

日本手話失語症検査作成に向けて

[研究代表者]

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①失語症検査の必要性

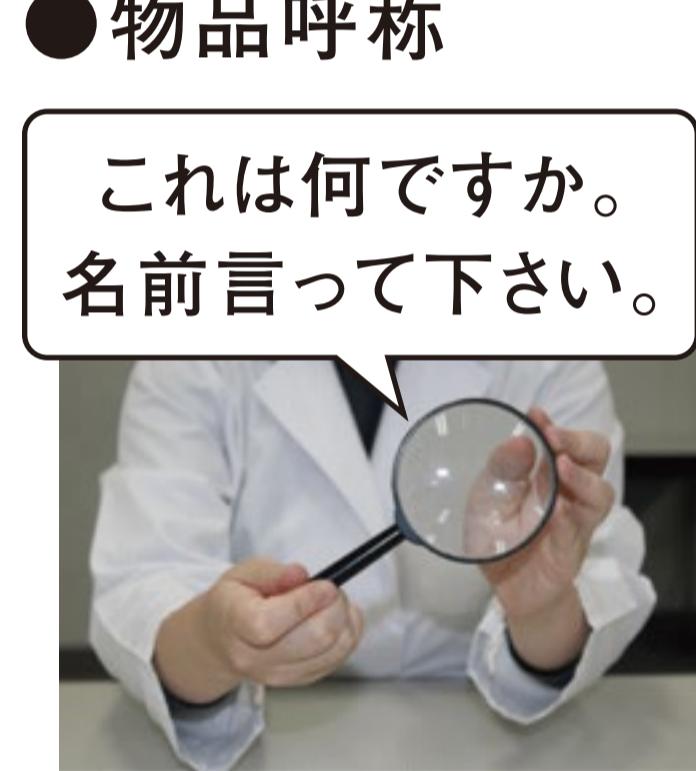
脳損傷により、手話話者は手話の失語症になります。失語症の診断とリハビリには専門的な検査が必要です。

アメリカ手話など一部の手話言語には既に失語症検査がありますが、日本手話用の検査はありません。

特に、手話言語で重要な空間を使う言語表現は、音声言語用の既存の検査の手話訳では評価できません。

音声言語用の失語症検査(一部)			
検査名	WAB失語症検査(日本手話版の基盤に採用)	標準失語症検査	ボストン失語症診断検査
構成	自発話、話し言葉の理解、復唱、呼称、読み、書字、行為、構成行為・視空間行為・計算	聴く、話す、読む、書く、計算	会話と説明の発話、聴覚的の理解、口頭表出、読む、書く、行為
普及	日本語など、10か国語に翻訳	日本語版のみ	7か国語に翻訳(日本語版なし)

※WAB失語症検査の検査項目例

●話し言葉の理解	●物品呼称	●復唱
<p>「灰皿」はどれですか。</p> 	<p>これは何ですか。名前言って下さい。</p> 	<p>私の真似をして言ってください。「まど」</p> 

②手話版検査作成の難しさ

アメリカ手話失語症検査(SALK Institute for Biological Studies作成)は、ボストン失語症診断検査を元に、アメリカ手話特有の検査を加えて作られています。

日本手話版は、WAB失語症検査を元にします。手話版の検査の作成は、既存の失語症検査を手話に訳すだけでは不十分です。注意点と対応を一部紹介します。

手話版作成時の注意点(アメリカ手話)	本研究チームの対応(日本手話)
検査者は、訓練を受けた アメリカ手話母語話者である必要がある。	訓練を受けた母語話者を各地に配置するのは困難なため、 検査内の指示は全て動画化する。
手話検査には不適切な語がある。地域差がある語や、 そのものを指差す語(例:身体部位)など。	高頻度語でも地域差のある語(「春」など)は使用せず、 身体部位も指差しになるため使用しない。

(Pickell et al., 2005を参考に作成)

③進捗状況

言語聴覚士・言語学者・日本手話母語話者などが議論を重ねながら、作成を進めています。

まずは単語の検査などから着手し、将来的には手話特有の表現の検査まで作成する予定です。

復唱				単語の理解／呼称	手話特有の表現
頻用単語・複合語など、原版の項目に合わせて問題を作成。 口の動きの複雑さには、Brentari(1998, 2019)の手話の音韻構造の複雑度を採用。				【検査語の条件(一部)】 ①図像性 (語を知らないても意味が推測できる度合い)が低い ②指文字を含まない ③地域差が少ない →武居(2013)の図像性の低い語178語を元に、他の条件について日本手話母語話者とも協議して選定。	【検討中の項目】 ・CL表現 (形や質感の表現で空間内に状況を描き出す) ・空間を使用する言語表現 (例:空間動詞・一致動詞・指差しの代名詞的表現)
↑	指	関節	例		
↓	単純 全ての指	伸ばす	乳児		
↑	複雑 全ての指	完全に曲げる	良い		
↑	複雑 親指と人差し指と中指	少し曲げる	動物		

