

Y2 (Disyl) files and variables

Disyl_Items

Variable	Explanation
ItemID	Identification number of wordlikeness judgment item
Session	Session (Session 1 and Session 2 each had a fixed set of items, and Session 1 was always run before Session 2)
SylID1	Identification number of first syllable of disyllabic item: identical to ItemID for syllable judgment experiment (if available), otherwise new (starting with 4000)
SylID2	Identification number of second syllable of disyllabic item: identical to ItemID for syllable judgment experiment (if available), otherwise new (starting with 4000)
Item_ZhuyinFuhao	Wordlikeness judgment item in Zhuyin Fuhao transcription
Item_Pinyin	Wordlikeness judgment item in Hanyu Pinyin transcription
Syl1	First syllable of disyllabic item
Syl2	Second syllable of disyllabic item

Notes:

ㄨ always remains "u". ㄩ becomes "v" in many cases (more than what the Pinyin key-in system would use). Where Pinyin is unambiguous, though, I kept the normal spelling: so now ㄈㄨ and ㄈㄩ are "fu1" vs. "fv1", respectively, but ㄋㄨㄥˇ is niong3.

Note that this change sometimes means that what looks like a front rounded /y/ by the ordinary Pinyin conventions is actually back rounded /u/. E.g. ㄑㄩㄚˋ is spelled "qua4" in the items file, which in normal Pinyin spelling would represent ㄑㄩㄚˇ, but here it's actually ㄑㄨㄚˋ, since ㄑㄩㄚˇ is spelled "qva4" here.

ㄟ stays "i". Again, this means that sometimes the "i" doesn't mean what it normally means in Pinyin. E.g. "zi2" represents ㄗㄟˊ, not ㄗㄞˊ as it normally would. To represent the latter, I use "zih2". Fortunately, there are very few of these.

ㄝ stays "e". ㄝ becomes "eh", which again isn't found in any version of Pinyin that I know, but it's necessary to distinguish e.g. ㄑㄟˊ "chieh1" vs. ㄑㄟˊ "chie1".

Disyl_ParticipantsSummary

Variable	Explanation
Participant	Identification number of participant
Age	Age of participant (years)

Sex	Sex of participant
HomeTaiwanese	Whether Taiwanese is used at participant's home (Yes vs. No)
ParentTaiwanese	Whether participant's parent(s) use Taiwanese (Yes vs. No)
MemoryScore	Participant's mean accuracy in digit recall in reading span test
SemanticPC	Participant's proportion correct in semantic judgments in reading span test
SemxMemScore	Product of participant's memory score and semantic proportion correct
RightHandednessScore	Participant's degree of right-handedness on Oldfield scale (from -2 = obligatory left hand to +2 = obligatory right hand)
LDT_Hit	Participant's hit rate in lexical decision task (vocabulary test)
LDT_FA	Participant's false alarm rate in lexical decision task (vocabulary test)
LDT_Dprime	Participant's sensitivity (d') to very low-frequency words in lexical decision task (vocabulary test)

Disyl_Responses

Variable	Explanation
Participant	Identification number of participant
Session	Session (Session 1 and Session 2 each had a fixed set of items, and Session 1 was always run before Session 2)
SessionDay	Day of session relative to Session 1 (1 = same day; 2 = next day; and so on)
Block	Block of trials (usually 80 trials; the last blocks of Session 1 and Session 2 each have 60 trials)
TrialOrder	Order of trial across both sessions (only randomized within each session)
ItemID	Identification number of wordlikeness judgment item
Response	Wordlikeness judgment (1 = "like Mandarin" = key "L"; 0 = "not like Mandarin" = key "S"; NA = no valid response within time limit: invalid responses show no key press, no key release, key release before key press, or press/release of both keys)
RT	Reaction time for response (key press latency in milliseconds); NA = no valid response within time limit

