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English and Arabic Vowels: Ferreting Out the Similarity for Bridging Pronunciation Accuracy

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Abstract

This study aimed at exploring the similarity between Arabic and English vowel sounds that may benefit Indonesians to pronounce some English vowels. This investigation approached whether their Arabic acquisition could facilitate their learning target language, which is English. To come up with the sought-after similarities, requiring an in-depth study on the existing literatures discussing the phonetic features of those two languages was the step to take. Accordingly, an archival study was selected and employed as a qualitative research design supported by the secondary data analysis method. Several kinds of literatures as the data sources were comprising scholarly journal articles, theory books of Arabic and English phonology, and proceedings. All of the data were available online and were readily accessed through several search-engine platforms; one of which was Google Scholar. The data collection process involved identifying the data set, evaluating the data set, tabulating, and synthesizing the data. The findings have articulated that English and Arabic languages have lax/short and tensed/long vowels. The short vowels comprised /ʌ/; /ɪ/; and /ʊ/. Meanwhile, the long vowels encompassed /a:/, /i:/, and /u:/. This sort of similarity has conveyed the notion of linguistic proximity, which contributes to language transfers upon acquiring the target language.

Keywords: Arabic vowels, EFL, English vowels, language acquisition, phonetic similarity, vowel correspondence

1. INTRODUCTION

Every language in the world has its distinctive speech sound patterns (Sapir, 1925). This notion has been part of the most celebrated Sapir-Whorf's hypothesis on linguistic relativism, enunciating how people perceive something that somewhat depends on their spoken language (Sharifian, 2017; Slobin, 1996). The Sapir-Whorf's relativism has attracted many researchers in investigating crosslinguistic phonological differences among languages (Mitleb, 1984; Grabe, 1998; Ohata, 2004; Li et al., 2007; Pallawa & Alam, 2013; Ashour, 2017; Stopar, 2017).

Phonological distinction across languages as exhibited in the previous studies may oftentimes lead to 'crosslinguistic influence'— the notion referring to how people's comprehension of one certain language can influence their perception and production in another language (Jarvis & Pavlenko, 2008). Crosslinguistic influence usually occurs in people with bilingualism or people learning a foreign language (Solís, 2015). In terms of phonological influence across languages, this argument is strengthened by several studies mentioning that crosslinguistic transfers are experienced by students learning their second— or foreign— language; it also occurs to people who speak more than one language in which their first language may interfere their second language's phonological acquisition (Melby-Lervåg & Lervåg, 2011; Marian et al., 2012; Tong et al., 2017; Gusdian, 2019)

Despite the uniqueness of each language's phonological patterns, many languages share some similar speech sounds (Brown et al., 2013; Lestiono & Gusdian, 2018). Such similarity is majorly found in languages that belong to the same family (Shopen, 2007; Lestiono & Gusdian, 2018). However, several other studies have also exhibited that languages from entirely different families may also share corresponding speech sounds. For instance, Lestiono & Gusdian (2017) investigated several identical consonant sounds indicated in English, which belongs to the Germanic language family and Arabic as a Semitic language. Another study by Syamsuar (2020) has revealed some sound correspondences in three different language families—English (Germanic), Arabic (Semitic), and Bahasa Indonesia (Austronesian).

Further, some consecutive studies conducted by Gusdian & Lestiono (2019; 2020) have found that Arabic and English sound correspondence can facilitate Indonesian EFL students to learn English pronunciation. In these studies, Indonesian EFL students employ their knowledge of Arabic speech sounds to pronounce English words containing five consonants (/ʃ/; /ʤ/; /ð/; /θ/; and /z/) that happen to exist in both languages. In other words, the crosslinguistic transfer that occurs between Arabic and English can enhance students' pronunciation learning. However, these studies focus merely on the consonant correspondences in Arabic and English. Besides, to the best of the researchers' knowledge and preliminary investigations, there has not been any single study investigating the vowel sounds' similarity in Arabic and English that may enhance the pronunciation learning of EFL learners in Indonesia. Consequently, this current study aims to seek the vowel sound correspondence between Arabic and English.

