Guide to Interpreting the Data Spreadsheets for "Explanation Recruits Comparison in a Category-Learning Task"

Notes for all experiments

1. To preserve participants' anonymity, we deleted participant IP addresses and Amazon Mechanical Turk Worker ID numbers.

2. Rows containing excluded participants are grayed out and appear below the rows containing included participants.

Experiment 1

Column I: Participant condition

- "1" = Control prompts

- "2" = Comparison prompts only

- "3" = Explanation prompts only

- "4" = Both comparison and explanation prompts

Column J: Participant condition

- "compare" = Comparison prompts only

- "explain" = Explanation prompts only

- "compareexplain" / "explaincompare" = Both comparison prompts and explanation prompts ("compareexplain" participants received comparison prompts before corresponding explanation prompts, "explaincompare" participants received explanation prompts before corresponding comparison prompts)

- "freestudy" = Control prompts

Column K: Whether or not participant received explanation prompts

- "0" = Did not receive explanation prompts

- "1" = Received explanation prompts

Column L: Whether or not participant received comparison prompts

- "0" = Did not receive comparison prompts

- "1" = Received comparison prompts

Column Q: Whether or not participant was excluded from analyses

- "0" = Participant included in analyses

- Positive number = Participant excluded from analyses, with number indicating reason for exclusion

Columns AA-KS: Participant responses to study prompts (see column headers for specific prompt)

Column KV: Whether or not participant discovered the 100% foot rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column KW: Whether or not participant discovered the 100% antenna rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column KX: Whether or not participant discovered the 75% elbows/knees rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column KY: Whether or not participant discovered the 75% body-shape rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column KZ: Whether or not participant reported discovering a categorization rule other than the above four rules

- "0" = Did not discover rule

- "1" = Discovered rule

Column LA: Number of categorization rules discovered (out of 4, rules other than the four main rules were not counted)

Column LB: Number of 100% categorization rules discovered (out of 2)

Column LC: Number of 75% categorization rules discovered (out of 2)

Column LD: Whether or not participant discovered at least one 100% rule

- "0" = Did not discover at least one 100% rule

- "1" = Discovered at least one 100% rule

Column LE: Whether or not participant discovered at least one 75% rule

- "0" = Did not discover at least one 75% rule

- "1" = Discovered at least one 75% rule

Column ML: Amount of self-reported explanation on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Column MM: Amount of self-reported comparison on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Experiment 2

Column I: Whether or not participant was excluded from analyses

- "0" = Participant included in analyses

- Positive number = Participant excluded from analyses, with number indicating reason for exclusion

Column J: Participant condition

- "1" = Pairwise comparison, only within-category study

- "2" = Group comparison, only within-category study

- "3" = Pairwise comparison, both within- and between-category study

- "4" = Group comparison, both within- and between-category study

- "5" = Individual explanation, only within-category study

- "6" = Group explanation, only within-category study

- "7" = Individual explanation, both within- and between-category study

- "8" = Group explanation, both within- and between-category study

Column K: Whether participant received comparison or explanation prompts

- "1" = Received comparison prompts

- "2" = Received explanation prompts

Column L: Whether participant was prompted to do only within-category study or both within- and between-category study

- "1" = Only within-category study
- "2" = Both within- and between-category study

Column M: Whether participant was prompted to do individual (explanation)/pairwise (comparison) study or group study

- "1" = Individual (explanation)/Pairwise (comparison) study
- "2" = Group study

Column N: Participant condition (including study order)

- "comparegroupbothbetweenfirst" = Group comparison, both within- and between-category study, between-category study first
- "comparegroupbothwithinfirst" = Group comparison, both within- and between-category study, within-category study first
- "comparegroupwithin" = Group comparison, only within-category study
- "comparepairbothbetweenfirst" = Pairwise comparison, both within- and between-category study, between-category study first
- "comparepairbothwithinfirst" = Pairwise comparison, both within- and between-category study, within-category study first
- "comparepairwithin" = Pairwise comparison, only within-category study
- "explaingroupbothbetweenfirst" = Group explanation, both within- and between-category study, between-category study first
- "explaingroupbothwithinfirst" = Group explanation, both within- and between-category study, within-category study first

