exc] ▶
%mor:   pro:sub|I v|know .
%gra:   1|2|SUBJ 2|0|ROOT 3|2|PUNCT

*INV:   you know that picture ? ▶
%mor:   pro|you v|know pro:dem|that v|picture ?
%gra:   1|2|SUBJ 2|0|ROOT 3|4|SUBJ 4|2|OBJ 5|2|PUNCT

*PAR:   ^ yeah . [+ exc] ▶
%mor:   co|yeah .
%gra:   1|0|INCROOT 2|1|PUNCT

*PAR:   I [[]] &uh this [[]] >&=laughs . ▶
%mor:   pro:dem|this .
%gra:   1|0|INCROOT 2|1|PUNCT

*INV:   you know that picture [>] ? ▶
%mor:   pro|you v|know pro:dem|that v|picture ?
%gra:   1|2|SUBJ 2|0|ROOT 3|4|SUBJ 4|2|OBJ 5|2|PUNCT

*PAR:   >&=head:yes yeah [<] yeah . [+ exc] ▶
%mor:   co|yeah co|yeah .
%gra:   1|2|COM 2|0|INCROOT 3|2|PUNCT

*INV:   okay . ▶
%mor:   co|okay .
%gra:   1|0|INCROOT 2|1|PUNCT

*INV:   well take a look at everything that's happening . ▶
Alright.

And when you're ready tell me a story about what you see with a beginning a middle and an end.

I know but...

Points: Picture uh cats.

Points: Picture uh trees.

Points: Picture &=ges: down &uh fell down.

Points: Picture &uh dog.

Points: Picture &uh girl.

Points: Picture &uh firemen.

Points: Picture &uh two people.
I don't know.

Okay.

Okay.

Here's another picture.

Take a look at this.

And when you're ready tell me a story about what you see happening in that with a beginning and an end.

Det a n story prep about pro:wh what pro:you v see part happen-PRESP prep in pro:dem that prep with det a n beginning det a n middle coord and conj when pro:you-cop be PRES adj ready v tell pro:obj me det a n story prep about pro:wh what pro:you v see part happen-PRESP prep in pro:dem that prep with det a n beginning det a n middle coord and conj when pro:you-cop be PRES adj ready v tell pro:obj me
*INV: okay . ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
@G: Cinderella_intro
*INV: now I'm gonna [: going to] ask you to tell a story . ▶
%mor: adv|now pro:sub|I~aux|be&1S part|go-PRESP inf|to v|ask pro|you
%gra: 1|4|JCT 2|4|SUBJ 3|4|AUX 4|0|ROOT 5|6|INF 6|4|XCOMP 7|6|OBJ
8|9|INF
%mor: 9|6|XCOMP 10|11|DET 11|9|OBJ 12|4|PUNCT
%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|5|DET 5|3|OBJ 6|5|NJCT 7|6|POBJ
8|3|PUNCT
*PAR: &=laughs . ▶
*INV: do you remember the story of Cinderella ? ▶
%mor: mod|do pro|you v|remember det|the n|story prep|of n:prop|
Cinderella
%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|5|DET 5|3|OBJ 6|5|NJCT 7|6|POBJ
8|3|PUNCT
*PAR: yeah . ▶
%mor: co|yeah .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: remember much about it ? ▶
%mor: v|remember qn|much prep|about pro|it ?
%gra: 1|0|ROOT 2|3|QUANT 3|1|JCT 4|3|POBJ 5|1|PUNCT
%mor: co|yeah .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: (o)kay . ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: I'm gonna [: going to] give you this book just to refresh your
memory . ▶
%mor: pro:sub|I~aux|be&1S part|go-PRESP inf|to v|give pro|you det|
this
%gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|5|INF 5|3|XCOMP 6|5|OBJ 7|8|DET
8|11|SUBJ
*PAR: alright . ▶
%mor: co|alright .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: take a look . ▶
%mor: v|take det|a co|look .
%gra: 1|0|ROOT 2|3|DET 3|1|OBJ 4|1|PUNCT
*INV: and when you're finished I'll take the book away . ▶
%mor: coord|and conj|when pro|you~cop|be&PRES adj|finish-PASTP
pro:sub|I~mod|will v|take det|the n|book adv|away .
%gra: 1|0|INCROOT 2|4|LINK 3|4|SUBJ 4|1|COORD 5|4|PRED 6|8|SUBJ 7|
and ask you to tell me the story of Cinderella in your own words.

▶

can.

▶
%mor:   det:num|nineteen .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh [x 3] scrub &=ges:clean &um &um floor . [+ gram] ▶
%mor:   adj|scrub n|floor .
%gra:   1|2|MOD 2|0|INCROOT 3|2|PUNCT
*PAR:   &uh &uh cat . [+ gram] ▶
%mor:   n|cat .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &um dog . [+ gram] ▶
%mor:   v|dog .
%gra:   1|0|ROOT 2|1|PUNCT
*PAR:   &=ges:two <two cats &=head:no no> [/] &=fingers:one one cats
[* m:a:+s] &uh &=fingers:two two dogs . [+ gram] ▶
%mor:   det:num|one n|cat-PL det:num|two n|dog-PL .
%gra:   1|2|QUANT 2|4|MOD 3|4|QUANT 4|0|INCROOT 5|4|PUNCT
*PAR:   &um &um Cinderella . [+ gram] ▶
%mor:   n:prop|Cinderella .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh beautiful . [+ gram] ▶
%mor:   adj|beautiful .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh dancing . [+ gram] ▶
%mor:   adj|dance-PRESP .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh man . [+ gram] ▶
%mor:   n|man .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh scrub &=ges:clean &=laughs . [+ gram] ▶
%mor:   adj|scrub .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &uh [x 3] (..) &uh slippers . [+ gram] ▶
%mor:   n|slipper-PL .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &um &uh (.) marriage &=laughs . [+ gram] ▶
%mor:   n|marriage .
%gra:   1|0|INCROOT 2|1|PUNCT
@G:   Cinderella_intro
*INV:   okay . ▶
%mor:   co|okay .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &=shrugs sorry . ▶
%mor:   co|sorry .
%gra:   1|0|INCROOT 2|1|PUNCT
*INV:   no that's great . ▶
%mor:   co|no pro:dem|that~cop|be&3S adj|great .
%gra:   1|3|COM 2|3|SUBJ 3|0|ROOT 4|3|PRED 5|3|PUNCT
*INV:   that's fine . ▶
%mor:   pro:dem|that~cop|be&3S adj|fine .
%gra:   1|2|SUBJ 2|0|ROOT 3|2|PRED 4|2|PUNCT
*INV:   I certainly got the story . ▶
"laughs I know.