Consequently, this current study aims to direct a distinct question, "How do Arabic vowel sounds correspond with English vowel sounds?". This question is further deployed into whether Arabic and English share similarities in terms of the phonetic features of

vowels; whether Arabic and English share comparable articulatory features, such as tongue position, tongue height, lip roundedness, and articulation length; and whether the revealed resemblance between Arabic and English could facilitate English as Foreign Language (EFL) learners in Indonesia to acquire proper English pronunciation, to be particular in pronouncing the targeted vowels. The finding of this study is expectedly to contribute an implication towards EFL learning strategy, to be particular the acquisition of English pronunciation of vowels. Further, the revealed finding on vowel correspondence is a potential way to upkeep accurate English pronunciation among Indonesians learning English, who have the necessary knowledge of Arabic vowels as the bridge or mediating language to acquire English.

2 LITERATURE REVIEW

2.1 Arabic Vowel Sounds

Although Arabic contains diverse dialects that may linguistically vary, Modern Standard Arabic (MSA) is the standardized version acknowledged in Arabic speaking countries (Badawi et al., 2004). According to MSA, standard Arabic only consists of six vowel sounds; there are three short vowels and three long vowels (Ryding, 2005). The distribution of the vowel sounds in the Modern Standard Arabic is illustrated in Table 1 below.

Table 1. The Configuration of Arabic Vowel Sounds

Tongue Position	Front		Central		Back	
	Long	Short	Long	Short	Long	Short
High	/i:/	/I/			/u:/	/ʊ/
Mid						
Low			/a:/	/ʌ/		

From the table, it can be seen that the vowel sounds create three sets of sounds, conforming long and short vowels. The first set comprises high front vowels, the long (tense) /i:/ and the short (lax) /I/. The second set contains the long (tense) /u:/ and the short (lax) /ʊ /; this pair has the same high tongue position as that of the first pair. The difference between these two pairs only lies on the realization of the front part (for /i:/ and /I/) and the back parts of the tongue (for /u:/ and /ʊ/). The last set includes the long and short low central vowel sounds represented by /a:/ and /ʌ/, respectively. The words that exemplify the vowels in Arabic are shown in Table 2.

Table 2. The Examples of Words with Arabic Vowels

Vowel	Arabic Word and Pronunciation	English Translation
/i:/	فِيْ/fi:/	‘inside’
/I/	مِنْ/mIn/	‘from’
/u:/	الرّوم/ru:m/	‘Rome’
/ʊ/	دُنْيَا/dʊnja:/	‘world’
/a:/	لا /la:/	‘no’
/ʌ/	أنت/ʌntʌ/	‘you’ (for male)

2.2 English Vowel Sounds

According to Crystal (1994), English has twenty vowels. These vowel sounds are classified into twelve monophthongs and eight diphthongs. The monophthong vowels are also further categorized into five long and seven short vowel sounds, respectively. As the main focus of this current study is single sound (monophthongs), Table 3 below represents the vowel distribution of English monophthongs as adapted from Crystal (1994) and McMahon (2002).

Table 3. The Configuration of English Vowel Sounds

Tongue Position	Front		Central		Back	
	Long	Short	Long	Short	Long	Short
High	/i:/	/I/			/u:/	/ʊ/
Mid		/ɛ/	/ɛ:/	/ə/	/ɔ:/	/ɔ/
Low		/æ/	/a:/	/ʌ/		

According to the table, four vowels are articulated when the tongue's front part raises towards the hard palate forming the front vowels (/i:/, /I/, /ɛ/, and /æ/). Four other sounds are produced as the tongue part raises towards the area between the hard and soft palates forming the central vowels (/ɛ:/, /ə/, /a:/, and /ʌ/). Back vowels, formed when the tongue's back area raises towards the soft palate, also consist of four monophthongs. Besides, there are five sets of sounds corresponding the long and short vowels, such as /i:/ and /I/, /u:/ and /ʊ/, /ɛ:/ and /ə/, /ɔ:/ and /ɔ/, and /a:/ and /ʌ/. The examples of words that contain the English vowels are displayed in Table 4.

