TBI Bank

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Relevant Financial Relationships:

- Salaried full professor in Communication Sciences and Disorders at the University of Sydney
- Research funded by the Australian National Health and Medical Research Council
- Recipient of a 6 year NHMRC Senior Research Fellowship
- Speech Pathology Australia research funding
- Technical support from TalkBank team at Carnegie Mellon University

Relevant Non-Financial Relationships:

- Serves on the Editorial Board for Brain Injury, Brain Impairment, Journal of Head Trauma Rehabilitation, International Journal of Speech Language Pathology, Aphasiology
- Serves as reviewer for several peer-reviewed journals



History of TBI Bank

- Expert consensus + Evidence:1st internationally ratified and evidence-based communication protocol for use with TBI population
- Aphasia Bank tasks modified to include questions about recovery and coping after brain injury (rather than stroke)
- Added in extra communication and cognitive/executive functioning tasks for the purposes of a longitudinal communication recovery study
 - 10 minute casual conversation with a significant other
 - La Trobe Communication Questionnaire (Douglas et al 2000)
 - Neuropsychological screening battery



Communication after TBI

- Discourse requires integrated cognitive, linguistic and social skills
- Discourse analysis = Gold standard (Coelho 2007; Togher 2001)
- Challenges:
 - Time consuming
 - Many choices for analysis
- TBI Bank can help:
 - Transcribe faster and more accurately
 - Run multiple analyses with a click



www.talkbank.org



The goal of TalkBank is to foster fundamental research in the study of human and animal communication. It will construct sample databases within each of the subfields studying communication. It will use these databases to advance the development of standards and tools for creating, sharing, searching, and commenting upon primary materials via networked computers.

Data	Resources	Membership
Browsable Database	Second Language Resources	*Usage Ground Rules*
Downloadable Database	CLAN - Manual - Tutorial	Membership Lists
Database Manuals	Other Software	<u>Joining</u>
Contributing New Data	Picture Stimuli	Mailing Lists
<u>IRB</u>		
Focus Areas	Clinical Areas	Information
Focus Areas <u>BilingBank</u> <u>SLABank</u>	Clinical Areas <u>AphasiaBank</u>	Information <u>Digital Video</u>
BilingBank SLABank	<u>AphasiaBank</u>	<u>Digital Video</u>
BilingBank SLABank <u>CABank</u>	AphasiaBank DementiaBank	<u>Digital Video</u> <u>Digital Audio</u>
BilingBank SLABank CABank CHILDES	AphasiaBank DementiaBank TBIBank	<u>Digital Video</u> <u>Digital Audio</u> <u>Research Usage</u>



TBI Bank



This page provides materials for collecting data from TBI subjects for the TBIBank Project.

Database

Browsable Database

Transcript Database

Media Database

Materials

Articles on TBI

Protocol

Protocol List

Protocol Instructions

Full Protocol

Troubleshooting

Protocol Results

Coding Sheet for Investigator
Administration

Coding Sheet for Self Administration

Coding Sheet to Supplement Self Administration

Excel Spreadsheet for Data

Excel Spreadsheet for Data (blank)

Test Results Spreadsheet

Test Results Spreadsheet (blank)

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TBI Bank Protocol

Monologic Discourse Tasks

- I. Free Speech Samples (Brain Injury Story & Important Event)
- >II. Picture Descriptions (Broken Window; Refused Umbrella & Cat Rescue)
- III. Story Narrative (Cinderella)
- >IV. Procedural Discourse (Peanut Butter & Jelly Sandwich or similar)



A. BRAIN INJURY STORY and COPING

1. "I'm going to be asking you to do some talking. How do you think your speech is these days?"

If no response in approximately 10 seconds, prompt:

"How's your talking?"

Listen, encourage full response. If no response, use Troubleshooting questions.

2. Tell me what you remember about when you had your head injury.

If no response in approximately 10 seconds, prompt:

"What other things have people told you about when you had your head injury?"

Listen, encourage full response.

