The Perspective-Simulating Mind: How Internal Representations Shape Moral Judgment and Action – Supplementary Material

Supplementary Material

3.1.5 Reported open perspective answers

A small subset of participants provided open-text responses indicating that they did not imagine the scenario from either a first-person or a third-person viewpoint. In the switch scenario, this applied to n = 5 participants (6.8%) for the moral-acceptability question and n = 2 participants (2.7%) for the willingness-to-act question. These responses typically reflected abstract or principle-based reasoning or a detached observational stance that did not correspond to a clear visual viewpoint.

In the footbridge scenario, open responses were somewhat more frequent. For the moral-acceptability judgment, n = 7 participants (8.5%) reported no identifiable perspective, and for the willingness-to-act question, n = 10 participants (12.2%) did so. These responses often described nonvisual or mixed-perspective processing such as conceptual, symbolic, or evaluative reasoning or explicitly stated that no visual simulation was used. Across both dilemmas, such open responses were rare and heterogeneous. Because they represent meaningful deviations from visual-perspectival simulation rather than missing data, they were retained as a separate category in all analyses.

3.3.2 Differences regarding perspective and Moral Acceptability between cases

To examine whether the perspective participants used when evaluating the moral acceptability of the action differed between the switch and footbridge scenarios, a chi-square test of independence was conducted ($N = 144$). In the switch scenario, 38 of 69 participants (55.1%) reported imagining the judgment from an egocentric perspective, whereas 31 (44.9%) used a third-person perspective. A highly similar pattern emerged in the footbridge scenario, where 42 of 75 participants (56.0%) adopted an egocentric perspective and 33 (44.0%) responded from a third-person viewpoint.

The chi-square test revealed no association between scenario type and perspective choice, $\chi^2(1, N = 144) = 0.01$, p = .911, with a negligible effect, Cramér's V = .009. Bootstrapped effect-size estimates based on 5,000 resamples were consistent with this conclusion (Cramér's V = .009; 95%

percentile CI = [.002, .187], SE = .050). Equivalent values were observed for phi (–.009; 95% CI [–.171, .153]).

Taken together, the results indicate that scenario type did not influence whether participants adopted an egocentric or third-person perspective when evaluating the moral acceptability of the action. Perspective use in this judgment appears stable across dilemma contexts.

3.3.3 Differences regarding perspective and Willingness to Act between cases

To examine whether the perspective adopted when evaluating willingness to perform the action differed between the switch and footbridge scenarios, a chi-square test of independence was conducted ($N = 144$). In the switch scenario, 51 of 72 participants (70.8%) imagined the action from a first-person perspective and 21 (29.2%) from a third-person perspective. The footbridge scenario yielded a nearly identical pattern, with 49 of 72 participants (68.1%) using a first-person perspective and 23 (31.9%) adopting a third-person viewpoint.

The chi-square test indicated no significant association between scenario type and perspective choice for willingness to act, $\chi^2(1, N = 144) = 0.13$, $p = .717$, with a very small effect size, Cramér's V = .030. A bootstrap procedure with 5,000 resamples confirmed the robustness of this negligible effect, yielding a percentile confidence interval of [.003, .196], SE = .052. Comparable values were obtained for phi (.030; 95% CI [–.134, .193]).

Overall, these results indicate that participants did not differ in their chosen perspective for imagining the action across the switch and footbridge dilemmas. Perspective use during action simulation appears highly consistent across scenarios, even though the willingness to act itself differs dramatically between them.

Extended exploratory personality regression analysis for personality on decisions, perspectives and vividness

3.6 Exploratory Trait Analysis on Judgement, Action, Perspective and Vividness

3.6.1 Dark Triad & Decisions

Logistic Regression predicting Moral Acceptability in the Switch Case

To examine whether Dark Triad traits predicted whether participants judged the action in the switch scenario as morally acceptable, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 74$). The dependent variable was the binary judgment of moral acceptability (0 = "not acceptable," 1 = "acceptable"). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 1.42$, $p = .700$, indicating that the included predictors did not improve model fit relative to the null model. The model explained only a very small proportion of variance in moral acceptability judgments (Cox & Snell $R^2 = .019$; Nagelkerke $R^2 = .029$). Model fit was acceptable as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(8) = 5.74$, $p = .677$.

None of the Dark Triad traits emerged as significant predictors of moral acceptability judgments. Machiavellianism was not associated with the likelihood of endorsing the action as morally acceptable, $B = -0.16$, $SE = 0.51$, Wald $= 0.09$, $p = .760$, odds ratio (OR) $= 0.86$. Bootstrapped confidence intervals confirmed the absence of a reliable effect, 95% CI [-1.24, 0.84]. Likewise, narcissism ($B = 0.37$, $SE = 0.44$, Wald $= 0.70$, $p = .403$, OR $= 1.45$, 95% bootstrap CI [-0.55, 1.39]) and psychopathy ($B = -0.45$, $SE = 0.53$, Wald $= 0.70$, $p = .405$, OR $= 0.64$, 95% bootstrap CI [-1.70, 0.96]) did not significantly predict moral acceptability judgments.

In terms of classification performance, the model correctly classified 78.4% of cases; however, this reflected the base rate of acceptance in the sample, as the model consistently predicted acceptance and

failed to correctly classify any non-acceptance judgments. Thus, the model did not provide meaningful predictive improvement beyond the intercept-only solution.

Logistic Regression predicting Willingness to Act in the Switch Case

To examine whether Dark Triad traits predicted participants' willingness to act in the switch scenario, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 74$). The dependent variable was the binary willingness-to-act judgment (0 = "would not act," 1 = "would act"). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 2.55$, $p = .466$, indicating that the included predictors did not significantly improve model fit relative to the intercept-only solution. The model explained only a small proportion of variance in willingness-to-act judgments (Cox & Snell $R^2 = .034$; Nagelkerke $R^2 = .060$). Model fit was acceptable, as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(8) = 7.51$, $p = .483$.