Table 4. The Examples of Words with English Vowels

Vowel	English Word	Pronunciation
/i:/	sheep	/ʃi:p/
/I/	dip	/dIp/
/u:/	rude	/ru:d/
/ʊ/	put	/pʊt/
/a:/	tart	/ta:(r)t/
/ʌ/	fun	/fʌn/
/ɛ:/	heard	/hɛ:(r)d/
/ɛ/	net	/nɛt/
/ə/	pencil	/’pɛnsəl/
/ɔ:/	water	/wɔ:tə(r)/
/ɔ/	ton	/tɔn/
/æ/	cat	/kæt/

3. RESEARCH METHODS

This current study was conducted to arrive at the answer to the quest on whether certain similarity does exist between English and Arabic vowels. This sort of investigation is benefiting English as a Foreign Language (EFL) learning in the Indonesian context, in which

Indonesians learning English are of much exposed to Arabic, though in a basic level of acquiring Hijaiyah letters upon their learning reciting Holy Quran as the holy scripture of the majority religion in Indonesia. This investigation approached whether their Arabic acquisition could facilitate their learning target language, which is English. Therefore, studying possible similarities between English and the mediating language, Arabic, was the focus of the study. To come up with the sought-after similarities, requiring an in-depth study on the existing literatures discussing the phonetic features of those two languages was the step to take. Accordingly, an archival study was selected and employed as a qualitative research design supported by secondary data analysis method.

In conjunction with the abovementioned intention, the data to collect were mainly sourced from the written theories and information particularly discussing Arabic and English vowel sounds. There have been a number of literatures that designated the phonetic features to search for. Several kinds of literatures were comprising scholarly journal articles, theory books of Arabic phonology, theory books of English phonology, and seminar proceedings. All of the data were available online and were readily accessed through several search-engine platforms; one of which was Google Scholar.

Setting compelling data sources, the researchers then proceeded with the succeeding stage, which was data collection process. As previously elaborated, this research required a closer look into a number of existing literatures. Henceforth, the data collection process involved identifying the data set, evaluating the data set, and analyzing the data. During the data identification, the researchers reviewed all literatures about Arabic and English speech sounds. In this stage, the focus was on the displayed list of vowel sounds that exist in both languages, Arabic and English.

Subsequently, during the data evaluation process, the researchers assessed and compared the data generated from all literatures. This way, the researchers could sort out some relevant vowel sounds to investigate the intended sounds that merely exist in Arabic and English, but remain absent in Bahasa Indonesia; and thus a feasible mediation for the acquisition of English among Indonesian learners. Digging out those data set, eventually, the researchers were set with the decision that the data were sufficiently organized and developed. As for the data analysis, the researchers classified the data based on the major research problem. In this way, it was discreet to outline all the gathered data to determine the correspondence of the vowel speech sounds. This aimed vowel correspondence served as the definite answer to the quest on how Arabic vowel sounds could facilitate the accurate pronunciation of English vowels. This was departed from the initial assumption to disclose that both short and long vowel conceptions do exist in the two investigated languages, Arabic and English. This detailed tabulation and synthesis would result in the proposed strategy for learning English pronunciation among EFL learners in Indonesia.

4. FINDINGS

From the data gathered through the above-mentioned procedures, it is perceived that English comprises more vowels than Arabic. As seen in Table 1 and Table 3, the number of English vowels (monophthongs) is twice bigger than that of the Arabic vowels. Further, the researchers found several vowel sound correspondence between Arabic and English vowels. The corresponding vowels are presented and discussed as follows.

4.1 English-Arabic Corresponding Vowel Sounds

In the data, it is found that all six Arabic vowels also exist in English vowels. Table 5 below illustrates the sound correspondence between English and Arabic vowels.

Table 5. The Sample Words Showing Vowel Correspondence between English and Arabic

Vowel	Arabic words and pronunciation	English words and pronunciation
/i:/	فِي/fi:/	‘sheep’ /ʃi:p/
/I/	مِنْ/mIn/	‘dip’ /dIp/
/u:/	الرّوم/ru:m/	‘rude’ /ru:d/
/ʊ/	دُنْيَا/dʊnja:/	‘put’ /pʊt/
/a:/	لا /la:/	‘tart’ /ta:(r)t/
/ʌ/	أنت/ʌntʌ/	‘fun’ /fʌn/