I heard a lot of the right words.

yeah.

I heard a lot of the right words.

yeah.

I heard a lot of the right words.

right.

Sandwich

we're gonna move on to something a little bit different.

right.

Sandwich

tell me how you would make a peanut butter and jelly sandwich.
n|peanut n|butter coord|and n|jelly n|sandwich .

*PAR: alright . [+ exc] ▶
%mor: co|Alright .
%gra: 1|0|ROOT 2|1|OBJ 3|6|LINK 4|6|SUBJ 5|6|AUX 6|1|COMP 7|9|DET
8|9|MOD
9|6|OBJ 10|9|CONJ 11|12|MOD 12|10|COORD 13|1|PUNCT

I'm gonna [: going to] be asking you to do some talking . ▶
%mor: pro|sub|I-aux|be&1S part|go-PRESP inf|to aux|be part|ask-
PRES

%gra: 1|0|INCROOT 2|1|PUNCT
1|2|MOD 2|0|ROOT 3|2|PUNCT
1|3|LINK 2|3|SUBJ 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT
1|0|ROOT 2|1|OBJ 3|1|JCT 4|1|PUNCT

*INV: okay . ▶
%mor: co|okay .

%gra: 1|0|INCROOT 2|1|PUNCT
1|2|MOD 2|0|ROOT 3|2|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT
1|3|SUBJ 2|1|LP 3|0|ROOT 4|3|OBJ 5|3|PUNCT

%exp: session continues with testing (BNT, VNT, repetition) not
transcribed

@End

Scale10a

@Loc: AphasiaBank/English/Aphasia/SCALE/scale10a.cha

@Begin
@Languages: eng
@Participants: PAR scale10a Participant, INV Investigator
@ID: eng|Scale|PAR|44;8.|male|Broca|scale10a|Participant||63.5|
@ID: eng|Scale|INV|||scale10a|Investigator||
@Media: scale10a, video
@G: Speech

*INV: I'm gonna [: going to] be asking you to do some talking . ▶

%mor: pro|sub|I-aux|be&1S part|go-PRESP inf|to aux|be part|ask-
PRES

*PAR: oh_boy &=laughs . ▶
14    %mor: co|oh_boy .
15    %gra: 1|0|INCROOT 2|1|PUNCT
16    *INV: how do you think your speech is ? ▶
17    %mor: adv:wh|how mod|do pro|you pro|you v|think pro:poss:det|your
18    n|speech cop|be&3S ?
19    %gra: 1|3|LINK 2|3|AUX 3|5|SUBJ 4|5|SUBJ 5|0|ROOT 6|7|MOD 7|8|SUBJ
8|5|JCT
20    9|5|PUNCT
21    *INV: www . ▶
22    %exp: requests that someone close the door
23    *INV: how do you &th +/? ▶
24    %mor: adv:wh|how mod|do pro|you +/?
25    %gra: 1|3|LINK 2|3|AUX 3|0|INCROOT 4|3|PUNCT
26    *PAR: <+ sometime words yes, no &ges:fair . [+ gram] ▶
27    %mor: adv|sometime n|word-PL co|yes cm|cm co|no .
28    %gra: 1|2|JCT 2|0|INCROOT 3|2|COM 4|3|LP 5|2|COM 6|2|PUNCT
29    *INV: so it's mixed . ▶
30    %mor: co|so pro|it~aux|be&3S part|mix-PASTP .
31    %gra: 1|4|COM 2|4|SUBJ 3|4|AUX 4|0|ROOT 5|4|PUNCT
32    *PAR: &y yes [x 5] . ▶
33    %mor: co|yes .
34    %gra: 1|0|INCROOT 2|1|PUNCT
35    @G: Stroke
36    *INV: do you remember when you had your stroke ? ▶
37    %mor: mod|do pro|you v|remember conj|when pro|you v|have&PAST
38    pro:poss:det|your n|stroke ?
39    %gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|LINK 5|6|SUBJ 6|3|CJCT 7|8|MOD
8|6|OBJ
40    9|3|PUNCT
41    *PAR: no [/] no . ▶
42    %mor: co|no .
43    %gra: 1|0|INCROOT 2|1|PUNCT
44    *INV: what are your first memories after your stroke ? ▶
45    %mor: rel|what cop|be&PRES pro:poss:det|your adj|first n|memory-PL
46    prep|after pro:poss:det|your n|stroke ?
47    %gra: 1|2|LINK 2|0|ROOT 3|5|MOD 4|5|MOD 5|2|PRED 6|5|NJCT 7|8|MOD
8|6|POBJ
48    9|2|PUNCT
49    *PAR: wheelchair [/] wheelchair . ▶
50    %mor: n|+n|wheel+wheel+n|chair .
51    %gra: 1|0|INCROOT 2|1|PUNCT
52    *PAR: homeless [/] homeless . ▶
53    %mor: adj|home&dn-LESS .
54    %gra: 1|0|INCROOT 2|1|PUNCT
55    *INV: you were homeless ? ▶
56    %mor: pro|you cop|be&PAST adj|home&dn-LESS ?
57    %gra: 1|2|SUBJ 2|0|ROOT 3|2|PRED 4|2|PUNCT
58    *PAR: yeah &=head:nod . ▶
59    %mor: co|yeah .
60    %gra: 1|0|INCROOT 2|1|PUNCT
61    *INV: goodness . ▶
%mor:  co|goodness .
%gra:  1|0|INCROOT 2|1|PUNCT
*PAR: &=laughs yeah . ▶
%mor:  co|yeah .
%gra:  1|0|INCROOT 2|1|PUNCT
*PAR: &=grunts homeless <I don't know> [/] I don't know . [+ gram]