- "explaingroupwithin" = Group explanation, only within-category study

- "explainindividualbothbetweenfirst" = Individual explanation, both within- and between-category study, between-category study first

- "explainindividualbothwithinfirst" = Individual explanation, both within- and between-category study, within-category study first

- "explainindividualwithin" = Individual explanation, only within-category study

Column O: Participant condition (excluding study order)

- "comparegroupboth" = Group comparison, both within- and between-category study

- "comparegroupwithin" = Group comparison, only within-category study

- "comparepairboth" = Pairwise comparison, both within- and between-category study

- "comparepairwithin" = Pairwise comparison, only within-category study

- "explaingroupboth" = Group explanation, both within- and between-category study

- "explaingroupwithin" = Group explanation, only within-category study

- "explainindividualboth" = Individual explanation, both within- and between-category study

- "explainindividualwithin" = Individual explanation, only within-category study

Columns AC-HE: Participant responses to study prompts (see column headers for specific prompt)

Column HH: Whether or not participant discovered the 100% foot rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column HI: Whether or not participant discovered the 100% antenna rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column HJ: Whether or not participant discovered the 75% elbows/knees rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column HK: Whether or not participant discovered the 75% body-shape rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column HL: Whether or not participant reported discovering a categorization rule other than the

above four rules

- "0" = Did not discover rule

- "1" = Discovered rule

Column HM: Number of categorization rules discovered (out of 4, rules other than the four

main rules were not counted)

Column HN: Number of 100% categorization rules discovered (out of 2)

Column HO: Number of 75% categorization rules discovered (out of 2)

Column HP: Whether or not participant discovered at least one 100% rule

- "0" = Did not discover at least one 100% rule

- "1" = Discovered at least one 100% rule

Column HQ: Whether or not participant discovered at least one 75% rule

- "0" = Did not discover at least one 75% rule

- "1" = Discovered at least one 75% rule

Column IX: Amount of self-reported explanation on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Column IY: Amount of self-reported within-category comparison on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Column IZ: Amount of self-reported between-category comparison on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Experiment 3

Column I: Study condition

- "comparepair" = Pairwise comparison prompts

- "comparegroup" = "Group comparison prompts

- "explainindividual" = Individual explanation prompts

- "explaingroup" = Group explanation prompts

- "freestudyindividual" = Individual control prompts

- "freestudygroup" = Group control prompts

Column J: Prompt type

- "0" = Control

- "1" = Explanation

- "2" = Comparison

Column K: Whether participant was prompted to do individual (explanation, control)/pairwise (comparison) study or group study

- "0" = Individual (explanation, control)/Pairwise (comparison) study

- "1" = Group study

Column L: Whether or not participant was excluded from analyses

- "0" = Participant included in analyses

- Positive number = Participant excluded from analyses, with number indicating reason for exclusion

Columns Z-GD: Participant responses to study prompts (see column headers for specific prompt)

Column GG: Whether or not participant discovered the 100% foot rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column GH: Whether or not participant discovered the 100% antenna rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column GI: Whether or not participant discovered the 75% elbows/knees rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column GJ: Whether or not participant discovered the 75% body-shape rule

- "0" = Did not discover rule

- "1" = Discovered rule

Column GK: Whether or not participant reported discovering a categorization rule other than the above four rules

- "0" = Did not discover rule

- "1" = Discovered rule

Column GL: Number of categorization rules discovered (out of 4, rules other than the four main rules were not counted)

Column GM: Number of 100% categorization rules discovered (out of 2)

Column GN: Number of 75% categorization rules discovered (out of 2)

Column GO: Whether or not participant discovered at least one 100% rule

- "0" = Did not discover at least one 100% rule

- "1" = Discovered at least one 100% rule

Column GP: Whether or not participant discovered at least one 75% rule

- "0" = Did not discover at least one 75% rule

- "1" = Discovered at least one 75% rule

Column HW: Amount of self-reported explanation on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Column HX: Amount of self-reported pairwise comparison on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")

Column HY: Amount of self-reported group comparison on a 1-7 scale (1 = "not at all," 4 = "some of the time," 7 = "all of the time")