Development of a Japanese Sign Language Aphasia Test

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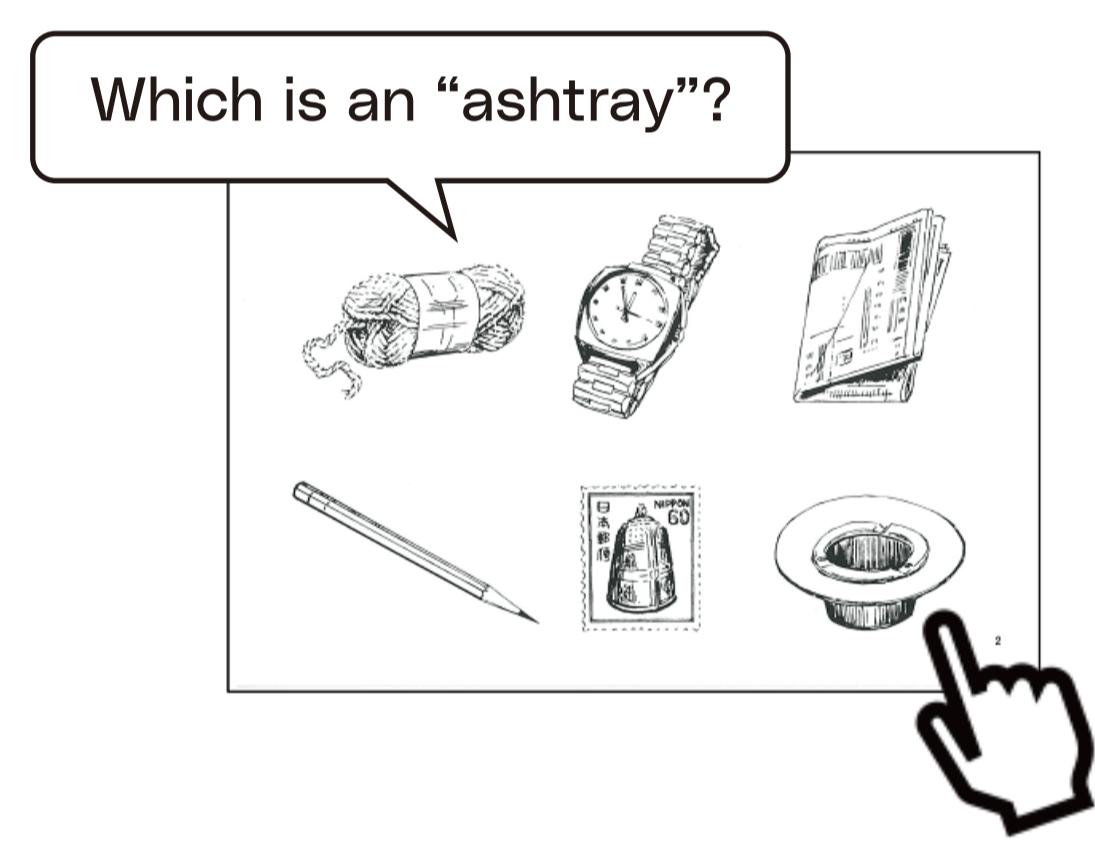
① Necessity of specific aphasia tests

Sign language aphasia may occur in signers after brain injuries. Specific tests are required for the diagnosis and rehabilitation of aphasia. Sign Language Aphasia tests have developed in some sign language, such as American Sign Language, but there is no test for Japanese Sign Language. Linguistic expressions that use space are important in sign languages, and it is particularly difficult for these to be evaluated by sign language translations of existing tests for spoken languages.