%mor:  adj|home&dn-LESS pro:sub|I mod|do-neg|not v|know .
%gra:  1|5|LINK 2|5|SUBJ 3|5|AUX 4|3|NEG 5|0|ROOT 6|5|PUNCT
*INV: tell me about your recovery from your stroke ? ▶
%mor:  v|tell pro:obj|me prep|about pro:poss:det|your n|recovery prep|from
pro:poss:det|your n|stroke ?
%gra:  1|0|ROOT 2|1|OBJ 3|1|JCT 4|5|MOD 5|3|POBJ 6|5|NJCT 7|8|MOD 8|6|POBJ
9|1|PUNCT
*INV: what kinds of things have you done to try to get better since your
stroke ? ▶
%mor:  adv:int|what n|kind-PL prep|of n|thing-PL v|have pro|you
part|do&PASTP prep|to n|try inf|to v|get adv|good&CP prep|
since
pro:poss:det|your n|stroke ?
%gra:  1|2|JCT 2|0|INCROOT 3|2|NJCT 4|5|SUBJ 5|3|POBJ 6|5|OBJ 7|6|
XMOD 8|7|JCT
9|8|POBJ 10|11|INF 11|7|XCOMP 12|11|JCT 13|11|JCT 14|15|MOD 15|13|POBJ
16|2|PUNCT
*PAR: I workin(g) [/] workin(g) long ago speech &=points:mouth . [+ gram]
▶
%mor:  pro:sub|I adj|work-PRESP adj|long adv|ago n|speech .
%gra:  1|5|SUBJ 2|5|MOD 3|5|MOD 4|5|JCT 5|0|INCROOT 6|5|PUNCT
*PAR: &um yeah . ▶
%mor:  co|yeah .
%gra:  1|0|INCROOT 2|1|PUNCT
*INV: how long ago was your stroke ? ▶
%mor:  adv:wh|how adj|long adv|ago cop|be&PAST&13S pro:poss:det|
your
n|stroke ?
%gra:  1|4|LINK 2|4|JCT 3|2|JCT 4|0|ROOT 5|6|MOD 6|4|PRED 7|4|PUNCT
*PAR: &wh I don't know . ▶
%mor:  pro:sub|I mod|do-neg|not v|know .
%gra:  1|4|SUBJ 2|4|AUX 3|2|NEG 4|0|ROOT 5|4|PUNCT
*INV: months ? ▶
%mor:  n|month-PL ?
%gra:  1|0|INCROOT 2|1|PUNCT
*INV: years ? ▶
%mor: n\textunderscore year\text{-PL} ?
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: yeah long &dum \&f &fum +... ▶
%mor: co\textunderscore yeah adv|long +...
%gra: 1|2|COM 2|0|INCROOT 3|2|PUNCT
*PAR: years and years and &uh \&=f\text{-finger:draw} +... ▶
%mor: n\textunderscore year\text{-PL} coord\text{|and n\textunderscore year\text{-PL} coord\text{|and} +...
%gra: 1|0|INCROOT 2|1|CONJ 3|2|COORD 4|3|CONJ 5|1|PUNCT
*INV: many years ? ►
%mor: qn\textunderscore many n\textunderscore year\text{-PL} ?
%gra: 1|2|QUANT 2|0|INCROOT 3|2|PUNCT
*PAR: +< <yeah yes> [/] yeah, yes \&=head: nod . ▶
%mor: co\textunderscore yeah cm\text{|cm co\text{|yes}.
%gra: 1|3|COM 2|1|LP 3|0|INCROOT 4|3|PUNCT
*INV: okay, alright . ►
%mor: co\textunderscore okay cm\text{|cm adj|alright}.
%gra: 1|3|COM 2|1|LP 3|0|ROOT 4|3|PUNCT
@G: Important\_Event
*INV: I\text{'}m gonna [: going to] ask you to do a few more things where you
need to talk . ►
%mor: pro\text{-sub|I\text{-aux|be\&1S part|go-PRESP inf|to v|ask pro|you inf|to v|do
det|a qn\text{|few qn\text{|more n\text{-thing\text{-PL} rel|where pro\text{|you v|need\prep\text{|to
n\text{-talk}.
%gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|5|INF 5|3|XCOMP 6|5|OBJ 7|8|INF
8|5|XCOMP
9|10|DET 10|12|QUANT 11|12|QUANT 12|8|OBJ 13|15|LINK 14|15|SUBJ
15|12|CMOD 16|15|JCT 17|16|POBJ 18|3|PUNCT
*PAR: oh okay . ►
%mor: co\textunderscore oh co\text{|okay}.
%gra: 1|2|COM 2|0|INCROOT 3|2|PUNCT
*INV: please talk as much as you can about each one because we
wanna
[\text{: want to]} know about your language . ►
%mor: co\text{-please v|talk prep|as qn\text{|much prep|as pro\text{|you mod|can\prep\text{|about
qn\text{|each pro\text{-indef|one conj|because pro\text{-sub\text{|we v\text{|want inf\text{|to
v\text{|know
%gra: 1|2|COM 2|0|POBJ 5|2|JCT 6|7|SUBJ 7|5|POBJ
8|2|JCT
9|10|QUANT 10|8|POBJ 11|13|LINK 12|13|SUBJ 13|2|CJCT 14|15|INF
15|13|XCOMP
16|15|JCT 17|18|MOD 18|16|POBJ 19|2|PUNCT
*PAR: okay . ►
%mor: co\text{-okay}.
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: alright ? ►
Alright?