None of the Dark Triad traits significantly predicted participants' willingness to act. Machiavellianism showed a negative but non-significant association with willingness to act, $B = -0.76$, $SE = 0.59$, Wald = 1.68, $p = .195$, odds ratio (OR) = 0.47. Bootstrap confidence intervals confirmed the absence of a reliable effect, 95% CI [−2.89, 0.63]. Narcissism was not associated with willingness to act, $B = 0.05$, $SE = 0.51$, Wald = 0.01, $p = .925$, OR = 1.05, with a 95% bootstrap CI of [−1.19, 1.72]. Similarly, psychopathy did not significantly predict willingness to act, $B = -0.14$, $SE = 0.62$, Wald = 0.05, $p = .828$, OR = 0.87, 95% bootstrap CI [−1.47, 1.27].

In terms of classification performance, the model correctly classified 85.1% of cases. However, this accuracy reflected the base rate of affirmative responses, as the model consistently predicted willingness to act and failed to correctly classify any non-action judgments. Thus, the inclusion of Dark Triad traits did not yield meaningful predictive improvement beyond the intercept-only model.

Logistic Regression Predicting Moral Acceptability in the Footbridge Case

To examine whether Dark Triad traits predicted whether participants judged the harmful action in the footbridge scenario as morally acceptable, a binary logistic regression was conducted on the subsample assigned to the footbridge case ($N = 82$). The dependent variable was the binary judgment of moral acceptability (0 = "not acceptable," 1 = "acceptable"). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model did not reach conventional levels of statistical significance, $\chi^2(3) = 5.52$, $p = .137$, although it explained a modest proportion of variance in moral acceptability judgments (Cox & Snell $R^2 = .065$; Nagelkerke $R^2 = .104$). Model fit was adequate, as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(8) = 8.95$, $p = .346$.

Machiavellianism emerged as a marginal predictor of moral acceptability judgments. Higher Machiavellianism scores were associated with an increased likelihood of judging the harmful action as morally acceptable, $B = 0.97$, $SE = 0.50$, Wald = 3.74, $p = .053$, odds ratio (OR) = 2.64. However, bootstrap analyses indicated that this effect was not robust, as the 95% confidence interval included zero, 95% CI [−0.24, 2.34]. Narcissism ($B = −0.23$, $SE = 0.53$, Wald = 0.19, $p = .666$, OR = 0.80, 95% bootstrap CI [−1.63, 1.00]) and psychopathy ($B = 0.32$, $SE = 0.66$, Wald = 0.24, $p = .622$, OR = 1.38, 95% bootstrap CI [−1.83, 1.94]) did not significantly predict moral acceptability judgments.

In terms of classification performance, the model correctly classified 82.9% of cases. This improvement over the intercept-only model reflected limited sensitivity to acceptance judgments: while 100% of non-acceptance judgments were correctly classified, only 12.5% of acceptance judgments were correctly identified. Thus, although classification accuracy exceeded the base rate, predictive performance for the less frequent response category remained limited.

Logistic Regression Predicting Willingness To Act in the Footbridge Case

To examine whether Dark Triad traits predicted participants' willingness to act in the footbridge scenario, a binary logistic regression was conducted on the subsample assigned to the footbridge case ($N = 82$). The dependent variable was the binary willingness-to-act judgment (0 = "would not push," 1 = "would push"). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were complemented by nonparametric bootstrapping with 5,000 resamples; however, due to the very low base rate of willingness to push (only 3 out of 82 participants), several bootstrap samples contained only one outcome category, resulting in unstable bootstrap estimates.

The overall model was not statistically significant, $\chi^2(3) = 4.82$, $p = .186$, indicating that the inclusion of Dark Triad traits did not reliably improve model fit relative to the intercept-only solution. The model accounted for a modest proportion of variance in willingness-to-act judgments (Cox & Snell R^2 = .057; Nagelkerke R^2 = .212). Model fit was acceptable according to the Hosmer–Lemeshow test, $\chi^2(8) = 3.42$, $p = .905$.

None of the Dark Triad traits emerged as statistically significant predictors of willingness to push. Machiavellianism showed no meaningful association with willingness to act, $B = 0.23$, $SE = 0.91$, Wald = 0.06, $p = .801$, odds ratio (OR) = 1.26, 95% CI [0.21, 7.40]. Narcissism was likewise non-significant, $B = -1.34$, $SE = 1.17$, Wald = 1.30, $p = .255$, OR = 0.26, 95% CI [0.03, 2.62]. Psychopathy showed a positive but non-significant trend, $B = 2.79$, $SE = 1.51$, Wald = 3.43, $p = .064$, OR = 16.25, with a very wide confidence interval, 95% CI [0.85, 310.24], reflecting substantial uncertainty in the effect estimate. Bootstrap-based confidence intervals were extremely wide and unstable due to the sparsity of "push" responses and are therefore not interpreted as robust evidence.

In terms of classification performance, the model correctly classified 96.3% of cases. However, this accuracy merely reflected the extreme base rate (79 out of 82 participants indicating that they would not push): the model correctly identified all non-action responses (100%) but failed to correctly classify any instances of willingness to push (0%). Thus, the inclusion of Dark Triad traits did not

yield any practically useful predictive improvement over the intercept-only model for willingness to act in the footbridge scenario.