Departing from the table, the production of these six vowel sounds involves the same articulatory features, including the tongue position, tongue height, lip roundedness, and articulation length. The first pair of vowels that shares the same articulatory features in both languages comprises /i:/ and /I/; both vowels are produced when the tongue's front part is placed forward and closed to the hard palate. Besides, the lips are unrounded. Therefore, phonetically, /i:/ and/I/ are called high front unrounded vowels. The difference between both vowels lies on the length of the articulation which will be discussed further. Next, the other pair of vowels that exists in Arabic and English includes high back rounded vowels (/u:/ and / ʊ/). This pair is articulated when the back part of the tongue raised highly towards the palate. In addition, the lips are rounded when articulating these vowels. Like the first vowel pair, the difference between both vowels also lies in vowel tensity/laxity (vowel length). The last pair of vowels that appears in both languages involves low central unrounded vowels (/a:/ and /ʌ/). Both vowels are constructed as the tongue's position is halfway between the front and the back part of the mouth and not raised towards the palate. Meanwhile, the lips are also unrounded. Tantamount to the two preceding sets, the discrepancy between /a:/ and /ʌ/ is to be reviewed below in terms of the long and short vowels.

4.2 Long Vowels

In phonology, the notion of long and short vowels essentially refers to the vowel production duration. The vowel length may result in a different phoneme that distinguishes the meaning— for example, the English minimal pairs 'seat' and 'sit'. The former word is pronounced /si:t/ that contains a long vowel /i:/; meanwhile, the latter is pronounced /sIt/ with the short vowel /I/. From these two words, it is clear that the different length of vowels may lead to different meanings.

From the data, three long vowels are present in both languages. These long vowels are illustrated in Table 6.

Table 6. Arabic-English Long Vowels

Vowel
/i:/
/u:/
/a:/

In Arabic, the long vowels are represented by three different Hijaiyah (Arabic) letters, namely the letter 'ي' or 'ya'—which signifies /i:/, the letter 'و' or 'waw'—representing /u:/, and the letter 'ا' or 'alif'—which shows /a:/. Meanwhile, in English, words that contain the long vowel /i:/ oftentimes appear in words with 'ea' ('seat') or 'ee' ('seen') in their spelling. Besides, words with the long vowel /u:/ typically appear with 'oo' ('food') or 'ue' ('hue') or when the syllable is stressed ('parachute'). In addition, words with the long vowel /a:/ usually appear when the syllable is also stressed ('tart' and 'bizarre').

4.3 Short Vowels

Table 7. Arabic-English Short Vowels

Vowel
/I/
/ʊ/
/ʌ/

The short vowels in Arabic are not represented as letters. Instead, they appear as diacritical marks, namely *fathah*, *kasrah*, and *dhammah*. *Fathah* (ـَ) is described as a small diagonal line above a hijaiyah letter. For instance, 'وَ' is formed as the letter 'waw' is added with a *fathah* above it; thus, it is pronounced /wa/. *Kasrah* (ـِ) is characterized as a small diagonal line below a Hijaiyah letter. For example, 'دِ' is produced when the letter 'dal' is added with a *kasrah*. Then, it becomes /di/. *Dhammah*, similar to *fathah*, is placed above a letter. The symbol looks like a small coil like 'waw' (ـُ). For instance, ' دُ' is articulated as /du/ resulted from the plain letter 'dal' added with *dhammah*.

These three short vowels are also present in English with—of course—different representation. The short vowel /I/ usually appears in words with 'i' in their spelling, such as 'knit' and 'children'. Another short vowel 'ʊ' often exists in words with 'u' (like 'full' and 'pull') and 'ou' (like 'should'). The short vowel /ʌ/ also exists in words with 'u' (such as in 'cut' and 'shut').

5. DISCUSSION

The results have revealed that six vowels (monophthongs) are present in both Arabic and English. These findings are in accordance with Syamsuar (2020), who found the sound correspondence in three different languages, including Arabic and English. Some vowel sounds—like short vowels /ʊ/, and /ʌ/— are even more common than the others as they frequently exist in many spoken languages in the world. It is in line with the notion arguing that many languages share some similar speech sounds (Brown et al., 2013; Lestiono & Gusdian, 2018).

Moreover, the sound correspondence between the Arabic and English vowels has proven that although both languages are rooted from different language families with their

own distinctive phonological patterns, they still share several phonological characteristics. It is somewhat relevant to Lestiono & Gusdian (2017), who found consonant similarities between Arabic from the Semitic language family and English from the Germanic language family, and Syamsuar (2020), who revealed sound correspondence from three different language families—Arabic (Semitic), English (Germanic), and Bahasa Indonesia (Austronesian).