%mor:   co|alright ?
%gra:   1|0|INCROOT 2|1|PUNCT
*INV:   thank you . ▶
%mor:   v|thank pro|you .
%gra:   1|0|ROOT 2|1|OBJ 3|1|PUNCT
*INV:   &=coughs thinking back, can you tell me a story about something
that was important to you that happened to you in your life ? ▶
%mor:   part|think-PREP adv|back cm|cm mod|can pro|you v|tell
pro:obj|me
det|a n|story prep|about pro:indef|something rel|that
cop|be&PAST&t13S adj|important prep|to pro|you rel|that v|
happen-PAST
prepp|to pro|you prep|in pro:poss:det|your n|life ?
%gra:   1|6|SUBJ 2|1|JCT 3|1|LP 4|6|AUX 5|6|SUBJ 6|0|ROOT 7|6|OBJ 8|9|DET
JCT 22|23|MOD
*PAR:   mom . ▶
%mor:   n|mom .
%gra:   1|0|INCROOT 2|1|PUNCT
*INV:   tell me about mom . ▶
%mor:   v|tell pro:obj|me prep|about n|mom .
%gra:   1|0|ROOT 2|1|OBJ 3|1|JCT 4|3|POBJ 5|1|PUNCT
*PAR:   &um &uh dead . ▶
%mor:   adj|dead .
%gra:   1|0|INCROOT 2|1|PUNCT
*INV:   oh . ▶
%mor:   co|oh .
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &um long ago . ▶
%mor:   adj|long adv|ago .
%gra:   1|0|INCROOT 2|1|JCT 3|1|PUNCT
*PAR:   long time ago . ▶
%mor:   adj|long n|time adv|ago .
%gra:   1|2|MOD 2|0|INCROOT 3|2|NJCT 4|2|PUNCT
*PAR:   &uh nineteen &=finger:draws +... ▶
%mor:   det:num|nineteen +...
%gra:   1|0|INCROOT 2|1|PUNCT
*PAR:   &um paper ? ▶
%mor:   n|paper ?
%gra:   1|0|INCROOT 2|1|PUNCT
*INV:   I wanna [: want to] ask you to try to do without paper +/.
%mor:   pro:sub|I v|want inf|to v|ask pro|you inf|to v|try inf|to v|do
prepp|without n|paper +/.
%gra:   1|2|SUBJ 2|0|ROOT 3|4|INF 4|2|XCOMP 5|4|OBJ 6|7|INF 7|4|
XCOMP 8|9|INF
188  9|7|XCOMP 10|9|JCT 11|10|POBJ 12|2|PUNCT
189  *PAR:  +< &ges:nevermind &uh yeah .  ▶
190  %mor:  col|yeah .
191  %gra:  1|0|INCROOT 2|1|PUNCT
192  *PAR:  okay .  ▶
193  %mor:  co|okay .
194  %gra:  1|0|INCROOT 2|1|PUNCT
195  *INV:  +< and later on I'll let you have it if +//.  ▶
196  %mor:  coord|and adv|later prep|on pro:sub|I~mod|will v|let&ZERO pro|you
197  v|have pro|it conj|if +//.
198  %gra:  1|8|LINK 2|8|JCT 3|2|JCT 4|6|SUBJ 5|6|AUX 6|3|POBJ 7|8|SUBJ
8|0|ROOT
199  9|8|OBJ 10|8|INCROOT 11|10|PUNCT
200  *INV:  but we just wanna [: want to] see how you do without paper .
201  %mor:  conj|but pro:sub|we adv:int|just v|want inf|to v|see adv:wh|how
202  pro|you v|do prep|without n|paper .
203  %gra:  1|4|LINK 2|4|SUBJ 3|4|JCT 4|0|ROOT 5|6|INF 6|4|XCOMP 7|9|
LINK 8|9|SUBJ
204  9|6|COMP 10|9|JCT 11|10|POBJ 12|4|PUNCT
205  *PAR:  yeah .  ▶
206  %mor:  col|yeah .
207  %gra:  1|0|INCROOT 2|1|PUNCT
208  *INV:  +< if you can .  ▶
209  %mor:  conj|if pro|you mod|can .
210  %gra:  1|3|LINK 2|3|SUBJ 3|0|ROOT 4|3|PUNCT
211  *PAR:  +< &um nineteen eighty &=finger:draw &=grunt &=laughs +...  ▶
212  %mor:  det:num|nineteen det:num|eighty +...
213  %gra:  1|2|QUANT 2|0|INCROOT 3|2|PUNCT
214  *INV:  three ?  ▶
215  %mor:  det:num|three ?
216  %gra:  1|0|INCROOT 2|1|PUNCT
217  *PAR:  yes, yeah &=head:nod .  ▶
218  %mor:  col|yes cm|cm col|yeah .
219  %gra:  1|3|COM 2|1|LP 3|0|INCROOT 4|3|PUNCT
220  *PAR:  a [/] &s <a stroke &um no> /// a heart attack .  ▶
221  %mor:  det|a n|heart n|attack .
222  %gra:  1|3|DET 2|3|MOD 3|0|INCROOT 4|3|PUNCT
223  *INV:  oh .  ▶
224  %mor:  col|oh .
225  %gra:  1|0|INCROOT 2|1|PUNCT
226  *PAR:  +< dead .  ▶
227  %mor:  adj|dead .
228  %gra:  1|0|INCROOT 2|1|PUNCT
229  *PAR:  &uh Georgia .  ▶
230  %mor:  n:prop|Georgia .
231  %gra:  1|0|INCROOT 2|1|PUNCT
232  *INV:  how old were you ?  ▶
Window

now I'm gonna [: going to] show you these pictures .

they tell a story .

look at them tell me the story you see with a beginning, a middle, and an end .

and a n

v|take det|a n|look prep|at qn|all prep|of pro:obj|them coord|and

conj|when pro|you~aux|have part|have&PASTP det|a n|chance

v|look prep|at pro:obj|them v|tell pro:obj|me det|the n|

story pro|you v|see prep|with det|a n|beginning cm|cm det|a n|
middle cm|cm

coord|and det|a n|end .

8|5|CONJ

9|12|LINK 10|12|SUBJ 11|12|AUX 12|8|COORD 13|14|DET 14|12|

OBJ 15|16|INF

16|14|XMOD 17|16|JCT 18|17|POBJ 19|16|XJCT 20|19|OBJ 21|22|
and you can look at the pictures as you tell the story. ▶

and pro|you mod|can v|look prep|at det|the n|picture-

PL
conj|as pro|you v|tell det|the n|story .

8|10|LINK
conj|as pro|you v|tell det|the n|story .

*PAR: &points:picture_1 &baseb &uh &uh soccer up &=ges:up kick
down .

[@G: Umbrella]

*INV: here are some more pictures that tell a story . ▶

v|tell
det|a n|story .

CMOD 8|9|DET

*INV: take a look at them and when you've had a chance to look at

*INV: take det|a n|look prep|at pro:obj|them coord|and conj|when

end . ▶
Look, you see the beginning, middle, and end.

And you can follow along with the pictures as you tell the story.

And you can follow along with the pictures as you tell the story.

A school.

Back again.

Oops.

Hard.

Wet.

Umbrella.
*PAR: &points:cat a cat &um a tree . [+ gram] ▶

%mor: det|a n|cat det|a n|tree .
%gra: 1|2|DET 2|0|INCROOT 3|4|DET 4|2|OBJ 5|2|PUNCT
*PAR: &points:dad &uh &ges:move &uh get it man . [+ gram] ▶
%mor: aux|get pro|i it n|man .
%gra: 1|0|INCROOT 2|3|MOD 3|1|PRED 4|1|PUNCT
*PAR: &points:dog &um &imit:bark no /// bitin(g) [: barking] [* s:r] .