At a natural juncture add:

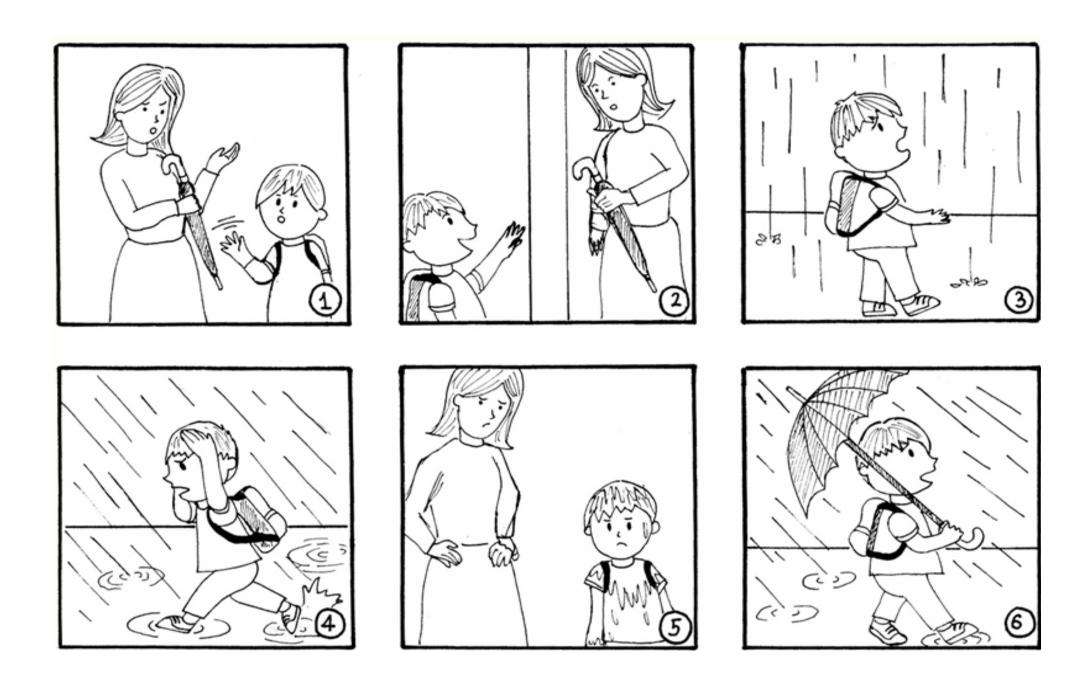


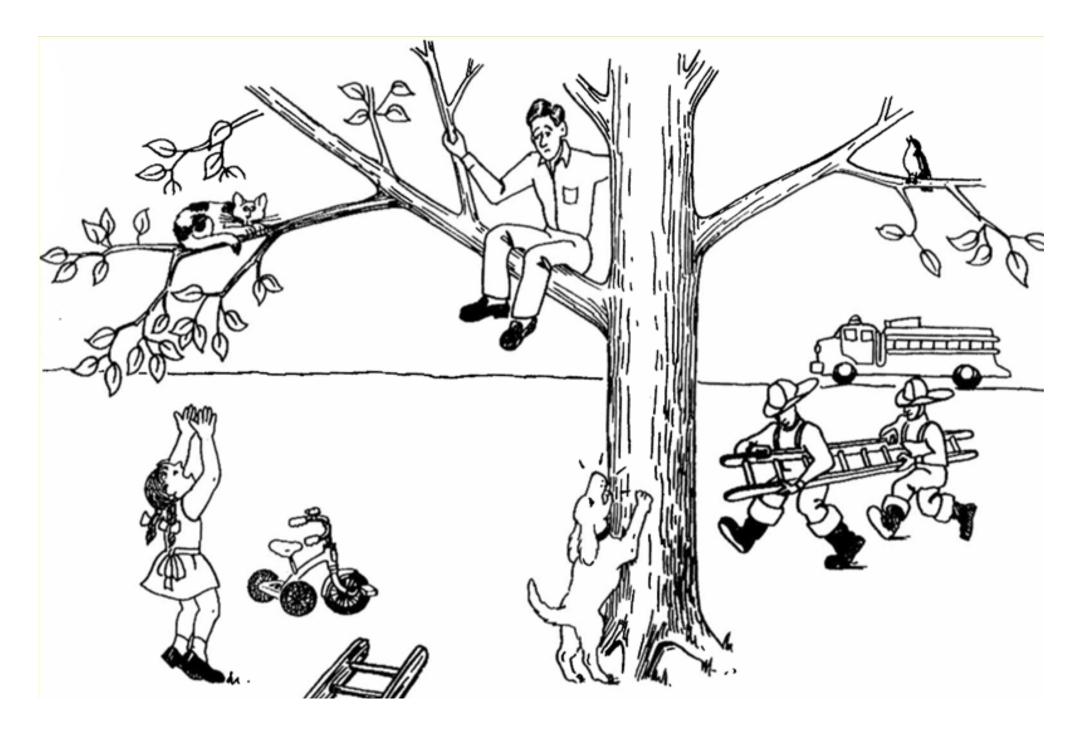
Brain injury story and coping cont'd

3. "Tell me about your recovery. What kinds of things have you done to try to get better since your head injury?"

If no response in approximately 10 seconds, prompt:

"Tell me about any changes you've needed to make in your daily life."











Cultural differences – an Aussie adaptation



Cheese and vegemite sandwich







Supplementary Tests

- Aphasia Bank Repetition Test (2007)
- Verb Naming Test (from the Northwestern Assessment of Verbs and Sentences-Revised, Field Test Version)
- > Boston Naming Test, Second Edition, Short Form (2001)
- Western Aphasia Battery-Revised (2007) -- AQ only
- Optional Verbal Fluency (F, A, S).
- Repeatable Battery for the Assessment of Neuropsychological Status (1998)



Longitudinal communication recovery following severe TBI (Togher, McDonald, Tate, Turkstra, Holland & MacWhinney)

Background and progress

- Major aims of this project are to identify predictive factors of communication outcomes at 2 years and to identify optimal time frames for recovery
- 5 year NHMRC Project Grant
- > N=58 participants
- > Data collected at 3, 6, 9, 12 and 24 months post injury
- Data collection will be completed by March 2015 (i.e. 2 year data)
- > Protocol includes:
 - Standardised communication assessments including aphasia, dysarthria, cognitive communication
 - TBI Bank Protocol range of standardised tests and discourse tasks including picture description, procedural description, illness narrative, conversation with significant other
 - Neuropsychological screening battery



Feasibility of conducting TBI Bank protocol

