Three\_way\_interactions

2024-06-21

## R Markdown

library(flextable)  
library(tidyverse)

## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──  
## ✔ dplyr 1.1.4 ✔ readr 2.1.5  
## ✔ forcats 1.0.0 ✔ stringr 1.5.1  
## ✔ ggplot2 3.5.1 ✔ tibble 3.2.1  
## ✔ lubridate 1.9.3 ✔ tidyr 1.3.1  
## ✔ purrr 1.0.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ purrr::compose() masks flextable::compose()  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()  
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

tables = readRDS("~/Spatial-summation-and-lateral-inhibition/Analysis/tables/tables.RData")

tables[[1]]%>%   
 set\_caption(caption = " ") %>% #this is above the table  
 add\_footer\_lines("Table S4, Quality, Distance and Task effects on Response times") #this is below

| **Response time~ Distance\*Quality\*Task+Trial\_n+random(ID), Gamma(link = log)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **parameter** | **contrast** | **β** | **SE** | **t** | **p** |
| μ | (Intercept) | -0.18 | 0.027 | -6.8 | 1.3e-11 |
| μ | Distance | -0.027 | 0.014 | -2 | 0.047 |
| μ | Quality(Warm) | 0.69 | 0.033 | 21 | 1.4e-91 |
| μ | Task(Target) | 1.2 | 0.027 | 44 | 0 |
| μ | Trial\_n | 6.9e-05 | 6.5e-05 | 1.1 | 0.29 |
| μ | Distance: Quality(Warm) | 0.017 | 0.017 | 1 | 0.31 |
| μ | Distance:Task(Target) | 0.026 | 0.014 | 1.9 | 0.064 |
| μ | Quality(Warm): Task(Target) | -0.65 | 0.034 | -19 | 7e-79 |
| μ | Distance: Quality(Warm): Task(Target) | -0.021 | 0.018 | -1.2 | 0.23 |
| σ | (Intercept) | -0.72 | 0.043 | -17 | 6.6e-61 |
| σ | Distance | -0.03 | 0.02 | -1.5 | 0.14 |
| σ | Quality(Warm) | -0.31 | 0.054 | -5.8 | 6.9e-09 |
| σ | Task(Target) | -1.6 | 0.054 | -30 | 1.2e-172 |
| σ | Trial\_n | 0.0002 | 0.00034 | 0.6 | 0.55 |
| σ | Distance: Quality(Warm) | 0.00037 | 0.029 | 0.013 | 0.99 |
| σ | Distance: Task(Target) | -0.0085 | 0.029 | -0.29 | 0.77 |
| σ | Quality(Warm): Task(Target) | 0.51 | 0.077 | 6.6 | 3.5e-11 |
| σ | Distance: Quality(Warm): Task(Target) | 0.013 | 0.041 | 0.31 | 0.75 |
| Table S4, Quality, Distance and Task effects on Response times | | | | | |