 [+ gram] ▶
%mor: adj|bark-PRESP .
%gra: 1|0|INCROOT 2|1|PUNCT

 [+ gram] ▶
%mor: adj|bark-PRESP n|man .
%gra: 1|2|MOD 2|0|INCROOT 3|2|PUNCT
*PAR: &points:firemen &uh yeah and &uh fire truck cat

s=points:cat .

 [+ gram] ▶
%mor: co|yeah coord|and n|fire n|truck n|cat .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: yes . [+ exc] ▶
%mor: co|yes .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: okay . ▶
%mor: co|okay .
%gra: 1|0|INCROOT 2|1|PUNCT
@G: Flood
*INV: now take a look at this picture . ▶
%mor: adv|now v|take det|a n|look prep|at det|this n|picture .
%gra: 1|2|JCT 2|0|ROOT 3|4|DET 4|2|OBJ 5|4|NJCT 6|7|DET 7|5|POBJ
8|2|PUNCT
*INV: and tell me what you see happening here with a beginning, a
middle, and an end . ▶
%mor: coord|and v|tell pro:obj|me pro:wh|what pro|you v|see part|happen-PRESP adv|here prep|with det|a n|beginning cm|cm
det|a
n|middle cm|cm coord|and det|a n|end .
%gra: 1|2|LINK 2|0|ROOT 3|2|OBJ 4|6|LINK 5|6|SUBJ 6|2|COMP 7|6|OBJ
8|7|JCT
9|7|JCT 10|11|DET 11|9|POBJ 12|11|LP 13|14|DET 14|11|CMOD
15|14|LP
16|14|CONJ 17|18|DET 18|16|COORD 19|2|PUNCT
*PAR: &points:picture flood /// flood . ▶
%mor: n|flood .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: &points:picture &uh flood girl . [+ gram] ▶
%mor: n|flood n|girl .
%gra: 1|2|MOD 2|0|INCROOT 3|2|PUNCT
*PAR: yes ? [+ exc] ▶
%mor: co|yes ?
I'm gonna ask you to tell a story.

Okay.

Okay.

&=laughs &uh &uh hard.

Okay.

&=clears:throat do you know the story of Cinderella?

Some yeah.

Okay.

www.

Now tell me as much as you can of the story of Cinderella.

And you can use anything that you know about the story besides what you just saw here.
If you know anything about Cinderella you can tell me that too.

Okay.

Four fingers: three girls.

Hard...

Just do your best.

Yeah okaydokie.

Walking around.

Big...

Words mixed up.

Yeah.

Try to just tell me the most general things about it.
you don't have to remember every detail.

pro you mod do-neg not v have inf to v remember qn every n
detail.

%mor: 1|4 SUBJ 2|4 AUX 3|2 NEG 4|0 ROOT 5|6 INF 6|4 XCOMP 7|8
QUANT 8|6 OBJ

just the general story.

%mor: 1|0 INCROOT 2|1 PUNCT

%mor: 1|0 INCROOT 2|1 PUNCT

%mor: det a n girl det num one det num two det num three co yes.

%mor: 1|2 DET 2|5 SUBJ 3|4 QUANT 4|5 QUANT 5|0 ROOT 6|5 COM 7|5
PUNCT

Cinderella_intro

%mor: 1|0 INCROOT 2|1 PUNCT

%mor: 1|0 INCROOT 2|1 PUNCT

%mor: 1|2 DET 2|0 SUBJ 3|4 JCT 5|6 DET 6|4 COM 7|5
PUNCT

did Cinderella go to the ball?

%mor: 1|3 LINK 2|3 SUBJ 3|0 ROOT 4|3 JCT 5|6 DET 6|4 POBJ 7|3
PUNCT

and then what happened?

%mor: coord and adv:tem then rel what v happen-PAST?
&uh clock .”

&uh go away &uh yes .”

&uh back again .”

&uh slipper &uh looking around .”
could just anyone wear that slipper?

+< ah.

+< ah.

+< who could> who was the only one who could wear that slipper?

mhm.

mhm.

yeah.

yeah.

okay.

alright.

so she could wear the slipper.

one slipper and &s yeah. [+ gram]
and what happened when she put on the slipper?

and you cook all the time.

how to make peanut butter and jelly sandwich.

this is very simple.
and you tell me step by step (.) everything you need and everything you do .

*INV:  and you tell me step by step (.) everything you need and everything you do .

%mor:  coord|and pro|you v|tell pro:obj|me v|step prep|by n|step pro:indef|everything pro|you v|need coord|and pro:indef|everything pro|you v|do .

%gra:  1|3|LINK 2|3|SUBJ 3|0|ROOT 4|3|OBJ 5|3|COMP 6|5|JCT 7|8|MOD 8|6|POBJ

*PAR:  aw . [+ exc] ▶

%mor:  co|aw .

%gra:  1|0|INCROOT 2|1|PUNCT

*INV:  go ahead . ▶

%mor:  v|go adv|ahead .

%gra:  1|0|ROOT 2|1|JCT 3|1|PUNCT

*PAR:  me &=points:self ? [+ exc] ▶

%mor:  pro:obj|me ?

%gra:  1|0|INCROOT 2|1|PUNCT

*INV:  mhm . ▶

%mor:  co|yes .

%gra:  1|0|INCROOT 2|1|PUNCT

*PAR:  &uh bread . [+ exc] ▶

%mor:  n|bread .

%gra:  1|0|INCROOT 2|1|PUNCT

*INV:  mhm . ▶

%mor:  co|yes .

%gra:  1|0|INCROOT 2|1|PUNCT


%mor:  n|paper n|towel .

%gra:  1|2|MOD 2|0|INCROOT 3|2|PUNCT

*INV:  mhm . ▶

%mor:  co|yes .

%gra:  1|0|INCROOT 2|1|PUNCT

*PAR:  <+ boom@o &=ges:down . [+ exc] ▶

%mor:  on|boom .

%gra:  1|0|INCROOT 2|1|PUNCT

*PAR:  &uh bread . [+ exc] ▶

%mor:  n|bread .

%gra:  1|0|INCROOT 2|1|PUNCT

*PAR:  oh ! [+ exc] ▶

%mor:  co|oh !