3.6.1 Dark Triad & Simulated Perspective

Logistic Regression predicting Perspective for Moral Acceptability in the Switch Case

To examine whether Dark Triad traits predicted the imagined perspective following the moral acceptability question in the switch scenario, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 69$). The dependent variable was the imagined perspective (0 = first-person perspective, 1 = third-person perspective). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 4.74$, $p = .192$, indicating that the three Dark Triad traits did not reliably improve prediction of imagined perspective relative to the intercept-only model. The model explained a small proportion of variance in perspective reports (Cox & Snell $R^2 = .066$; Nagelkerke $R^2 = .089$). Model fit was adequate according to the Hosmer–Lemeshow test, $\chi^2(8) = 6.05$, $p = .642$.

None of the Dark Triad traits significantly predicted whether participants reported a first-person versus third-person perspective. Machiavellianism was associated with a non-significant decrease in the odds of reporting a third-person perspective, $B = -0.46$, $SE = 0.45$, Wald $= 1.03$, $p = .309$, odds ratio (OR) = 0.63, with a bootstrapped 95% confidence interval for the coefficient spanning zero, 95% CI [−1.68, 0.53]. Narcissism showed a similarly non-significant association, $B = -0.24$, $SE = 0.36$, Wald $= 0.44$, $p = .506$, OR = 0.79, 95% bootstrap CI [−1.09, 0.60], as did psychopathy, $B = -0.62$, $SE = 0.54$, Wald $= 1.32$, $p = .251$, OR = 0.54, 95% bootstrap CI [−2.24, 0.45].

In terms of classification performance, the model correctly classified 58.0% of cases (73.7% of first-person reports and 38.7% of third-person reports), a slight improvement over the intercept-only model

(55.1% correct). However, given the non-significant overall model and the non-robust coefficients, these differences should not be interpreted as evidence for a systematic link between Dark Triad traits and imagined perspective in the switch scenario.

Logistic Regression predicting Perspective for Willingness To Act in the Switch Case

To examine whether Dark Triad traits predicted the imagined perspective following the willingness-to-act question in the switch scenario, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 72$). The dependent variable was the reported imagined perspective (0 = first-person perspective, 1 = third-person perspective). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 1.94$, $p = .585$, indicating that the included predictors did not improve prediction of imagined perspective beyond the intercept-only model. The model accounted for only a small proportion of variance in perspective reports (Cox & Snell R^2 = .027; Nagelkerke R^2 = .038). Model fit was acceptable, as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(8) = 6.71$, $p = .568$.

None of the Dark Triad traits significantly predicted whether participants reported a first-person versus third-person perspective. Machiavellianism showed a non-significant negative association with reporting a third-person perspective, $B = -0.58$, $SE = 0.48$, Wald = 1.46, $p = .226$, odds ratio (OR) = 0.56, with a bootstrapped 95% confidence interval that included zero, 95% CI [−1.82, 0.36]. Narcissism was unrelated to imagined perspective, $B = 0.06$, $SE = 0.38$, Wald = 0.02, $p = .879$, OR = 1.06, 95% bootstrap CI [−0.69, 0.96]. Psychopathy likewise did not significantly predict imagined perspective, $B = 0.53$, $SE = 0.50$, Wald = 1.14, $p = .286$, OR = 1.71, 95% bootstrap CI [−0.72, 1.74].

In terms of classification performance, the model correctly classified 70.8% of cases; however, this reflected the base rate of first-person perspective reports in the sample. The model consistently

predicted a first-person perspective and failed to correctly classify any third-person perspective responses, indicating no meaningful predictive improvement over the intercept-only solution.

Logistic Regression predicting Perspective for Moral Acceptability in the Footbridge Case

To examine whether Dark Triad traits predicted the imagined perspective following the moral acceptability judgment in the footbridge scenario, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 75$). The dependent variable was the reported imagined perspective (0 = first-person perspective, 1 = third-person perspective). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 1.39$, $p = .707$, indicating that the inclusion of Dark Triad traits did not improve prediction of imagined perspective beyond the intercept-only model. The model explained only a very small proportion of variance in perspective reports (Cox & Snell $R^2 = .018$; Nagelkerke $R^2 = .025$). Model fit was adequate, as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(7) = 6.57$, $p = .475$.

None of the Dark Triad traits significantly predicted whether participants reported a first-person versus third-person perspective. Machiavellianism showed a non-significant positive association with reporting a third-person perspective, $B = 0.49$, $SE = 0.43$, Wald = 1.27, $p = .259$, odds ratio (OR) = 1.63, with a bootstrapped 95% confidence interval that included zero, 95% CI [−0.43, 1.75]. Narcissism was not associated with imagined perspective, $B = −0.18$, $SE = 0.45$, Wald = 0.16, $p = .687$, OR = 0.84, 95% bootstrap CI [−1.36, 0.80], and psychopathy likewise showed no reliable effect, $B = −0.27$, $SE = 0.54$, Wald = 0.25, $p = .619$, OR = 0.77, 95% bootstrap CI [−1.67, 0.90].

In terms of classification performance, the model correctly classified 58.7% of cases. While prediction accuracy for first-person reports was high (90.5%), accuracy for third-person reports was low (18.2%), indicating that the apparent overall accuracy largely reflected the base rate of first-person perspective

responses. Thus, the results provide no evidence for a systematic association between Dark Triad traits and imagined perspective following moral acceptability judgments in the switch scenario.

Logistic Regression predicting Perspective for Willingness To Act in the Footbridge Case

To examine whether Dark Triad traits predicted the imagined perspective following the willingness-to-act judgment in the footbridge scenario, a binary logistic regression was conducted on the subsample assigned to the footbridge case ($N = 72$). The dependent variable was the reported imagined perspective (0 = first-person perspective, 1 = third-person perspective). Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. Parameter estimates were supplemented by nonparametric bootstrapping with 5,000 resamples to obtain robust 95% confidence intervals.