Disyl_ParticipantsBackground

Variable	Explanation
Participant	Identification number of participant
Age	Age of participant (years)
Sex	Sex of participant
Education	Educational degree pursued by participant (BA or MA)
FirstLanguage	First language reported by participant
HomeLanguage	Home language(s) reported by participant (if more than one, the names are combined in order of dominance; e.g. "MandarinTaiwanese" or "TaiwaneseMandarin")
FluentLanguage	Language(s) that participant claimed to be fluent in (if more than one, the names are combined in order of dominance; e.g. "MandarinTaiwanese" or "TaiwaneseMandarin")
FatherLanguage	Father's language(s) reported by participant (if more than one, the names are combined in order of dominance; e.g. "MandarinTaiwanese" or "TaiwaneseMandarin")
MotherLanguage	Mother's language(s) reported by participant (if more than one, the names are combined in order of dominance; e.g. "MandarinTaiwanese" or "TaiwaneseMandarin")
EverydayLanguage1	Language reported to be commonly used by participant
Fluency1	Participant's self-reported fluency in most commonly used language (fluent vs. medium vs. nonfluent)
EverydayLanguage2	Language reported to be second most commonly used by participant; NA if none
Fluency2	Participant's self-reported fluency in second most commonly used language (fluent vs. medium vs. nonfluent); NA if none
EverydayLanguage3	Language reported to be third most commonly used by participant; NA if none
Fluency3	Participant's self-reported fluency in third most commonly used language (fluent vs. medium vs. nonfluent); NA if none
EverydayLanguage4	Language reported to be fourth most commonly used by participant; NA if none
Fluency4	Participant's self-reported fluency in fourth most commonly used language (fluent vs. medium vs. nonfluent); NA if none

Disyl_ParticipantsHandednessRaw

Variable	Explanation
Participant	Identification number of participant
DominantHand	Participant's self-reported dominant hand
EverChangeHand	Participant's self-report about whether dominant hand changed (Yes vs. No)
ReasonForChange	Participant's self-report about why dominant hand changed (NA if not changed)
FamilyLeftHand	Participant's self-report of any left-handed family members (combined if more than one, e.g. "FatherBrother"; NA if none)
Writing	Response to Oldfield test item on writing (from -2 = obligatory left hand to +2 = obligatory right hand)
Drawing	Response to Oldfield test item on drawing (from -2 = obligatory left hand to +2 = obligatory right hand)
Throwing	Response to Oldfield test item on throwing (from -2 = obligatory left hand to +2 = obligatory right hand)
Scissors	Response to Oldfield test item on using scissors (from -2 = obligatory left hand to +2 = obligatory right hand)
Toothbrush	Response to Oldfield test item on using toothbrush (from -2 = obligatory left hand to +2 = obligatory right hand)
Knife	Response to Oldfield test item on using knife (from -2 = obligatory left hand to +2 = obligatory right hand)
Spoon	Response to Oldfield test item on using spoon (from -2 = obligatory left hand to +2 = obligatory right hand)
Broom	Response to Oldfield test item on upper hand when using broom (from -2 = obligatory left hand to +2 = obligatory right hand)
StrikingMatch	Response to Oldfield test item on striking match (from -2 = obligatory left hand to +2 = obligatory right hand)
OpenBoxLid	Response to Oldfield test item on opening box lid (from -2 = obligatory left hand to +2 = obligatory right hand)
Foot	Response to Oldfield test item on foot preference when kicking (from -2 = obligatory left hand to +2 = obligatory right hand)
Eye	Response to Oldfield test item on using only one eye (from -2 = obligatory left hand to +2 = obligatory right hand)

Disyl_ParticipantsMemoryRaw

Variable	Explanation
Participant	Identification number of participant
Level	Number of items in digit recall set (2 to 6)
Trial	Order of trial in a digit recall set (randomized within
DigitCorrectAnswer	Correct string of digits (warning: Excel may remove initial 0!)
DigitResponse	String of digits entered by participant (warning: Excel may remove initial 0!)
DigitRT	Response time for typing string of digits (milliseconds)
ItemID	Identification number for sentence and digit for semantic judgment and digit recall
Item	Sentence and digit for semantic judgment and digit recall
SemanticResponse	Response for semantic judgment of sentence (1 = semantically proper, 0 = semantically improper)
SemanticCorrectAnswer	Correct semantic status of sentence (1 = semantically proper = key "L"; 0 = semantically improper = key "S")
SemanticAccuracy	Accuracy in semantic judgment (1 = correct, 0 = incorrect)
SemanticRT	Response time for making semantic judgment (milliseconds)

Disyl_ParticipantsVocabularyRaw

Variable	Explanation
Participant	Identification number of participant
ItemID	Identification number of item in lexical decision task
Item	Item in lexical decision task
TrialOrder	Order of trial (randomized
LexStatus	Lexical status of item (Real vs. Fake)
PretestAccuracy	Accuracy on correctly classifying test item in pretest (items: 120 low-frequency real and 120 fake; participants: 42 from the same pool as main experiment)
Response	Lexical judgment (1 = real = key "L"; 0 = fake = key "S")
CorrectAnswer	Correct answer (1 = real, 0 = fake)
Accuracy	Accuracy of judgment (1 = correct, 0 = incorrect)
RT	Reaction time to make judgment (milliseconds)

Note: Nonword Item 42 contains character "籊", which has no 3-byte Unicode representation, only a 4-byte Unicode representation . Thus, it appears as "?" in this

file. The full form of Item 42, as presented to participants, was "箏笛".