

4.4 RQ3: Perceived Persuasiveness, Quality, and Accuracy

To examine whether explanation types were perceived differently within each personality trait, we compared ratings across explanation types separately for participants in the High trait group (≥ 15 out of 20). For each trait, we ran Kruskal–Wallis tests for three constructs (Quality, Accuracy, and Persuasiveness). Holm-adjusted post-hoc pairwise results are reported only when the Kruskal–Wallis test was statistically significant.

Table 8 reports results for Quality, Table 9 reports results for Accuracy, and Table 10 reports results for Persuasiveness.

Trait (High only)	<i>H</i>	df	<i>p</i>	Significant post-hoc (Holm)
Openness	15.783	5	0.007	Conscientiousness vs Feature-based ($p = .025$); Conscientiousness vs Agreeableness ($p = .029$)
Conscientiousness	16.057	5	0.007	Conscientiousness vs Feature-based ($p = .020$)
Extraversion	11.977	5	0.035	–
Agreeableness	20.922	5	0.001	Conscientiousness vs Feature-based ($p = .008$); Conscientiousness vs Agreeableness ($p = .005$); Conscientiousness vs Neuroticism ($p = .011$); Conscientiousness vs Extraversion ($p = .013$)
Neuroticism	16.314	5	0.006	Conscientiousness vs Neuroticism ($p = .011$)

Note: Tests compare Quality ratings across the six explanation types within each High trait group. Holm-adjusted post-hoc pairwise results are reported only when the Kruskal–Wallis test was statistically significant; “–” indicates no significant post-hoc comparisons at $p < .05$ after adjustment.

Table 8. Kruskal–Wallis tests for Quality across explanation types (High trait group only; $\geq 15/20$)

Trait (High only)	<i>H</i>	df	<i>p</i>	Significant post-hoc (Holm)
Openness	22.517	5	0.000	Conscientiousness vs Neuroticism ($p = .006$); Conscientiousness vs Agreeableness ($p = .016$); Openness vs Neuroticism ($p = .036$); Conscientiousness vs Feature-based ($p = .043$)
Conscientiousness	21.323	5	0.001	Conscientiousness vs Neuroticism ($p = .003$); Openness vs Neuroticism ($p = .009$)
Extraversion	15.376	5	0.009	Feature-based vs Openness ($p = .041$)
Agreeableness	27.817	5	0.000	Conscientiousness vs Neuroticism ($p < .001$); Conscientiousness vs Feature-based ($p = .003$); Openness vs Neuroticism ($p = .012$); Conscientiousness vs Agreeableness ($p = .015$)
Neuroticism	17.258	5	0.004	Conscientiousness vs Neuroticism ($p = .010$)

Note: Tests compare Accuracy ratings across the six explanation types within each High trait group. Holm-adjusted post-hoc pairwise results are reported only when the Kruskal–Wallis test was statistically significant.

Table 9. Kruskal–Wallis tests for Accuracy across explanation types (High trait group only; $\geq 15/20$)

Trait (High only)	<i>H</i>	df	<i>p</i>	Significant post-hoc (Holm)
Openness	22.149	5	0.000	Conscientiousness vs Neuroticism ($p = .001$); Openness vs Neuroticism ($p = .012$); Conscientiousness vs Agreeableness ($p = .042$)
Conscientiousness	24.990	5	0.000	Openness vs Neuroticism ($p = .002$); Conscientiousness vs Neuroticism ($p = .002$); Openness vs Feature-based ($p = .046$); Conscientiousness vs Feature-based ($p = .047$)
Extraversion	16.201	5	0.006	Feature-based vs Openness ($p = .015$); Openness vs Extraversion ($p = .023$)
Agreeableness	26.515	5	0.000	Conscientiousness vs Neuroticism ($p < .001$); Openness vs Neuroticism ($p = .006$); Conscientiousness vs Feature-based ($p = .017$); Conscientiousness vs Agreeableness ($p = .045$)
Neuroticism	15.264	5	0.009	Conscientiousness vs Neuroticism ($p = .006$)

Note: Tests compare Persuasiveness ratings across the six explanation types within each High trait group. Holm-adjusted post-hoc pairwise results are reported only when the Kruskal–Wallis test was statistically significant.

Table 10. Kruskal–Wallis tests for Persuasiveness across explanation types (High trait group only; $\geq 15/20$)