| **Rating~task\*Quality\*Distance+Task\*Response time+ Trial\_n +random(ID),ZIB(link = logit)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **parameter** | **contrast** | **β** | **SE** | **t** | **p** |
| μ | (Intercept) | -1.4 | 0.049 | -28 | 2.3e-160 |
| μ | Task(Target) | 1.6 | 0.16 | 10 | 9.1e-24 |
| μ | Quality(Warm) | -0.82 | 0.062 | -13 | 3.2e-39 |
| μ | Distance | -0.00079 | 0.021 | -0.039 | 0.97 |
| μ | Response time | 0.56 | 0.026 | 21 | 1.3e-95 |
| μ | Trial\_n | -0.0007 | 0.00035 | -2 | 0.043 |
| μ | Task(Target): Quality(Warm) | 0.26 | 0.084 | 3.1 | 0.0022 |
| μ | Task(Target): Distance | 0.044 | 0.03 | 1.5 | 0.14 |
| μ | Quality(Warm): Distance | 0.016 | 0.03 | 0.52 | 0.6 |
| μ | Task(Target): Response time | -0.8 | 0.059 | -14 | 2.9e-41 |
| μ | Task(Target): Quality(Warm): Distance | 0.0043 | 0.043 | 0.1 | 0.92 |
| σ | (Intercept) | -1.1 | 0.063 | -17 | 7.3e-61 |
| σ | Task(Target) | 0.008 | 0.18 | 0.044 | 0.97 |
| σ | Quality(Warm) | -0.089 | 0.077 | -1.2 | 0.25 |
| σ | Distance | 0.01 | 0.026 | 0.4 | 0.69 |
| σ | Response time | 0.19 | 0.034 | 5.5 | 3.1e-08 |
| σ | Trial\_n | 2e-05 | 0.00044 | 0.045 | 0.96 |
| σ | Task(Target): Quality(Warm) | -0.039 | 0.11 | -0.37 | 0.71 |
| σ | Task(Target): Distance | 0.0074 | 0.037 | 0.2 | 0.84 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| σ | Quality(Warm): Distance | -0.061 | 0.037 | -1.6 | 0.1 |
| σ | Task(Target): Response time | -0.067 | 0.07 | -0.96 | 0.34 |
| σ | Task(Target): Quality(Warm): Distance | 0.07 | 0.053 | 1.3 | 0.19 |
| ν | (Intercept) | -7.2 | 0.69 | -10 | 3.6e-25 |
| ν | Task(Target) | -6 | 1.6 | -3.8 | 0.00015 |
| ν | Quality(Warm) | 3.5 | 0.76 | 4.6 | 3.7e-06 |
| ν | Distance | 0.23 | 0.28 | 0.83 | 0.41 |
| ν | Response time | -0.94 | 0.37 | -2.6 | 0.01 |
| ν | Trial\_n | 0.0097 | 0.0037 | 2.6 | 0.0092 |
| ν | Task(Target): Quality(Warm) | -3.4 | 0.94 | -3.6 | 0.00035 |
| ν | Task(Target): Distance | -0.4 | 0.35 | -1.1 | 0.25 |
| ν | Quality(Warm): Distance | -0.6 | 0.36 | -1.7 | 0.094 |
| ν | Task(Target): Response time | 3.3 | 0.62 | 5.2 | 1.9e-07 |
| ν | Task(Target): Quality(Warm): Distance | 0.8 | 0.47 | 1.7 | 0.088 |

| **Response time~log(Area)\*Quality\*Task+Trial\_n+random(ID), Gamma(link = log)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **parameter** | **contrast** | **β** | **SE** | **t** | **p** |
| μ | (Intercept) | 0.093 | 0.03 | 3.1 | 0.0019 |
| μ | log(Area) | -0.26 | 0.027 | -9.7 | 3.6e-22 |
| μ | Quality(Warm) | 0.64 | 0.038 | 17 | 2.7e-61 |
| μ | Task(Target) | 0.96 | 0.031 | 32 | 4.2e-197 |
| μ | Trial\_n | -8.9e-05 | 4.6e-05 | -1.9 | 0.055 |
| μ | log(Area): Quality(Warm) | 0.078 | 0.034 | 2.3 | 0.021 |
| μ | log(Area): Task(Target) | 0.24 | 0.027 | 8.7 | 4e-18 |
| μ | Quality(Warm): Task(Target) | -0.57 | 0.04 | -14 | 7.1e-46 |
| μ | log(Area): Quality(Warm): Task(Target) | -0.13 | 0.035 | -3.6 | 0.00035 |
| σ | (Intercept) | -0.61 | 0.044 | -14 | 5.5e-43 |
| σ | log(Area) | -0.0097 | 0.036 | -0.27 | 0.79 |
| σ | Quality(Warm) | -0.2 | 0.056 | -3.6 | 0.0003 |
| σ | Task(Target) | -1.5 | 0.056 | -27 | 8.7e-147 |
| σ | Trial\_n | -0.0002 | 0.00024 | -0.85 | 0.4 |
| σ | log(Area): Quality(Warm) | -0.061 | 0.05 | -1.2 | 0.22 |
| σ | log(Area): Task(Target) | -0.19 | 0.05 | -3.8 | 0.00012 |
| σ | Quality(Warm): Task(Target) | 0.54 | 0.08 | 6.7 | 1.7e-11 |
| σ | log(Area): Quality(Warm): Task(Target) | -0.14 | 0.072 | -1.9 | 0.052 |
| Table S2, Quality, Area and Task effects on Response times | | | | | |

