

Cultural Adaptation of The International Shopping List Test, a Verbal Episodic Memory Test

C. J. Edgar¹, A. Schembri², E. Bove², P. Maruff²

¹ Cogstate, Clinical Science, New Haven, USA; ² Cogstate, Clinical Science, Melbourne, Australia



Objectives

The International Shopping List Test (ISLT) was designed as a verbal episodic memory test easily adaptable to different languages and cultures and with high ecological validity. The psychometric properties of the test have been established in several populations and languages. Here we present data on the cultural adaptation process in 12 novel languages/regions.

Methods

- In order to generate novel word lists for the ISLT, an expert linguist from the culture of interest is engaged, given an initial set of shopping-list items (e.g. English for the US) and instructed to identify those shopping-list items that are commonly available locally
- The items identified as commonly available locally are then assembled into an online survey
- Local respondents are instructed to respond to each item as follows:
 - ✓ “Please indicate how easy it is to obtain the following items”
 - ✓ Next to each item, a 4-point Likert scale is presented (1=“very easy”, 2=“easy”, 3=“difficult”, and 4=“very difficult”)
 - ✓ Several potential replacement items are put forward for initial items with a median score of 3 (difficult) or greater and additional survey data collected to identify those with a suitable median score (i.e. “very easy” or “easy” to obtain)
- A total of 643 survey responses were analyzed across the 12 adaptations
 - ✓ Mean age of respondents was 32.9 years (SD 13.5), min 10, max 100
 - ✓ 63% were female

Results

Replacement by expert linguist of words from initial starting list

- The linguist replaces more words initially when there is both a greater language and regional/cultural difference, e.g.:
 - ✓ US English to Singaporean Malay 56/128
 - ✓ US English to Taiwanese Chinese 74/128
 - ✓ Northern Irish English to Irish English 7/128