The overall model was not statistically significant, $\chi^2(3) = 0.58$, $p = .901$, indicating that the Dark Triad traits did not improve prediction of imagined perspective beyond the intercept-only model. The model explained a negligible proportion of variance in perspective reports (Cox & Snell $R^2 = .008$; Nagelkerke $R^2 = .011$). Model fit was adequate, as indicated by a non-significant Hosmer–Lemeshow test, $\chi^2(8) = 9.17$, $p = .328$.

None of the Dark Triad traits significantly predicted whether participants reported a first-person versus third-person perspective. Machiavellianism showed no meaningful association with imagined perspective, $B = 0.05$, $SE = 0.46$, Wald $= 0.01$, $p = .919$, odds ratio (OR) $= 1.05$, with a bootstrapped 95% confidence interval that included zero, 95% CI [−1.05, 1.15]. Narcissism was also unrelated to imagined perspective, $B = −0.35$, $SE = 0.46$, Wald $= 0.57$, $p = .449$, OR $= 0.71$, 95% bootstrap CI [−1.53, 0.67], and psychopathy likewise showed no reliable effect, $B = 0.13$, $SE = 0.60$, Wald $= 0.05$, $p = .829$, OR $= 1.14$, 95% bootstrap CI [−1.30, 1.54].

In terms of classification performance, the model correctly classified 68.1% of cases. However, this reflected the base rate of first-person perspective reports in the sample: the model consistently

predicted a first-person perspective and failed to correctly classify any third-person perspective responses. Thus, the results provide no evidence for a systematic association between Dark Triad traits and imagined perspective following willingness-to-act judgments in the footbridge scenario.

Dark Triad Predictors of Vividness of Imagining Moral Acceptability in the Switch Scenario

To examine whether Dark Triad traits predicted the vividness of mental imagery associated with moral acceptability judgments in the switch scenario, a multiple linear regression analysis was conducted on the subsample assigned to the switch case ($N = 55$). The dependent variable was self-reported vividness of imagining the moral acceptability judgment. Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. To obtain robust estimates, nonparametric bootstrapping with 5,000 resamples was applied to all regression coefficients and confidence intervals.

The overall regression model was not statistically significant, $F(3, 51) = 1.07$, $p = .369$, indicating that Dark Triad traits did not reliably predict imagery vividness in this condition. The model accounted for a small proportion of variance in vividness ratings ($R^2 = .059$), with the adjusted R^2 close to zero (adjusted $R^2 = .004$). The Durbin–Watson statistic suggested no substantial autocorrelation in the residuals (DW = 1.81).

None of the individual predictors reached statistical significance. Machiavellianism was not associated with vividness, $B = -0.31$, $SE = 0.50$, $\beta = -.09$, $t = -0.63$, $p = .530$, with a bootstrapped 95% confidence interval that included zero, 95% CI [-1.41, 0.73]. Narcissism showed a positive but non-significant association with vividness, $B = 0.59$, $SE = 0.36$, $\beta = .22$, $t = 1.61$, $p = .114$, 95% bootstrap CI [-0.21, 1.34]. Psychopathy was likewise unrelated to vividness, $B = 0.22$, $SE = 0.52$, $\beta = .06$, $t = 0.43$, $p = .667$, 95% bootstrap CI [-0.89, 1.21].

Collinearity diagnostics indicated no multicollinearity concerns (all VIFs ≤ 1.15), and inspection of residuals suggested no major deviations from model assumptions. Overall, these results provide no

evidence that Dark Triad traits are systematically related to the vividness of imagined moral acceptability judgments in the switch scenario.

Dark Triad Predictors of Action Vividness in the Switch Scenario

To test whether Dark Triad traits predicted the vividness of imagined action in the switch scenario, a multiple linear regression analysis was conducted on participants assigned to the switch case who provided vividness ratings for their own action ($N = 67$). Action vividness served as the dependent variable, and Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. As in the previous analyses, nonparametric bootstrapping with 5,000 resamples was applied to obtain robust confidence intervals and significance estimates.

The overall regression model showed a trend-level association with action vividness but did not reach conventional levels of statistical significance, $F(3, 63) = 2.25, p = .091$. The model explained approximately 9.7% of the variance in action vividness ($R^2 = .097$), with an adjusted R^2 of .054. Residual diagnostics indicated no substantial autocorrelation (Durbin–Watson = 1.87), and variance inflation factors suggested no multicollinearity concerns (all VIFs ≤ 1.33).

None of the individual Dark Triad traits emerged as statistically significant predictors, although effect sizes were consistently larger than in the moral-acceptability vividness model. Machiavellianism showed a negative, non-significant association with action vividness, $B = -0.49, SE = 0.32, \beta = -.21, t = -1.53, p = .130$, with a bootstrapped 95% confidence interval that included zero, 95% CI [−1.15, 0.15]. Narcissism was positively but non-significantly related to vividness, $B = 0.42, SE = 0.26, \beta = .21, t = 1.61, p = .113$, 95% bootstrap CI [−0.12, 1.03]. Psychopathy also showed a positive, non-significant association, $B = 0.53, SE = 0.33, \beta = .22, t = 1.60, p = .114$, 95% bootstrap CI [−0.10, 1.26].

Overall, while Dark Triad traits did not significantly predict the vividness with which participants imagined their own action in the switch case, the pattern of coefficients suggests a weak, non-significant tendency toward higher action vividness with increasing narcissism and psychopathy and

lower vividness with higher Machiavellianism. Compared to the vividness of moral acceptability judgments, action vividness showed slightly stronger—but still inconclusive—associations with personality traits, warranting cautious interpretation.