These results may have further implication on the English pronunciation learning of the Indonesian EFL students. It has been generally known that Indonesia is a country with the largest Muslim population in the world. The majority of Indonesian Muslims have learned to recite Quran ever since they were still kids. Hence, it is highly presumable that Indonesian EFL students have been well acquainted with Arabic speech sounds (Lestiono & Gusdian, 2017). The Indonesian EFL students' knowledge of Arabic speech sounds can help them learn English pronunciation, especially the long vowels that do not exist in Bahasa Indonesia. This current study typically found that Arabic vowels are the potential means to mediate and facilitate EFL learners in Indonesia to acquire proper English pronunciation. This sort of finding is key to conjugate the linguistic property resemblances that may foster well-regulated learning of English pronunciation. The feature of long vowels is idiosyncratically found in Arabic and English (L2) vowels, but not in Bahasa Indonesia as their L1. Consequently, Arabic is feasibly a mediating language that could assist Indonesians learning English when it comes to produce proper and accurate pronunciation of certain targeted vowel sounds in English. In other words, they can transfer their phonological knowledge of the Arabic long vowels to articulate English words containing the long vowels /i:/, /u:/, and /a:/. Such an implication is in line with 'positive transfer' of the phonologically crosslinguistic influence, in which the students transfer their knowledge of the sound of a certain language (in this case is Arabic long vowels) to the sound production of English words as the target language (Jarvis & Pavlenko, 2008). The existence of the positive transfer, in this case, is predominantly perceived in a different manner from the negative transfer. The word 'positive' is deduced to well-represent the role of Arabic vowels (including their shared similarities to English vowels) to intercede the acquisition of English as the target language for EFL learners (Lestiono & Gusdian, 2017), in the Indonesian context.

Although in many studies, crosslinguistic influence may interfere the learning experience through its negative transfer (Melby-Lervåg & Lervåg, 2011; Marian et al., 2012; Tong et al., 2017; Gusdian, 2019), the implication of this current study findings can allegedly lead to the opposite direction. The students' knowledge on the Arabic long vowels may lead to the positive phonological transfer to their English pronunciation learning and acquisition. This implication shares the same light as Gusdian & Lestiono (2019; 2020) who have investigated how Arabic consonants are applied to facilitate EFL students in Indonesian context to produce some targeted English pronunciation.

6. CONCLUSION

All in all, Arabic and English confirm several vowel correspondences. This correspondence has been providing the answer to the intended quest proposed in this current

paper. After meticulously visiting the existing literatures that showcased the list of vowels in Arabic and English, resulting in the synthesized vowel sounds portraying the phonetic resemblances. The vowels that appear in both languages are long vowels /i:/, /u:/, and /a:/ as well as short vowels /I/, and /ʊ/, /ʌ/. The vowel correspondence found in both Arabic and English has provided substantial conception that languages in the world, regardless of their phonological systems, may share similar characteristics to those of different languages. The two highlights popping out in the study of language acquisition are positive and negative transfers. The finding of this current study has postulated the proposed argumentation that positive transfer is apparent when treating Arabic as a mediatory language for Indonesian EFL learners to acquire English as the target language. This study is contributing to the notion of the positive transfer during the process of acquiring the target language.

For further implication, this current study can be applied to facilitate Indonesian EFL students to learn and acquire proper English pronunciation—especially related to the long vowel production. The long vowel production in English is an intricate and tricky challenge for English learners in Indonesia, as the failure to articulate long vowels affects the differing meaning of the intended words to utter. This is explainable considering that Bahasa Indonesia does not feature the short and long vowel production to denote meanings of its word entries. In the light of the above findings and discussion, it is discerning to make use of Arabic vowel sounds as the intermediary for the Indonesian learners upon their English learning.

REFERENCES

Andi-Pallawa, B., & Fiptar Abdi Alam, A. (2013). A Comparative Analysis between English and Indonesian Phonological Systems. *International Journal of English Language Education*, *1*(3). https://doi.org/10.5296/ijele.v1i3.3892

Ashour, H. M. (2017). Major differences between Arabic and English pronunciation systems: a contrastive analysis study. *AL-Lisan International Journal for Linguistic & Literary Studies*, *1*(1), 132–150.

