

# Constraint Induced Aphasia Therapy – Three Single Case Studies

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## Introduction

This therapy trial was inspired by the Specific Interest Group in Aphasia study day given by Professor Pulvermuller in January 2011. Constraint Induced Aphasia Therapy (CIAT) is sometimes referred to as Intensive Language Action Therapy (ILAT) and has an impressive and consistent research record to support its use for people with aphasia (PWA). The evidence base includes both single case and randomised control trial evidence (Pulvermuller, Neining, Elbert, Mohr, Rockstroh, Koebbl & Taub, 2001).

Pulvermuller et al (2001) described CIAT as a game of pairs. The game is normally played by four players: a therapist and three PWA. A pack of 32 picture cards consisting of 16 picture pairs is shuffled and divided equally. Players cannot see the cards held by the other participants. The aim of the game is to match a pair of cards by asking each of the other players in turn, for a card that is the same as one of their own. Pulvermuller et al (2001) specify that all requests and responses should be verbal but suggest that participants may describe the target word or use a gesture to help access the spoken word. An essential part of the game is that each player should see and hear the name of the card in play. Our study was designed to trial CIAT with PWA selected from a general hospital SLT caseload.

## Method

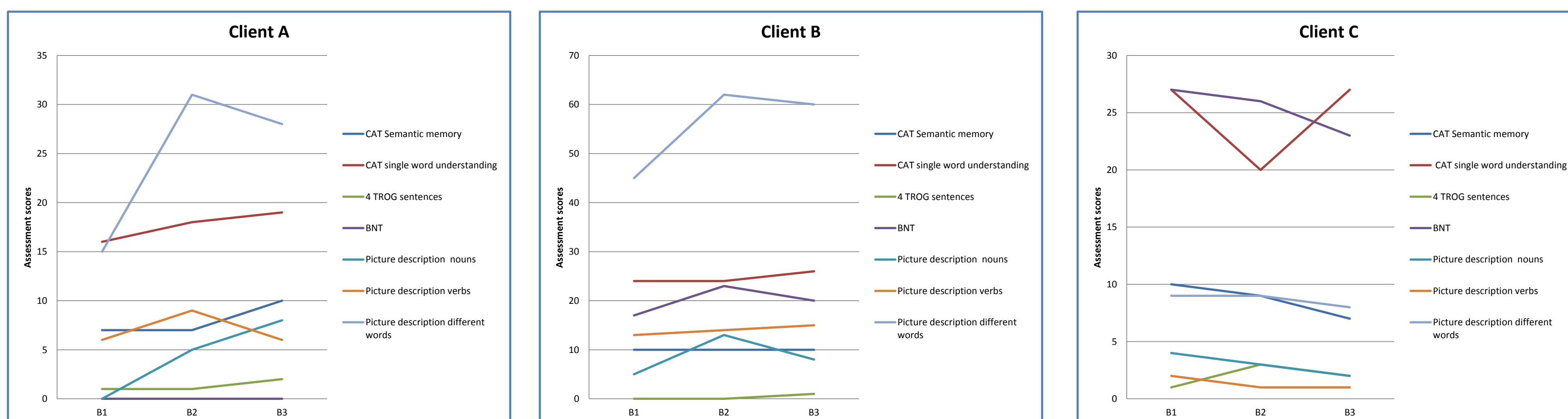
Client	Gender	Age	Stroke	Diagnosis
A	F	51	LMCA infarction - thrombolysed	Fluent jargon aphasia, Boston Severity Rating (BSR) 2
B	M	73	Large LMCA infarction	Fluent aphasia BSR 2
C	F	67	L temporal parietal infarction	Non fluent aphasia and apraxia of speech BSR 1

### BSR Descriptors:

- 1 - All communication is through fragmentary expression, great need for inference, questioning and guessing by the listener. The range of information that can be exchanged is limited, and the listener carries the burden of communication.
- 2 - Conversation about familiar subjects is possible with help from the listener. There are frequent failures to convey the idea, but the patient shares the burden of communication.

All three clients were one to two years post onset of their aphasia and had already been provided with impairment focussed, functional and psychosocial SLT input. Clients attended therapy sessions Monday to Friday, 3 hours a day for two weeks for a total of 10 sessions. Accessible formal assessment measures were used to evaluate the success of therapy in a four step repeated measures research design: Baseline 1, 30 hours CIAT therapy, Baseline 2, Baseline 3.

## Results



For 2/3 clients, assessment results suggested that participation in the CIAT programme resulted in specific, selective, clinically relevant improvement of word and sentence level language skills. There were also positive changes that were not captured by the assessment data: reduced use of written and therapist cues, improved repetition skills, improved self-monitoring and a reduced tendency to produce jargon type utterances. Relatives corroborated therapist perceptions; A’s relatives reported that she showed less frustration and her speech was “loads better”

## Conclusions

In 2006 Beeson & Robey (2006, p162) proposed that rehabilitation outcome research should be conducted in five phases. Our study is one of the first to provide evidence to support the use of intensive CIAT therapy in the community (phase 4 – an effectiveness study). Our therapy trial demonstrated that CIAT therapy can be effective for a range of clients with aphasia derived from a typical busy SLT outpatient clinic caseload. Other studies have assessed the usefulness of the therapeutic effect of CIAT (phase 1), optimised the CIAT procedure (phase 2) and tested its usefulness under ideal conditions (phase 3). The final phase outlined by Beeson & Robey (2006) is the cost-benefit analysis (phase 5) and we would welcome debate within the profession on improving this type of therapy and the role of Speech and Language Therapists in intensive aphasia therapy provision.