Dark Triad Predictors of Vividness of Imagining Moral Acceptability in the Footbridge Scenario

To examine whether Dark Triad traits predicted the vividness of moral acceptability judgments in the footbridge scenario, a multiple linear regression analysis was conducted including participants assigned to the footbridge case who provided vividness ratings ($N = 65$). Vividness of moral acceptability served as the dependent variable, and Machiavellianism, narcissism, and psychopathy were entered simultaneously using the enter method. As in the previous analyses, nonparametric bootstrapping with 5,000 resamples was used to obtain robust confidence intervals and significance estimates.

The overall regression model was not significant, $F(3, 61) = 0.87$, $p = .461$, explaining only a small proportion of variance in vividness ratings ($R^2 = .041$, adjusted $R^2 = -.006$). The Durbin–Watson statistic indicated no problematic autocorrelation of residuals (DW = 1.80), and collinearity diagnostics showed acceptable tolerance and VIF values (all VIFs ≤ 1.23), suggesting that multicollinearity did not affect parameter estimates.

None of the individual Dark Triad traits significantly predicted the vividness with which participants imagined the moral acceptability of pushing the person in the footbridge case. Machiavellianism showed a small negative association with vividness, $B = -0.35$, $SE = 0.44$, $\beta = -.11$, $t = -0.79$, $p = .432$, with a bootstrapped 95% confidence interval including zero, 95% CI [−1.15, 0.49]. Narcissism was positively but non-significantly related to vividness, $B = 0.44$, $SE = 0.45$, $\beta = .13$, $t = 1.00$, $p = .322$, 95% bootstrap CI [−0.50, 1.27]. Psychopathy likewise showed a positive but non-significant association, $B = 0.56$, $SE = 0.55$, $\beta = .14$, $t = 1.03$, $p = .307$, 95% bootstrap CI [−0.53, 1.53].

In sum, Dark Triad traits did not meaningfully predict the vividness of moral acceptability judgments in the footbridge case. Compared to the switch scenario, effect sizes were even smaller, and the model

explained virtually no variance beyond chance, suggesting that vividness of moral evaluation in the highly aversive footbridge dilemma is largely independent of Dark Triad personality traits in this sample.

Dark Triad Predictors of Action Vividness in the Footbridge Scenario

To examine whether Dark Triad traits predicted the vividness of imagined action (action vividness) in the footbridge scenario, a multiple linear regression analysis was conducted on participants assigned to the footbridge case who provided vividness ratings ($N = 79$). Action vividness served as the dependent variable, with Machiavellianism, narcissism, and psychopathy entered simultaneously using the enter method. To ensure robustness of inference given the sample size and distributional uncertainty, nonparametric bootstrapping with 5,000 resamples was applied to all parameter estimates.

The overall regression model was statistically significant, $F(3, 75) = 4.31$, $p = .007$, accounting for a meaningful proportion of variance in action vividness ($R^2 = .147$, adjusted $R^2 = .113$). The Durbin–Watson statistic indicated no problematic autocorrelation of residuals (DW = 1.63), and collinearity diagnostics were within acceptable limits (all VIFs ≤ 1.33), suggesting stable coefficient estimation.

At the level of individual predictors, Machiavellianism emerged as a significant negative predictor of action vividness. Higher Machiavellianism scores were associated with less vivid imagined action, $B = -0.82$, $SE = 0.27$, $\beta = -.37$, $t = -3.08$, $p = .003$. This effect was robust under bootstrapping, with a 95% confidence interval excluding zero, 95% CI [-1.25, -0.33].

Psychopathy, in contrast, showed a significant positive association with action vividness. Higher psychopathy scores predicted more vivid imagination of performing the harmful action, $B = 0.80$, $SE = 0.34$, $\beta = .29$, $t = 2.36$, $p = .021$, with the bootstrapped confidence interval again excluding zero, 95% CI [0.27, 1.29].

Narcissism did not significantly predict action vividness, $B = 0.35$, $SE = 0.27$, $\beta = .15$, $t = 1.27$, $p = .209$, and its bootstrapped confidence interval included zero, 95% CI [-0.22, 0.87].

In sum, unlike moral-acceptability vividness, action vividness in the footbridge case was systematically related to Dark Triad traits. Specifically, higher psychopathy was associated with enhanced vividness of imagined harmful action, whereas higher Machiavellianism was associated with reduced action vividness. This pattern suggests a differentiated role of Dark Triad dimensions in the embodied simulation of morally aversive actions, with psychopathy linked to intensified action imagery and Machiavellianism to a relative dampening of such simulation.

3.6.2 HEXACO

In all four conducted multiple binary logistic regression analyses with HEXACO traits serving as predictors for the decisions, key assumptions were systematically evaluated. Multicollinearity was not a concern in any of the models: all tolerance values exceeded the critical threshold of .1, and all variance inflation factor (VIF) values remained well below 10, indicating low intercorrelations among the predictors. The linearity of the logit assumption was tested using interaction terms between each predictor and its natural logarithm. None of these interaction terms were statistically significant in most models, confirming that the assumption was met. However, a quadratic term for Emotionality was included and found to be statistically significant ($p = .024$), indicating a nonlinear relationship between Emotionality and moral acceptance of flipping the switch. Also, Agreeableness was included as quadratic term in the model for willingness to act in the switch case model and found to be a significant predictor ($p = .037$), indicating a nonlinear relationship between Agreeableness and willingness to flip the switch. All final models were bootstrapped with 5000 resamples producing 95% confidence intervals

HEXACO Predictors of Moral Acceptability in the Switch Scenario

To examine whether HEXACO personality traits predicted judgments of moral acceptability in the switch scenario, a binary logistic regression was conducted on the subsample assigned to the switch case ($N = 74$). The dependent variable was the binary moral acceptability judgment (0 = *not*

acceptable, 1 = *acceptable*). Honesty–Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness were entered simultaneously as predictors. Because the linearity-of-the-logit assumption was violated for Emotionality, a quadratic Emotionality term (Emotionality^2) was additionally included in the model. Inference was based on nonparametric bootstrapping with 5,000 resamples using percentile confidence intervals.