%gra:  1|0|INCROOT 2|1|PUNCT

*PAR:  &um [x 4] &=ges:speak . [+ exc] ▶

*INV:  mhm . ▶

%mor:  co|yes .
do you wanna [: want to] write it? ▶
mod|do pro|you v|want inf|to v|write pro|it ?
*PAR: you (ha)ve +..? [+ exc] ▶
par: gets:paper &um so it +//. [+ exc] ▶
&=gets:jelly [x 4] . [+ exc] ▶
coord|and n|bread n|peanut n|butter . [+ gram] ▶
yeah =&head:yes . ▶
okay . ▶
co|okay . ▶
1|0|INCROOT 2|1|OBJ 3|1|PUNCT
*PAR: &uh and bread =&ges:spread &um &uh peanut butter . [+ gram] ▶
now tell me that in &s sentences . ▶
like you're telling me &uh when we talk on the phone . ▶
co|like pro|you aux|be&PRES part|tell-PRESP pro|me conj|
when
pro|sub|we v|talk prep|on det|the n|phone .
tell me in sentences how you make a peanut butter and jelly
sandwich.

%mor: v|tell pro:obj|me prep|in n|sentence-PL adv:wh|how pro|you
v|make
det|a n|peanut n|butter coord|and n|jelly n|sandwich.

%gra: 1|0|ROOT 2|1|OBJ 3|1|JCT 4|3|POBJ 5|7|LINK 6|7|SUBJ 7|1|COMP
8|10|DET
9|10|MOD 10|7|OBJ 11|10|COORD 12|13|MOD 13|11|COORD 14|1|
PUNCT

*PAR: &uh bread & ges:down & shrugs [>] . [+ gram] ▶

*mor: co|uh huh.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: &uh peanut butter & points: paper . [+ gram] ▶
%mor: co|uh huh.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: no . [+ exc] ▶
%mor: no.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: what do you do ? ▶
%mor: what do you do ?
%gra: 1|2|JCT 2|4|OBJ 3|4|SUBJ 4|0|ROOT 5|4|PUNCT
*PAR: & um & ges:spread & um bread & um & um +... ▶
%mor: um peanut butter.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: uh the & um [ x 3] & sler & uh [ x 3] bread & ges:down & um
butter . [+ p:n-ret] butter> [ //] benrt@u [: peanut] [* n:k]
%mor: det|the n|bread n|peanut n|butter .
%gra: 1|4|DET 2|4|MOD 3|4|MOD 4|0|INCROOT 5|4|PUNCT
*INV: mhm . ▶
%mor: co|yes.
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: & um certain much & ges:down push eat & ges:eat . [+ gram] ▶
%mor: adj|certain qn|much n|push v|eat .
%gra: 1|4|LINK 2|3|QUANT 3|4|SUBJ 4|0|ROOT 5|4|PUNCT
*INV: okay . ▶
%mor: co|okay.
%gra: 1|0|INCROOT 2|1|PUNCT

Scale18a

@Loc: AphasiaBank/English/Aphasia/SCALE/scale18a.cha

@Begin
@Languages: eng
@Participants: PAR scale18a Participant, INV Investigator
@ID: eng|Scale|PAR|49;7. |female|Broca|scale18a|Participant||60.9|
@ID: eng|Scale|INV||scale18a|Investigator|||
@Media: scale18a, video
@G: Speech

*INV: I'm gonna [: going to] be asking you to do some talking . ►
%mor: pro:sub|I~aux|be&1S part|go-PRESP inf|to aux|be part|ask-PRESP
%gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|6|INF 5|6|AUX 6|3|XCOMP 7|6|OBJ
8|9|INF

*INV: how do you think your talking is these days ? ►
%mor: adv:wh|how mod|do pro|you v|think pro:poss:det|your
n:gerund|talk-PRESP cop|be&3S det|these n|day-PL ?
%gra: 1|4|LINK 2|4|AUX 3|4|SUBJ 4|0|ROOT 5|6|MOD 6|4|OBJ 7|6|OBJ
8|9|DET

*PAR: hm ( .) I can't talk . ►
%mor: co|hm pro:sub|I mod|can~neg|not v|talk .
%gra: 1|5|COM 2|5|SUBJ 3|5|AUX 4|3|NEG 5|0|ROOT 6|5|PUNCT

@G: Stroke

*INV: do you remember when you had your stroke ? ►
%mor: mod|do pro|you v|remember conj|when pro|you v|have&PAST
pro:poss:det|your n|stroke ?
%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|LINK 5|6|SUBJ 6|3|CJCT 7|8|MOD
8|6|OBJ

*INV: &um can you tell me at all without writing ? ►
%mor: mod|can pro|you v|tell pro:obj|me prep|at qn|all prep|without
%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|3|OBJ 5|3|JCT 6|5|POBJ 7|6|NJCT
8|7|POBJ

@End
I'm not really looking +/. ▶
pro:sub|I-cop|be|ad|neg|adv|real|adj-LY part|look-PRESP +/.

*fifteen years ago* . [+ gram] ▶
det:num|fifteen n|year-PL adv|ago .
*QUANT 2|0|INCROOT 3|2|NJCT 4|2|PUNCT
*fifteen years ago* . ▶
det:num|fifteen n|year-PL adv|ago .
*QUANT 2|0|INCROOT 3|2|NJCT 4|2|PUNCT

okay, good . ▶
co|okay cm|cm adj|good .
*COM 2|1|LP 3|0|ROOT 4|3|PUNCT

tell me what you remember about that time . ▶
v|tell pro:obj|me pro:wh|what pro|you v|remember prep|about
det|that n|time .
*INCROOT 2|1|NJCT 4|5|DET 5|3|LINK 7|8|DET 8|6|POBJ

were you at home ? ▶
cop|be&PAST pro|you adv|at adv|home ?
*ROOT 2|1|OBJ 3|2|JCT 4|2|JCT 5|1|PUNCT
*yah &=head:nod . ▶
col|yeh .
*INCROOT 2|1|PUNCT

tell me about your recovery . ▶
v|tell pro:obj|me prep|about pro|poss|det|your n|recovery .
*INCROOT 2|1|OBJ 3|1|JCT 4|5|MOD 5|3|COORD 6|7|DET 7|5|OBJ 8|7|CONJ

what kinds of things have you done to try to get better
since your
stroke ? ▶
adv:int|what n|kind-PL prep|of n|thing-PL v|have pro|you

part|do&PASTP prep|to n|try inf|to v|get adv|good&CP prep|
since
pro|poss|det|your n|stroke ?
*XMOD 8|7|JCT

9|8|POBJ 10|11|INF 11|7|XCOMP 12|11|JCT 13|11|JCT 14|15|MOD
15|13|POBJ

16|2|PUNCT
*um walk +/. ▶
n|walk +/.
*um walk +/. ▶
*um walk +/.
I'm gonna [: going to] ask you to do a few more things where you need to talk .