| **Rating~task \* Quality \* log(Area) + Task \* Response time+ Trial\_n + random(ID), ZIB(link = logit)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **parameter** | **contrast** | **β** | **SE** | **t** | **p** |
| μ | (Intercept) | -1.5 | 0.055 | -28 | 6.5e-154 |
| μ | Task(Target) | 1.5 | 0.14 | 11 | 2.2e-27 |
| μ | Quality(Warm) | -0.51 | 0.068 | -7.5 | 5.7e-14 |
| μ | log(Area) | 0.47 | 0.04 | 12 | 9.1e-32 |
| μ | Response time | 0.42 | 0.022 | 19 | 7e-79 |
| μ | Trial\_n | -0.0022 | 0.00025 | -8.8 | 1.9e-18 |
| μ | Task(Target): Quality(Warm) | -0.083 | 0.096 | -0.87 | 0.39 |
| μ | Task(Target): log(Area) | 0.085 | 0.055 | 1.5 | 0.12 |
| μ | Quality(Warm): log(Area) | -0.18 | 0.056 | -3.2 | 0.0012 |
| μ | Task(Target): Response time | -0.74 | 0.048 | -15 | 2.3e-51 |
| μ | Task(Target): Quality(Warm): log(Area) | 0.26 | 0.08 | 3.2 | 0.0012 |
| σ | (Intercept) | -0.84 | 0.062 | -14 | 5.8e-41 |
| σ | Task(Target) | -0.2 | 0.084 | -2.4 | 0.016 |
| σ | Quality(Warm) | -0.14 | 0.079 | -1.8 | 0.079 |
| σ | log(Area) | 0.087 | 0.047 | 1.9 | 0.061 |
| σ | Response time | 0.12 | 0.024 | 5.1 | 3e-07 |
| σ | Trial\_n | -0.0013 | 0.0003 | -4.3 | 1.6e-05 |
| σ | Task(Target): Quality(Warm) | 0.17 | 0.11 | 1.6 | 0.11 |
| σ | Task(Target): log(Area) | -0.027 | 0.065 | -0.41 | 0.68 |
| σ | Quality(Warm): log(Area) | -0.13 | 0.066 | -2 | 0.047 |
| σ | Task(Target): Quality(Warm): log(Area) | 0.01 | 0.093 | 0.11 | 0.91 |
| ν | (Intercept) | -6.1 | 0.68 | -9.1 | 1.8e-19 |
| ν | Task(Target) | 0.95 | 0.79 | 1.2 | 0.23 |
| ν | Quality(Warm) | 2.4 | 0.67 | 3.6 | 0.00028 |
| ν | log(Area) | -0.69 | 0.59 | -1.2 | 0.24 |
| ν | Response time | 0.12 | 0.21 | 0.57 | 0.57 |
| ν | Trial\_n | 0.0017 | 0.003 | 0.56 | 0.58 |
| ν | Task(Target): Quality(Warm) | -0.61 | 0.86 | -0.7 | 0.48 |
| ν | Task(Target): log(Area) | -1 | 0.79 | -1.3 | 0.2 |
| ν | Quality(Warm): log(Area) | -0.65 | 0.68 | -0.96 | 0.34 |
| ν | Task(Target): Quality(Warm): log(Area) | -0.5 | 0.99 | -0.51 | 0.61 |
| Table S1, Quality, Area and Task effects on VAS-ratings | | | | | |