The overall model was not statistically significant, $\chi^2(7) = 7.25$, $p = .403$. Model fit was acceptable as indicated by the Hosmer–Lemeshow test, $\chi^2(8) = 9.96$, $p = .268$. The model accounted for a modest proportion of variance in moral acceptability judgments (Cox & Snell $R^2 = .093$; Nagelkerke $R^2 = .144$) and correctly classified 79.7% of cases. However, this classification accuracy largely reflected the strong base rate of accepting the switch action in the sample rather than meaningful predictive discrimination.

At the level of individual predictors, none of the HEXACO dimensions significantly predicted moral acceptability of switching the trolley. Honesty–Humility showed a small, non-significant positive association with acceptance ($B = 0.33$, $SE = 0.48$, $p = .485$, OR = 1.40), with a bootstrapped 95% confidence interval including zero, 95% CI [−1.02, 1.82]. Extraversion ($B = 0.14$, $p = .765$), Agreeableness ($B = −0.29$, $p = .588$), Conscientiousness ($B = 0.02$, $p = .968$), and Openness ($B = −0.15$, $p = .779$) likewise showed no meaningful effects, and all corresponding bootstrap confidence intervals spanned zero.

Importantly, although Emotionality and its quadratic term showed indications of association in preliminary (block 0) tests, neither the linear Emotionality term ($B = −3.52$, $SE = 4.42$, $p = .425$) nor the quadratic term ($B = 0.35$, $SE = 0.64$, $p = .582$) reached significance in the full model. Bootstrapped confidence intervals for both effects were wide and included zero, indicating substantial uncertainty and no reliable nonlinear relationship between Emotionality and moral acceptability judgments in this scenario.

In sum, HEXACO personality traits including a nonlinear specification of Emotionality did not reliably predict moral acceptability judgments in the switch case. In sum, HEXACO personality traits including a nonlinear specification of Emotionality did not reliably predict moral acceptability

judgments in the switch case. Moral acceptance of the action was not systematically associated with any of the HEXACO dimensions, and the inclusion of a quadratic Emotionality term did not yield evidence for a meaningful nonlinear relationship within this sample.

HEXACO Predictors of Willingness To Act in the Switch Scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict willingness to act in the switch case, with willingness to pull the switch coded as a binary outcome (0 = no, 1 = yes). Because the linearity assumption in the logit was violated for Agreeableness, a quadratic Agreeableness term was included. Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(7) = 8.33$, $p = .305$. Explained variance was modest, with Cox & Snell $R^2 = .106$ and Nagelkerke $R^2 = .187$. Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 6.38$, $p = .604$.

None of the linear HEXACO dimensions showed a statistically significant association with willingness to act. Specifically, effects were nonsignificant for Honesty–Humility ($B = -0.46$, SE = 0.58, $p = .432$, OR = 0.63, 95% CI [0.20, 1.98]), Emotionality ($B = -0.05$, SE = 0.55, $p = .932$, OR = 0.95, 95% CI [0.33, 2.79]), Extraversion ($B = -0.28$, SE = 0.57, $p = .625$, OR = 0.76, 95% CI [0.25, 2.31]), Conscientiousness ($B = -0.38$, SE = 0.53, $p = .476$, OR = 0.69, 95% CI [0.24, 1.93]), and Openness ($B = 0.92$, SE = 0.67, $p = .169$, OR = 2.51, 95% CI [0.68, 9.30]).

Agreeableness did not exhibit a reliable effect either in its linear form ($B = -0.42$, SE = 6.57, $p = .949$, OR = 0.66) or when modeled as a quadratic term ($B = 0.31$, SE = 1.06, $p = .768$, OR = 1.37). Bootstrap confidence intervals for both Agreeableness parameters were wide and included zero (linear: 95% CI [−229.21, 20.67]; quadratic: 95% CI [−2.83, 45.03]), reflecting substantial estimation uncertainty.

Overall classification accuracy was 83.8%, driven primarily by correct classification of affirmative responses, while negative responses were not reliably predicted.

In summary, willingness to act in the switch case was not systematically associated with HEXACO personality traits, and the inclusion of a quadratic Agreeableness term did not yield evidence for a meaningful nonlinear relationship within this model.

HEXACO Predictors of Moral Acceptability in the Footbridge scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict moral acceptability in the footbridge case, with moral acceptability of pushing the person coded as a binary outcome (0 = no, 1 = yes). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model significantly differed from the intercept-only model, $\chi^2(6) = 12.93$, $p = .044$. Explained variance was moderate, with Cox & Snell $R^2 = .146$ and Nagelkerke $R^2 = .233$. Model fit was good, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 3.49$, $p = .900$.

Within the model, Honesty–Humility emerged as a significant predictor of moral acceptability. Lower Honesty–Humility was associated with a higher likelihood of judging the action as morally acceptable ($B = -1.23$, SE = 0.61, $p = .042$, OR = 0.29, 95% CI [0.09, 0.96]). This effect was supported by the bootstrap analysis, which yielded a significant percentile-based confidence interval ($B = -1.23$, 95% CI [−3.09, −0.25], $p = .018$).

