

Analysis Report for TJ_2025-05-02T16-21-34-745Z_data

Scatter Plots of Gaze Data (Red Ellipse Represents Center of Highest Concentration)

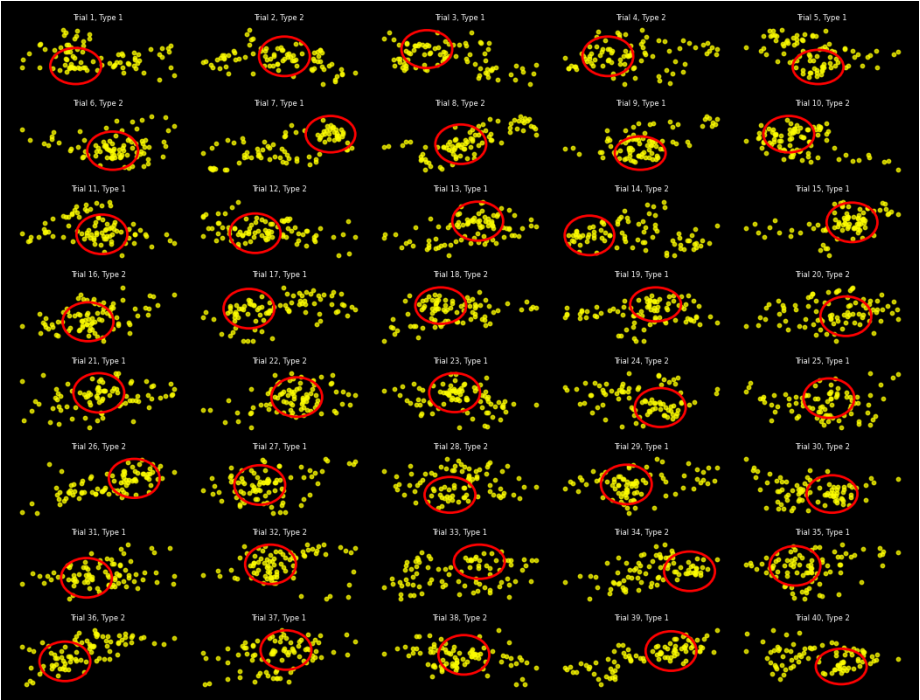


Figure 1: Scatter Plots

Violin Plot of Gaze Data

Descriptive Statistics for Gaze Percentages (Target vs Combined Non-Target Objects)

Measure	Target Object Gaze	Non-Target Objects Gaze
Mean	26.704292262213624	29.93702533138356
Standard Deviation	38.36832841087653	43.03743520665777
Median	1.7647058823529411	0.0
Min	0.0	0.0
Max	100.0	100.0

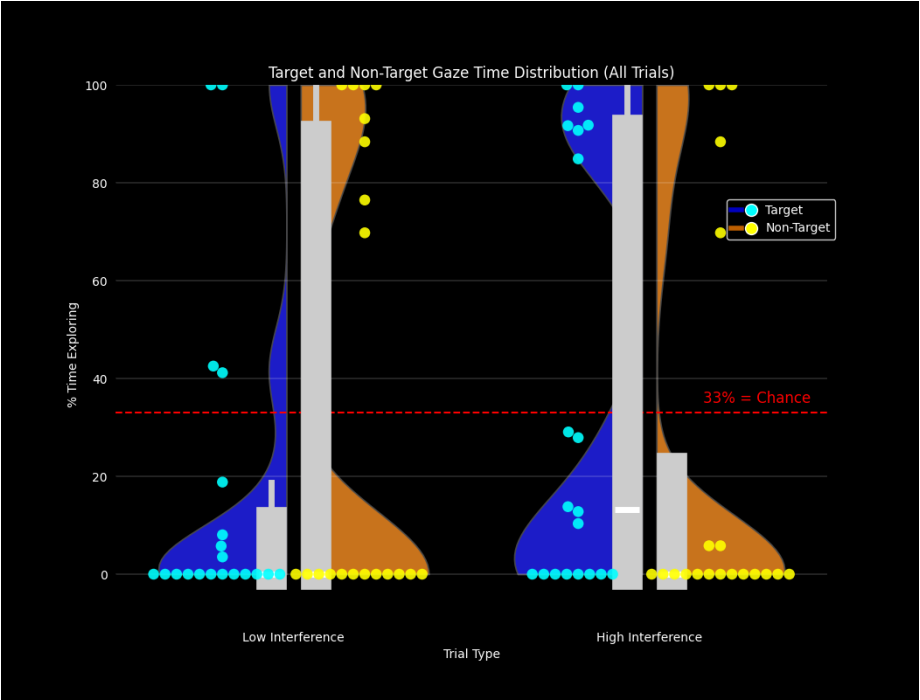


Figure 2: Violin Plot

Shapiro-Wilk Test for Normality

This test checks whether the data follows a normal distribution. It returns a test statistic and a p-value. A p-value less than 0.05 indicates that the data significantly deviates from a normal distribution.

Measure	W Statistic	p-value
Target Gaze	0.6791500255441383	0.000000
Non-Target Gaze	0.6376408875693584	0.000000

Levene's Test for Homoscedasticity

W Statistic	p-value
0.1260578674622862	0.723513

Wilcoxon Test (One-Sided; Target \geq 33%)

W Statistic	p-value
331.0	0.859551

Wilcoxon Test (Two-Sided; Target vs Non-Target)

W Statistic	p-value
272.0	0.878750

Difference: -3.23 ### T-Test (Two-Sided; Target vs Non-Target)

T-Statistic	Degrees of Freedom	p-value
-0.3501457135956901	78	0.727173

Difference: -3.23

ANOVA (Target Gaze Percentages across Trial Types)

F-Statistic	Degrees of Freedom (Between)	Degrees of Freedom (Within)	p-value
3.2121733316764463		38	0.081057

Executive Summary

This analysis examined the gaze data across different trial types to determine if there were significant differences in gaze behavior. The Shapiro-Wilk test for normality indicated that the target gaze data did not follow a normal distribution (p-value: 0.000000), while the non-target gaze data did not follow a normal distribution (p-value: 0.000000). Levene's test for homoscedasticity showed that the variances between target and non-target gaze data were equal (p-value: 0.723513).

The Wilcoxon signed-rank test revealed that the target gaze percentage was not significantly greater than 33% (p-value: 0.859551). Additionally, the Wilcoxon test comparing target and non-target gaze percentages indicated that there was no significant difference between the two conditions (p-value: 0.878750).

The independent t-test comparing target gaze percentages between Trial Type 1 and Trial Type 2 showed that there was no significant difference between the two trial types (p-value: 0.727173). Finally, the one-way ANOVA test indicated that the target gaze percentages across different trial types were not significantly different (p-value: 0.081057).

Overall, these results provide insights into the gaze behavior across different trial types, highlighting significant differences where applicable.