Yeah &head: nod .
*INV: talk as much as you can about each one because we really would like to know about your language.

*INV: thinking back, can you tell me a story about something that happened to you in your life that was important to you?

*INV: it can be recently or when you were a child.

*INV: it can be recently or when you were a child.
*PAR: the army. [+ gram] ▶
%mor: det[the n:army] .
%gra: 1|2|DET 2|0|INCROOT 3|2|PUNCT
*PAR: I was stationed in Alabama. ▶
%mor: pro:sub[I aux[be&PAST]13S part|station-PAST|prep|in n:prop|Alabama]
*PAR: and the drill sergeant no [//] no &=laughs &=head:shake. [+ gram] ▶
%mor: coord[and det[the n:drill n:sergeant co|no]] .
%gra: 1|0|INCROOT 2|4|DET 3|4|MOD 4|1|COORD 5|4|COM 6|1|PUNCT
*PAR: parachute jump up. [+ gram] ▶
%mor: n:parachute n:jump adv|up] .
%gra: 1|2|MOD 2|0|INCROOT 3|2|JCT 4|2|PUNCT
*PAR: paratrooper. [+ gram] ▶
%mor: n:paratrooper] .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: you were a paratrooper? ▶
%mor: pro|you cop|be&PAST det[a n:paratrooper] ?
%gra: 1|2|SUBJ 2|0|ROOT 3|4|DET 4|2|PRED 5|2|PUNCT
*PAR: yeah. ▶
%mor: col|yeah] .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: wow. ▶
%mor: col|wow] .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: and &um Kansas [//] the &s station in Kansas. [+ gram] ▶
%mor: coord[and det[the n:station prep|in n:prop|Kansas] .
%gra: 1|0|INCROOT 2|3|DET 3|1|COORD 4|3|NJCT 5|4|POBJ 6|1|PUNCT
*INV: &< do you remember the first time you jumped? ▶
%mor: mod[do pro|you v|remember det[the adj|first n:time pro|you v|jump-PAST] ?
%gra: 1|3|AUX 2|3|SUBJ 3|0|ROOT 4|6|DET 5|6|MOD 6|3|OBJ 7|8|SUBJ
8|6|XMOD

9|3|PUNCT
*PAR: wow. ▶
%mor: col|wow] .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: &um South_Carolina. [+ gram] ▶
%mor: n:prop|South_Carolina] .
%gra: 1|0|INCROOT 2|1|PUNCT
*INV: South_Carolina? ▶
%mor: n:prop|South_Carolina] .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: yeah. ▶
%mor: col|yeah] .
%gra: 1|0|INCROOT 2|1|PUNCT
*PAR: &um I [//] I forget &=head:shake. ▶
%mor: pro:sub[I v|forget] .
%gra: 1|2|SUBJ 2|0|ROOT 3|2|PUNCT
were you frightened?

Yeah [/] &=head:nod yeah.

so what did you do?

one thousand two thousand and

you're very brave.

okay, now I'm gonna [: going to] show you some pictures.

take a look at these pictures.

tell a story.

here with a beginning, a middle, and an end.

inf to v see cm cm v tell pro:obj me det the n story pro you
v see adv here prep with det a n beginning cm cm det a n middle
coord and det a n end

OBJ 8|9 INF

9|7|XMOD 10|9|LP 11|9|COMP 12|11|OBJ 13|14|DET 14|11|OBJ 15|16|SUBJ
16|11|COMP 17|16|JCT 18|16|JCT 19|20|DET 20|18|POBJ 21|20|LP
22|23|DET
and you can follow along with the pictures. ►

*INV: okay. [+ exc] ►

%PAR: the pictures-PL.

%mor: can v|follow adv|along prep|with det|

%gra: the n|picture-PL .

%PAR: a boy is throwing [: kicking] [* s:r] the ball. ►

%mor: det|a n|boy aux|be&3S part|kick-PRESP det|the n|ball .

%gra: he [/] he [//] &um the window he crash . [+ gram] ►

%PAR: &um he gave it to the ball. [+ gram] ►

%mor: pro:sub|he v|give&PAST pro|it prep|to det|the n|ball .

%gra: he had the ball. ►

%mor: pro:sub|he v|have&PAST det|the n|ball .

%gra: the man had the ball and he drop [* s:uk] it. [+ jar] ►

%PAR: he drop pro|it .

%mor: det|the n|man v|have&PAST det|the n|ball coord|and pro:sub|

%gra: 1|2|DET 2|3|SUBJ 3|4|ROOT 4|5|DET 5|3|OBJ 6|8|LINK 7|8|SUBJ

9|8|OBJ 10|3|PUNCT

*PAR: and the window was angry [* s:uk] . ►

%mor: det|a n|story .

%gra: the n|window cop|be&PRES qn|some qn|more n|picture-PL rel|that

%PAR: take a look at all of them and when you're ready, tell me the story.

%mor: v|take det|a n|look prep|at qn|all prep|of pro:obj|them

%gra: when pro|you~cop|be&PRES adj|ready cm|cm v|tell
and you can follow along with the pictures as you tell the story.

one day the boy &h he is &=head:shake +... ▶
the boy and the girl [: mother] [* s:r] . [+ gram] ▶
he need [* m:a:0es] the umbrella to (g)o to school . [+ gram] ▶
pro:sub|he v|need det|the n|umbrella inf|to v|go prep|to n|school .

