

4.3 RQ2: Personality Traits and Selection Preferences

Table 5 reports the chi-square tests assessing whether trait is associated with explanation type selection, with Holm-adjusted p-values across the five traits. Table 6 presents the Bonferroni-corrected pairwise comparisons between explanation types selection, and Table 7 summarizes which explanation types are most and least selected among participants in the High range based on standardized residuals.

Trait	χ^2	df	p	p_{adj}	Cramér's V	Sig.
Openness	3.134	5	0.67936	1.00000	0.095	ns
Conscientiousness	8.959	5	0.11072	0.55358	0.160	ns
Extraversion	4.318	5	0.50462	1.00000	0.111	ns
Agreeableness	1.535	5	0.90895	1.00000	0.066	ns
Neuroticism	5.619	5	0.34508	1.00000	0.127	ns

Note: Trait levels were defined as Low/Medium (< 15) vs. High (≥ 15) on a 20-point scale. Holm-adjusted p-values are reported across the five omnibus tests. ns = not significant.

Table 5. Chi-square tests of independence between trait and explanation type (Holm-adjusted across five tests)

Pair	χ^2	Raw p	Corrected p	Significant	Sig.
Conscientiousness vs Feature-Based	29.96	0.0000	0.0000	Yes	***
Conscientiousness vs Neuroticism	18.23	0.0000	0.0003	Yes	***
Feature-Based vs Openness	12.65	0.0004	0.0056	Yes	**
Extraversion vs Feature-Based	9.21	0.0024	0.0362	Yes	*
Agreeableness vs Conscientiousness	8.71	0.0032	0.0475	Yes	*
Agreeableness vs Feature-Based	6.38	0.0115	0.1728	No	ns
Extraversion vs Conscientiousness	5.97	0.0145	0.2182	No	ns
Neuroticism vs Openness	5.33	0.0210	0.3150	No	ns
Conscientiousness vs Openness	3.66	0.0559	0.8383	No	ns
Extraversion vs Agreeableness	0.17	0.6788	1.0000	No	ns
Extraversion vs Neuroticism	3.16	0.0755	1.0000	No	ns
Extraversion vs Openness	0.19	0.6669	1.0000	No	ns
Agreeableness vs Neuroticism	1.60	0.2061	1.0000	No	ns
Agreeableness vs Openness	0.90	0.3424	1.0000	No	ns
Feature-Based vs Neuroticism	1.38	0.2395	1.0000	No	ns

Note: Bonferroni-corrected p-values are reported. * $p_{corr} < .05$, ** $p_{corr} < .01$, *** $p_{corr} < .001$, ns = not significant.

Table 6. Pairwise chi-square comparisons between explanation types (Bonferroni-corrected)

Trait (High only)	Most preferred	Least preferred
Openness	Feature-based	Conscientiousness
Conscientiousness	Feature-based; Neuroticism	Conscientiousness
Extraversion	Feature-based	Conscientiousness
Agreeableness	Feature-based	Conscientiousness
Neuroticism	Neuroticism	Conscientiousness

Note: “Most preferred” and “Least preferred” indicate explanation types that occurred more or less often than expected among high scorers, based on standardized residuals. The threshold is $|\text{Std Residual}| \geq 2$.

Table 7. High scorers only ($\geq 15/20$): explanation types most and least represented (standardized residuals)