Question: Is it feasible to conduct the TBI Bank protocol with TBI participants during the sub acute phases of recovery (i.e. at 3 months and 6 months post injury)?

Participants:

- N=48 participants with severe TBI were assessed using the TBI Bank protocol at 3 months
- > N=53 participants were assessed at 6 months



Compliance with protocol completion

At 3 months

- > 45/48 completed the full protocol
- > 3/48 partially completed the protocol

At 6 months

- > 51/53 participants completed the full protocol
- > 2/53 partially completed the protocol





- Participants were less likely to complete:
 - XThe Aphasia Bank Repetition Test
 - X Describing an important event
- ➤All participants completed:
 - ✓ Cinderella Story
 - ✓ Recovery narrative
 - ✓ Procedural discourse task (making a Cheese and Vegemite sandwich)





Comparison of 3 and 6 month data

- conversational topics (Sophie Brassel SP Honours)
- global ratings of conversation (An An Chia SP Honours)
- procedural discourse (Elin Stubbs Karolinska Institute Sweden Masters)
- narrative discourse picture description (Stephanie Weir BHS Honours – collaborating with Jessica Richardson)

Recovery during the first 12 months (Elise Elbourn - PhD)

- Incidence of aphasia, dysarthria and cognitive communication disorders
- Narrative discourse recovery
- Important event





TBI Bank

- Diagnostic tool
- Feasible for use with participants in the subacute stages of recovery
- Objective discourse measures from computerised analysis
- > Aims to reduce participant burden in long term
- Shared international database to foster collaborative research activity
- Interested parties can contribute discourse to the repository
- > Tool for students and researchers to study spoken discourse

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