Crystal, D. (1994). *The Cambridge Encyclopedia of the English Language*. Cambridge University Press. https://doi.org/10.1177/007542429802600408

El-Said Badawi, M. G. C. and A. G. (2004). *Modern Written Arabic: A comprehesive grammar*. Routledge.

Grabe, E. (1998). *Comparative intonational phonology: English and German*. *September*, 157–160.

Gusdian, R. I. (2019). Transfer Fonologis Konsonan Hambat dari Bahasa Jawa ke Bahasa Indonesia. *Jurnal Satwika*, *2*(2), 130. https://doi.org/10.22219/satwika.vol2.no2.130-137

Gusdian, R. I., & Lestiono, R. (2019). *Cater For Proper English Pronunciation In The Primary School Level : Put To Use Arabic Consonants*. *5*(2), 254–261.

Jarvis;, Scott; Pavlenko, A. (2018). *Crosslinguistic Influence In Language And Cognition*. Routledge.

Jones, F. P. (1941). Linguistic Society of America. *The Classical Weekly*, *34*(13), 146. https://doi.org/10.2307/4341113

Lestiono, R. G. (2020). *Linguistic Feature Proximity For Acquiring English Pronunciation*

Among Indonesian Efl Learners: Arabic As The Bridge. *1*, 7–8.

Lestiono, R., Malang, M., Gusdian, R. I., & Malang, M. (2017). *Tracing Language Transfer : Patterning English*. *4*, 1–7.

Li, F., Edwards, J. R., & Beckman, M. E. (2007). Spectral measures for sibilant fricatives of English, Japanese, and Mandarin Chinese. *Proceedings of the 16th International Congress of Phonetic Sciences*, 917–920.

Marian, V., Bartolotti, J., Chabal, S., & Shook, A. (2012). Clearpond: Cross-linguistic easy-access resource for phonological and orthographic neighborhood densities. *PLoS ONE*, *7*(8). https://doi.org/10.1371/journal.pone.0043230

Mcmahon, A. (2002). *An Introduction to English Phonology-Edinburgh University Press*. Edinburgh University Press.

Melby-Lervåg, M., & Lervåg, A. (2011). Cross-linguistic transfer of oral language, decoding, phonological awareness and reading comprehension: A meta-analysis of the correlational evidence. *Journal of Research in Reading*, *34*(1), 114–135. https://doi.org/10.1111/j.1467-9817.2010.01477.x

Mitleb, F. (1984). Vowel length contrast in Arabic and English: a spectrographic test. *Journal of Phonetics*, *12*(3), 229–235. https://doi.org/10.1016/s0095-4470(19)30879-4

Ohata, K. (2004). Phonological Differences between Japanese and English: Several Potentially Problematic Areas of Pronunciation for Japanese ESL/EFL Learners. *Asian EFL Journal*, *26*(4), 551–556.

Ryding, K. (2005). *A Reference Grammar of Modern Standard Arabic*. Cambridge University Press.

Sharifian, F. (2017). Cultural Linguistics and linguistic relativity. *Language Sciences*, *59*, 83–92. https://doi.org/10.1016/j.langsci.2016.06.002

Shopen, T. (2007). *Language Typology and Syntactic Description*. Cambridge University Press.

Slobin, D. I. (1996). From “Thought and Language” to "Language for Speaking. *Rethinking Linguistic Relativity*, *July*, 70–96.

Solís, J. P. . (2015). *Third Language Acquisition: Cross-Linguistic Influence from L1 and L2* (Issue June). Universitat Autònoma de Barcelona.

Stopar, A. (2017). The prosody of focus: non-contrastive, contrastive and verum focus in Slovenian, English and Russian. *Linguistica*, *57*(1), 293–312. https://doi.org/10.4312/linguistica.57.1.293-312

Syamsuar, F. (2020). Sound Correspondences among Cognates Shared by Arabic , English , and Indonesian. *Indonesian Journal of Education, Social Sciences and Research*, *1*(2), 94–107.

Tong, X., He, X., & Deacon, S. H. (2017). Tone matters for Cantonese–English bilingual children’s English word reading development: A unified model of phonological transfer. *Memory and Cognition*, *45*(2), 320–333. https://doi.org/10.3758/s13421-016-0657-0