Conscientiousness showed a trend-level effect, with lower scores being associated with greater moral acceptability ($B = -0.81$, SE = 0.45, $p = .071$, OR = 0.44, 95% CI [0.18, 1.07]). The bootstrap confidence interval for this parameter included zero ($B = -0.81$, 95% CI [−2.11, 0.20], $p = .061$).

No significant associations were observed for Emotionality ($B = 0.08$, SE = 0.48, $p = .867$, OR = 1.08, 95% CI [0.42, 2.78]), Extraversion ($B = -0.20$, SE = 0.48, $p = .677$, OR = 0.82, 95% CI [0.32, 2.10]), Agreeableness ($B = -0.16$, SE = 0.54, $p = .770$, OR = 0.85, 95% CI [0.29, 2.48]), or Openness ($B = -0.16$, SE = 0.54, $p = .765$, OR = 0.85, 95% CI [0.29, 2.47]). Bootstrap confidence intervals for all nonsignificant predictors included zero.

Overall classification accuracy of the model was 84.1%, with high accuracy for non-acceptance responses (98.5%) and lower accuracy for acceptance responses (25.0%).

In summary, moral acceptability in the footbridge case was significantly associated with Honesty–Humility, while other HEXACO dimensions did not show reliable effects within this model.

HEXACO Predictors of Willingness To Act in the Footbridge scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict willingness to act in the footbridge case, with willingness to push the person coded as a binary outcome (0 = no, 1 = yes). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(6) = 4.66$, $p = .588$. Explained variance was low to moderate, with Cox & Snell $R^2 = .055$ and Nagelkerke $R^2 = .205$. Model fit was good, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 3.00$, $p = .934$.

Within the model, none of the HEXACO dimensions emerged as significant predictors of willingness to act. Honesty–Humility was not associated with the likelihood of pushing the person ($B = -0.55$, SE = 1.20, $p = .643$, OR = 0.58, 95% CI [0.06, 5.99]). Emotionality likewise showed no significant effect ($B = -0.25$, SE = 1.08, $p = .813$, OR = 0.78, 95% CI [0.09, 6.39]). Extraversion was not a significant predictor ($B = -1.67$, SE = 1.22, $p = .169$, OR = 0.19, 95% CI [0.02, 2.04]), nor was Agreeableness ($B = 0.92$, SE = 1.26, $p = .466$, OR = 2.51, 95% CI [0.21, 29.94]). No significant associations were observed for Conscientiousness ($B = -0.54$, SE = 0.85, $p = .524$, OR = 0.58, 95% CI [0.11, 3.07]) or Openness ($B = -0.67$, SE = 1.02, $p = .509$, OR = 0.51, 95% CI [0.07, 3.76]).

Bootstrap analyses corroborated these findings, with percentile-based confidence intervals for all predictors including zero. Due to the very low base rate of affirmative responses (3 out of 82 participants), several bootstrap resamples exhibited numerical instability, resulting in wide confidence intervals.

Overall classification accuracy of the model was 96.3%, reflecting perfect classification of non-action responses and no correct classification of action responses.

In summary, willingness to act in the footbridge case was not reliably associated with any of the HEXACO personality dimensions within this model.

HEXACO Predictors of Perspective of Moral Acceptability in the Switch Scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict perspective adopted after judging moral acceptability in the switch case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(6) = 8.65$, $p = .194$. Explained variance was modest, with Cox & Snell $R^2 = .118$ and Nagelkerke $R^2 = .158$. Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 12.55$, $p = .128$.

Within the model, Honesty–Humility showed a trend-level association with perspective. Higher Honesty–Humility scores were associated with an increased likelihood of adopting a third-person perspective ($B = 0.83$, SE = 0.44, $p = .060$, OR = 2.28, 95% CI [0.97, 5.40]). The bootstrap analysis yielded a confidence interval that narrowly excluded zero ($B = 0.83$, 95% CI [0.02, 2.45], $p = .077$).

No significant associations were observed for Emotionality ($B = 0.36$, SE = 0.42, $p = .391$, OR = 1.43, 95% CI [0.63, 3.25]), Extraversion ($B = 0.52$, SE = 0.41, $p = .202$, OR = 1.69, 95% CI [0.76, 3.77]), Agreeableness ($B = 0.35$, SE = 0.46, $p = .444$, OR = 1.42, 95% CI [0.58, 3.52]), Conscientiousness ($B = -0.40$, SE = 0.38, $p = .288$, OR = 0.67, 95% CI [0.32, 1.40]), or Openness ($B = -0.50$, SE = 0.45, $p = .262$, OR = 0.61, 95% CI [0.25, 1.46]). Bootstrap confidence intervals for all nonsignificant predictors included zero.

Overall classification accuracy of the model was 58.0%, with higher accuracy for first-person perspective responses (71.1%) than for third-person perspective responses (41.9%).

In summary, perspective adoption following moral acceptability judgments in the switch case was not reliably predicted by HEXACO personality traits, although Honesty–Humility showed a trend-level association with adopting a third-person perspective.

HEXACO Predictors of Perspective of Willingness to Act in the Switch Scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict perspective adopted after responding to the willingness-to-act question in the switch case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model showed a trend-level deviation from the intercept-only model, $\chi^2(6) = 11.86$, $p = .065$. Explained variance was modest to moderate, with Cox & Snell $R^2 = .152$ and Nagelkerke $R^2 = .217$. Model fit was adequate, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 7.25$, $p = .510$.

Within the model, Emotionality emerged as a significant predictor of perspective. Lower Emotionality was associated with a higher likelihood of adopting a third-person perspective ($B = -0.90$, SE = 0.45, $p = .042$, OR = 0.41, 95% CI [0.17, 0.97]). This effect was supported by the bootstrap analysis, which yielded a significant percentile-based confidence interval ($B = -0.90$, 95% CI [−2.31, −0.02], $p = .025$).