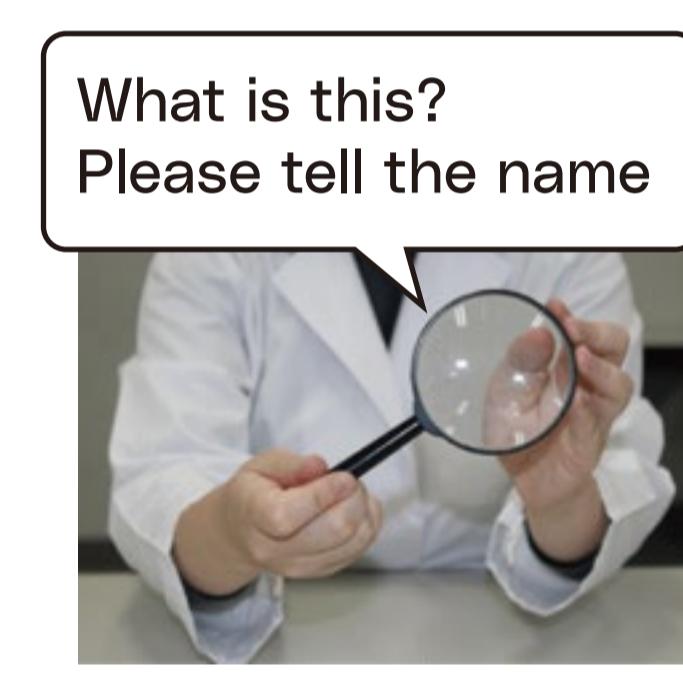
Aphasia Tests in Spoken Languages (Examples)			
Name of test	Western Aphasia Battery (The model for our aphasia test for Japanese Sign Language)	Standard Language Test of Aphasia	Boston Diagnostic Aphasia Examination
Configuration	Spontaneous speech, Auditory verbal comprehension, Repetition, Naming and word finding, Reading, Writing, Apraxia, Constructional, visuospatial, and calculation tasks	Listening, Speaking, Reading, Writing, Calculation	Conversational and expository speech, Auditory comprehension, Oral expression, Reading, Writing, Praxis
Extent of spread	Translated into 10 languages, including Japanese.	Japanese version only	Translated into 7 languages (no Japanese version)

*Examples of test items in the Western Aphasia Battery

● Auditory verbal comprehension



● Naming items



Type	E.g.
Common words	Ball Comb Toothbrush
Other words	Nail clipper Magnifying glass

● Repetition



Type	E.g.
High frequency words	Window
Compound words	Snowman
Numbers	33
Common expressions	The telephone is ringing.
Words requiring dexterous mouth movements	Japan High School Baseball Federation

② Difficulties of developing sign language aphasia tests

The Sign Aphasia Test Battery for American Sign Language (developed by the SALK Institute for Biological Studies) is based on the Boston Diagnostic Aphasia Examination, with features specific for American Sign Language incorporated.

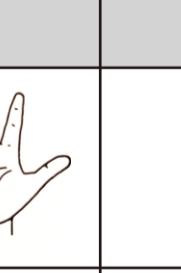
Our Japanese Sign Language Aphasia Test is based on the Western Aphasia Battery. When developing the sign language version of the test, it is not sufficient to simply translate the existing aphasia test. We introduce some points to note and approaches to take.

Points to keep in mind in developing a sign language aphasia test (American Sign Language)	Approaches of our research team (Japanese Sign Language)
The examiner must be a trained native signer of American Sign Language.	All instructions within the test shall be put into a video format due to the difficulty of locating trained native signers in various areas.
Aphasia tests for spoken languages include some inappropriate words for sign language aphasia tests, for example, words with regional variations or words that point directly to the objects that they refer to (e.g., body parts).	Even among high frequency words, we avoid words with regional variations (e.g., "spring") and body part words because they point directly to the body regions.

(Created with reference to Pickell *et al.*, 2005)

③ Status of progress

We have been driving this project forward discussing with speech-language pathologists, linguists, native signers of Japanese Sign Language. The plan is to start with word tests, and in the future, develop tests for sign language-specific expressions.

Repetition				Word comprehension/ Naming	Sign language-specific expressions
The test items are based on the ones in the Western Aphasia Battery, including frequently used words and compound words. For the complexity of mouth movement, Brentari's (1998, 2019) theory of sign phonology was consulted.				[Test word conditions] ① Avoid iconic expressions, that is, expressions whose meanings can be guessed from their forms ② Does not include finger spelling ③ Few regional variations → Words meeting these conditions will be selected from Takei's (2013) list of 178 low iconicity words, discussing with native signers of Japanese Sign Language.	[Items under investigation] -CL expressions (Depicting a situation in space through the expression of shapes and textures) -Spatial linguistic expressions (e.g., spatial verbs, agreement verbs, pronominal pointing expressions)
Brentari's analysis (examples are of Japanese Sign Language)					
	Fingers	Joints	Example		
Simple	All		Stretch	Infant	
	All		Bend completely	Good	
Complex	Thumb, index & middle		Bend a little	Animal	