all_of_a_sudden the boy is raining cats and dogs . [+ gram] ▶

adv|all_of_a_sudden det|the n|boy aux|be&3S part|rain-PRESP n|cat-PL coord|and n|dog-PL .
317  9|5|PUNCT
318  *PAR: he is screaming +"./. ▶
319  %mor: pro:sub|he aux|be&3S part|scream-PRESP +"./.
320  %gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|3|PUNCT
do&PAST
321  *PAR: "$<I have> [[/]] it's raining and where did it go ? ▶
322  %mor: pro|it~aux|be&3S part|rain-PRESP coord|and adv:wh|where mod|
323  %gra: 1|3|SUBJ 2|3|AUX 3|0|ROOT 4|3|CONJ 5|8|LINK 6|8|AUX 7|8|SUBJ
324  8|4|COORD
325  9|3|PUNCT
326  *PAR: the əmblelə@u [: umbrella] [* p:n] wasn't there . ▶
327  %mor: det|the n|umbrella cop|be&PAST&13S~neg|not adv|there .
328  %gra: 1|2|DET 2|3|SUBJ 3|0|ROOT 4|3|NEG 5|3|JCT 6|3|PUNCT
329  *PAR: the mother he [: she] [* s:r-rep] [* p:w-rep] [/] he [: she]
331  [+ gram] ▶
332  %mor: det|the n|mother pro:sub|she part|rain-PRESP .
333  %gra: 1|2|DET 2|0|INCROOT 3|4|SUBJ 4|2|XMOD 5|2|PUNCT
334  *PAR: he +"/. ▶
335  %mor: pro:sub|he +"./.
336  %gra: 1|0|INCROOT 2|1|PUNCT
337  *PAR: +" where did it go ? ▶
338  %mor: adv:wh|where mod|do&PAST pro|it v|go ?
339  %gra: 1|4|LINK 2|4|AUX 3|4|SUBJ 4|0|ROOT 5|4|PUNCT
340  *PAR: she's angry . ▶
341  %mor: pro:sub|she-cop|be&3S adj|angry .
342  %gra: 1|2|SUBJ 2|0|ROOT 3|2|PRED 4|2|PUNCT
343  *PAR: +" here it go [: is] [* s:per] . ▶
344  %mor: adv|here pro|it cop|be&3S .
345  %gra: 1|3|JCT 2|3|SUBJ 3|0|ROOT 4|3|PUNCT
346  *PAR: she is the rain . [+ gram] ▶
347  %mor: pro:sub|she cop|be&3S det|the n|rain .
348  %gra: 1|2|SUBJ 2|0|ROOT 3|4|DET 4|2|PRED 5|2|PUNCT
349  *PAR: he found them [: it] [* s:r] . ▶
350  %mor: pro:sub|he v|find&PAST pro|it .
351  %gra: 1|2|SUBJ 2|0|ROOT 3|2|OBJ 4|2|PUNCT
352  *INV: okay . ▶
353  %mor: co|okay .
354  %gra: 1|0|INCROOT 2|1|PUNCT
355  @G: Cat
356  *INV: here's another picture . ▶
357  %mor: pro:exist|here-cop|be&3S qn|another n|picture .
358  %gra: 1|2|SUBJ 2|0|ROOT 3|4|QUANT 4|2|PRED 5|2|PUNCT
359  *INV: look at everything that's happening in the picture and then
360  tell me a story about what you see with a beginning, a middle, and
361  an end . ▶
362  %mor: v|look prep|at pro:indef|everything rel|that~aux|be&3S
363  part|happen-PRESP prep|in det|the n|picture coord|and
Then you will see a story about what you see with a beginning, middle, and end.

One day he went up climbing the tree.

He took the cat.

He dropped it.

He was scared.

The fireman is climbing the stairs:

He's scared but he is getting the stairs:

Okay.
Flood

take a look at this picture.

and tell me a story about what you see happening with a beginning, a middle, and an end.

one day he [: she] [* s:r-rep] [* p:w-rep] [/] he [: she] [* s:r]

[* p:w] is crying +"/.

det:num|one n|day pro:sub|she aux|be&PAST&13S part|cry-PREP +"/.

*PAR: getting to the drowning .

*par:

he was &uh sleeping [* s:uk] .

but he was swimming but he's get [/] <getting ready to go the>

drown-PREP

*par:


*inv: okay .

*PAR: but he was &uh sleeping [* s:uk] .

*par:


*inv: I'm gonna [: going to] ask you to tell a story .

*par:


do you know the story of Cinderella?

Yeah.

do you remember much about it?

Yeah.

now tell me as much as you can of the story of Cinderella.

and you can use any details you know about the story as well as what you just looked at.

one day he [: she] [* s:r] [* p:w] was <washing and the> washing and mopping the floor.

washing and mopping the floor.
"I wanna [want to] go to &s see Cinderella [* s:uk].

but +"/

but no, she didn't .

&um he's [she's] [* s:r] crying .

and all of a sudden +"/. [+ gram]

what's wrong ?

so the wand . [+ gram]

he [she] [* s:r] [* p:w] is beautiful .

&h he [she] [* s:r] [* p:w] went to see Cinderella [* s:uk].

so he [she] [* s:r] [* p:w] said +"/.  

so he [she] [* s:r] [* p:w] said +"/.  

det: num[twelve n] o'clock . [+ gram]  

det: num[twelve n] o'clock .

he [she][* s:r-rep] [/] he [she] [* s:r-rep] [* p:w-rep] [/*] he
all of his clothes.

and he saw a man that caught my eye.

and we dance and we dance.

twelve o'clock.

Cinderella +"/. because the clock struck twelve.

Cinderella he +[ going to] go because the clock struck twelve.

all of a sudden
the donkey [* s:uk] he was there .

he had the clothes and he [/] he upstairs . [+ gram] ▶

he had the clothes and he [/] he upstairs . [+ gram] ▶

and he is trying to find the slippers . ▶

and he is trying to find the slippers . ▶

<the clothes I mean> [/] the slippers [* m:+s] was [* m:a: +es] too

big . [+ gram] ▶

and he tried and too small . [+ gram] ▶

and he tried and too small . [+ gram] ▶

and slippers he had found the one . [+ gram] ▶

and slippers he had found the one . [+ gram] ▶

and the one and happily after . [+ gram] ▶

and the one and happily after . [+ gram] ▶

adv:tem[after] .

adv:tem[after] .

adv:tem[after] .

adv:tem[after] .

ad|good . ▶

ad|good . ▶

ad|good . ▶

ad|good . ▶

Sandwich
we're gonna [: going to] do something just a little different.

tell me how you would make a peanut butter and jelly sandwich.

the bread is on the peanut butter and jelly. [+ gram]

&um cut it. &laughs +...

okay. &co

session continues with testing (BNT, VNT, repetition) not transcribed

@End