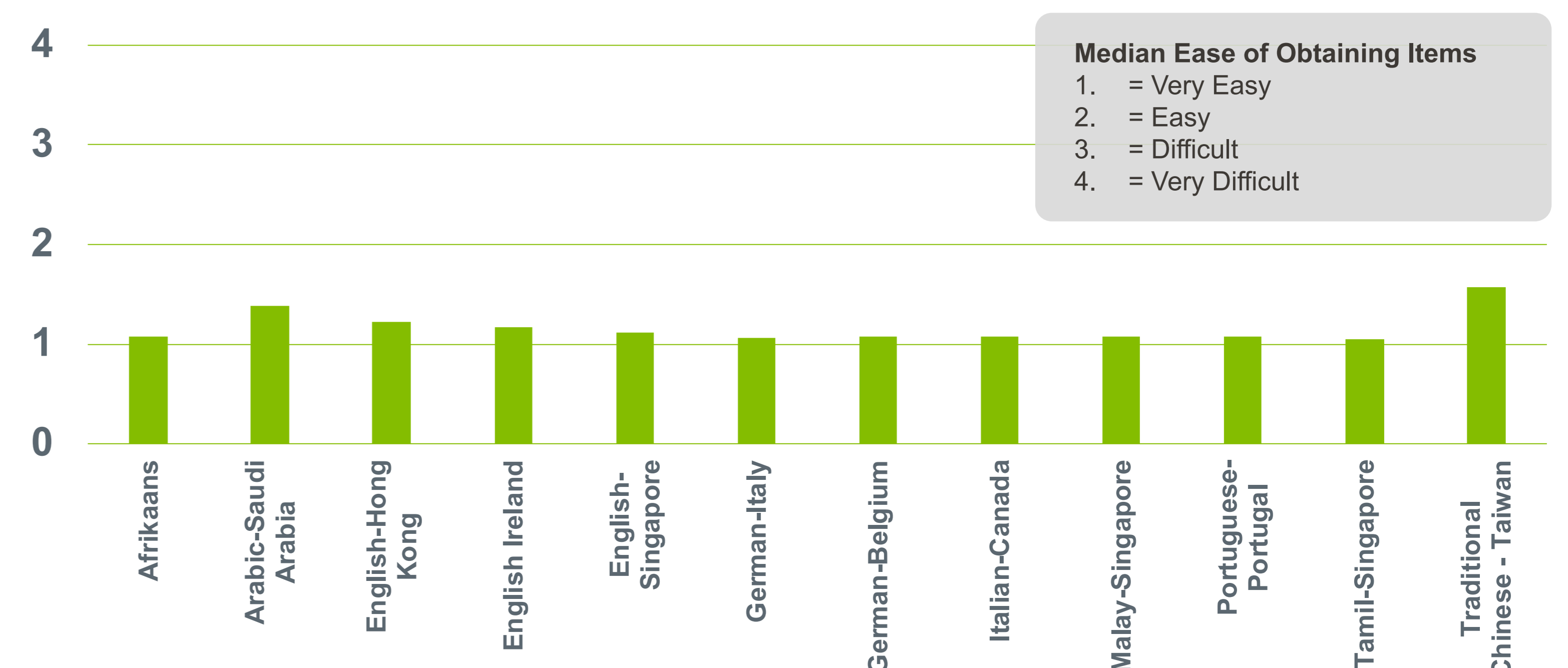
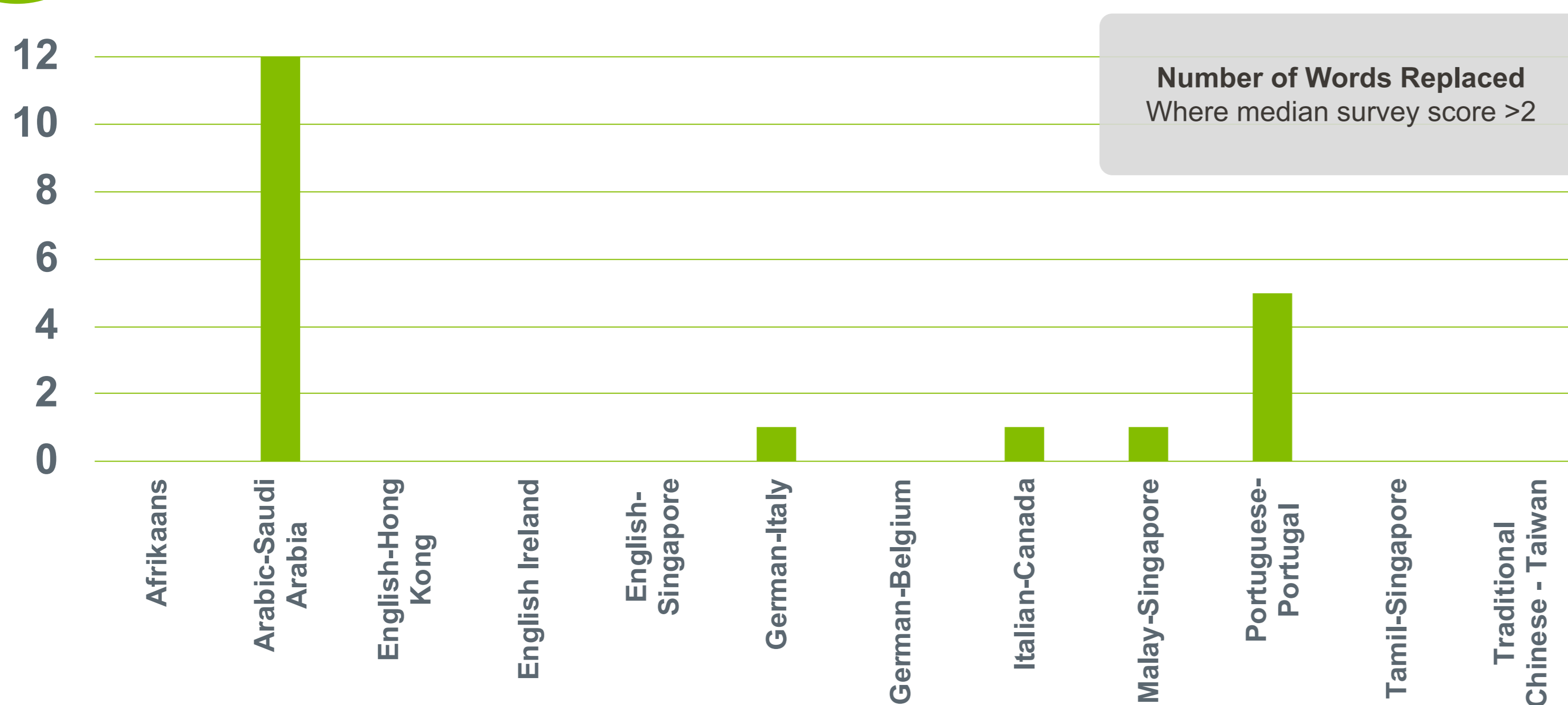
Common issues

- Expert often replaces words due to:
 - ✓ Differences in local spelling
 - ✓ Religious/legal sensitivity e.g. alcohol and pork products in predominantly Muslim regions
 - ✓ Low availability of product e.g. global distribution of grains, fruits and vegetables
 - ✓ Differences in specific meaning e.g. calamari as ‘squid’ versus calamari as ‘fried breaded squid rings’; soda as ‘carbonated soft drink’ versus soda as ‘cleaning product’

Survey Results

- For all resulting lists the highest median word score was 2 (easy to obtain)
- With the exception of Traditional Chinese for Taiwan, the majority of median word scores were 1 (“very easy” to obtain)

Final Word Lists



Conclusions

- Both linguist review and survey methods generated important and unique findings for construction of ecologically valid word lists
- Issues missed in the first review by the linguist might be identified earlier in the process with the addition of qualitative information, such as cognitive debriefing
 - ✓ e.g. chewing gum was selected for Singapore by the expert, but its sale is restricted in the country
- However, words of concern (survey median ≥ 3) not always identified early-on (in first N=5 survey responses)
 - ✓ This suggests a typical N=5 cognitive debriefing approach may not be sufficient and is not a necessary step in the process
- The construction of 128-word item pools currently supports use of the ISLT with 8-10 alternate forms
- Identification of surplus, suitable replacement items not included in final lists suggests it may be feasible to generate larger item pools >128 to generate more alternate forms