In producing an oral narrative such as a fairy tale, the content can be expressed in numerous forms. The lexical items depicting the agents, the objects, and the activities which make up the story, the syntactic structures, and the type of speech produced can vary. Narratives produced by persons with aphasia (PWA) reveal features that are intact and others that are indicative of impaired language processing. Thus, long-term analysis of narratives produced by PWAs provides a unique opportunity to examine the evolution of the predominant symptoms affecting narrative production. Initially due to the severity of language impairment, symptoms may overlap and mask specific deficits which are initially difficult to separate from one another and/or required features may be omitted and substituted.

The aim of this single case study is to characterize the changes in the use of direct and reported speech in the (re-)telling of the fairy tale 'Cinderella' over time in the context of the overall language recovery process. The main question addressed is to what extent the availability of specific structures influences narrative production: Is there a tendency for direct speech to be correctly, differentially used by TH in his production of the fairy tale 'Cinderella' at various stages of language recovery in contrast to describing the succession of events not using direct speech?

## Methods

## Participant TH

TH suffered a left hemisphere stroke at the age of 40. Prior to his stroke he was a radio announcer. The initial diagnosis of global aphasia evolved into Broca's aphasia with agrammatic sentence production and apraxia of speech. Beginning 14.5 months post onset TH was seen at our unit and testing for this study was carried out at intervals from 36 to 121 months post onset.

## Procedure

Starting 36 months post onset, TH was asked to (re-)tell the fairy tale Cinderella completely from memory without any picture stimuli support in pre- and post-therapy testing. Six productions of the fairy tale are analyzed in this study. The six (re-)tellings were performed at 36, 41, 72, 93, 113 and 121 months post onset. The narratives were audio- and videotaped and transcribed. The narratives were analyzed with reference to whether they were produced as descriptions of the story or as direct speech and whether the direct speech was introduced e.g. 'Cinderella said...' or not.

Comparison is made to the content of the narratives and to the oral production of single sentences.

## Results

A summary of the variables selected for analysis in this study is provided in Table 1.

## Insert Table 1

In the first two narratives produced at 36 and 41 months post onset respectively, all of the sentences produced as a description of the fairy tale were incorrect or incomplete, with the exception of one grammatically produced sentence. They consisted of one or two words or a list of nouns in combination with an adjective or gerund. However, in direct speech, although no introduction was produced, 4 and 3 utterances respectively were grammatically correct. As of 72 months post onset, more grammatically correct utterances were produced as direct speech. For the last two (re-)tellings the proportion of correct to incorrect utterances shows a marked increase: 101 and 117 grammatically correct versus 32 and 26 grammatically incorrect or incomplete utterances respectively. The descriptive sentences show a more even

distribution of correctly versus incorrectly produced sentences: 58 versus 47 and 78 versus 77 sentences. The two middle (re-)tellings show a transition in the direction of more correctly produced sentences and utterances produced as direct speech. It is not only the case that there is an increase in the number of correctly produced sentences, there is also an increase in the number of incorrect or incomplete sentences. This can be explained by the large increase in length of the produced texts across time. An increase in direct speech following an introduction by the speaker is also observed. In the last narrative 58 instances of direct speech were introduced and 23 were produced without an introduction.

In Table 2 the content of the narratives is analyzed according to whether the propositions making up the fairy tale were omitted, implicitly or explicitly produced.

## **Insert Table 2**

Regarding the content of the produced narratives, as of the 72 months post onset the number of explicitly produced propositions is 32 (78%). This increases to 37 (90.2%) for the last narrative.

## Discussion

From the narratives analyzed in this study, a discrepancy between the production of simple active declarative sentences to describe the succession of events versus utterances produced as direct speech is particularly striking at later stages of language recovery. What is the difference between describing a succession of events and using direct speech in reporting?

Lesser and Milroy (1993) have noted a preference for agrammatic Broca's aphasics to use direct speech in place of indirect speech in reporting. This preference is assumed to be due to the difficulties involved in selecting the various tenses in the transition from direct speech to indirect speech. The PWA avoids the complex shifting required by reported speech. Goodglass et al.'s (1972) results from administrations of their Story Completion Test identified two linguistic structures that were consistently produced correctly by their agrammatic speaker RH in mini-texts, namely imperatives consisting of 1) verb and particle, e.g. 'Come in', 'Sit down' and 2) verb plus article or possessive adjective and direct object, e.g. 'Drink your milk', 'Mow the lawn'. Both of these forms are examples of direct speech that require only the root form of the verb. Moreover, the imperative substituted for the required embedded verb complement construction. RH reveals a tendency to produce imperatives for indicatives.

The findings from both studies apply to the data analyzed in this study. TH appears to avoid the shifting of tenses required by reported speech and he also tends to use the imperative structure. In his productions of the narrative across time more verb tenses are used, however they are not used systematically. He jumps from one tense to another in the same narrative: present progressive, present, past, past progressive and future tense.

Comparison of TH's performance on an oral sentence production task to picture stimuli and producing sentences in the context of a narrative also reveals a better performance for producing single sentences in isolation. At 36, 41, 72, 93, 113 and 121 months post onset respectively he attained: 44, 55, 79, 79, 89 and 91% grammatically correct respectively. It must be stressed that the single sentences are always produced in the present progressive.

In the recovery from aphasia, it is not only the case that form and content can show dissociations, differential performance can also be observed for the same structures in different tasks (sentence versus narrative production) and for different ways of expressing content (describing, reporting, indirect speech versus direct speech). Thus, long-term documentation of narratives brings to light aspects of narrative production, that would otherwise remain unnoticed.

# References

Goodglass, H., Gleason, J.B., Bernholtz, N., & Hyde, M.R. (1972. Some Linguistic Structures in the Speech of a Broca's Aphasic. *Cortex*, *8*, 191-212.

Lesser, R. & Milroy, L. (1993) Linguistics and Aphasia. London: Longman.