Conscientiousness also showed a significant association in the parametric model, with lower Conscientiousness predicting a higher likelihood of third-person perspective adoption ($B = -0.80$, SE = 0.40, $p = .045$, OR = 0.45, 95% CI [0.21, 0.98]). The corresponding bootstrap confidence interval included zero ($B = -0.80$, 95% CI [−2.16, 0.17], $p = .063$), indicating reduced robustness of this effect.

Honesty–Humility showed a nonsignificant trend in the parametric model ($B = 0.66$, SE = 0.44, $p = .130$, OR = 1.94, 95% CI [0.82, 4.58]), with a bootstrap confidence interval that included zero ($B = 0.66$, 95% CI [−0.18, 2.16], $p = .117$). No significant associations were observed for Extraversion ($B =$

0.06, SE = 0.44, *p* = .890, OR = 1.06, 95% CI [0.45, 2.51]), Agreeableness (*B* = 0.08, SE = 0.48, *p* = .874, OR = 1.08, 95% CI [0.42, 2.75]), or Openness (*B* = 0.40, SE = 0.48, *p* = .400, OR = 1.49, 95% CI [0.59, 3.80]). Bootstrap confidence intervals for all nonsignificant predictors included zero.

Overall classification accuracy of the model was 73.6%, with high accuracy for first-person perspective responses (92.2%) and substantially lower accuracy for third-person perspective responses (28.6%).

In summary, perspective adoption following willingness-to-act judgments in the switch case was primarily associated with lower Emotionality, with Conscientiousness showing a less robust association. Other HEXACO dimensions did not reliably predict perspective within this model.

HEXACO Predictors of Perspective of Moral Acceptability in the Footbridge Scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict the perspective adopted after responding to the moral acceptability question in the footbridge case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(6) = 8.21$, *p* = .223. Explained variance was modest, with Cox & Snell R^2 = .104 and Nagelkerke R^2 = .139. Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(7) = 10.24$, *p* = .176.

Within the model, none of the HEXACO dimensions reached conventional significance. Honesty–Humility showed a nonsignificant positive association with adopting a third-person perspective (*B* = 0.53, SE = 0.48, *p* = .264, OR = 1.70, 95% CI [0.67, 4.34]), and the corresponding bootstrap confidence interval included zero (*B* = 0.53, 95% CI [−0.51, 1.93], *p* = .300). Emotionality was negatively associated with third-person perspective adoption at a nonsignificant level (*B* = −0.57, SE = 0.41, *p* = .160, OR = 0.56, 95% CI [0.25, 1.25]), with a bootstrap interval that also spanned zero (*B* = −0.57, 95% CI [−1.68, 0.27], *p* = .164).

Agreeableness and Conscientiousness showed trend-level associations in the parametric model, such that lower scores were related to a greater likelihood of adopting a third-person perspective (Agreeableness: $B = -0.90$, SE = 0.48, $p = .061$, OR = 0.41, 95% CI [0.16, 1.04]; Conscientiousness: $B = -0.61$, SE = 0.36, $p = .094$, OR = 0.54, 95% CI [0.27, 1.11]). However, bootstrap confidence intervals for both parameters included zero (Agreeableness: $B = -0.90$, 95% CI [−2.31, 0.03], $p = .062$; Conscientiousness: $B = -0.61$, 95% CI [−1.67, 0.13], $p = .092$), indicating that these effects should be interpreted with caution. No meaningful associations were observed for Extraversion ($B = 0.44$, SE = 0.42, $p = .292$, OR = 1.56, 95% CI [0.69, 3.53]; bootstrap 95% CI [−0.46, 1.58], $p = .307$) or Openness ($B = -0.37$, SE = 0.42, $p = .373$, OR = 0.69, 95% CI [0.30, 1.56]; bootstrap 95% CI [−1.74, 0.53], $p = .422$).

Overall classification accuracy of the model was 58.7%, with better classification for first-person perspective responses (73.8%) than for third-person perspective responses (39.4%).

In summary, perspective adoption after moral acceptability judgments in the footbridge case was not reliably predicted by HEXACO traits in this model, although lower Agreeableness and Conscientiousness showed trend-level associations that did not remain robust in the bootstrap estimates.

HEXACO Predictors of Perspective of Willingness to Act in the Footbridge Scenario

A logistic regression was conducted to examine whether HEXACO personality traits predict the perspective adopted after responding to the willingness-to-act question in the footbridge case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model significantly differed from the intercept-only model, $\chi^2(6) = 17.55$, $p = .007$. Explained variance was moderate, with Cox & Snell $R^2 = .216$ and Nagelkerke $R^2 = .303$. Model fit was good, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 6.53$, $p = .588$.

Within the model, Honesty–Humility emerged as a significant positive predictor of adopting a third-person perspective. Higher Honesty–Humility was associated with an increased likelihood of reporting a third-person perspective ($B = 1.48$, SE $= 0.61$, $p = .016$, OR $= 4.40$, 95% CI [1.33, 14.63]). This effect was supported by the bootstrap analysis, which yielded a significant percentile-based confidence interval ($B = 1.48$, 95% CI [0.37, 3.50], $p = .006$).

Emotionality showed a significant negative association with third-person perspective adoption ($B = -1.07$, SE $= 0.51$, $p = .036$, OR $= 0.34$, 95% CI [0.13, 0.93]). The bootstrap analysis yielded a borderline-significant effect, with the confidence interval narrowly excluding zero ($B = -1.07$, 95% CI [-3.28, -0.03], $p = .054$).

Conscientiousness also emerged as a significant negative predictor, with lower Conscientiousness associated with a greater likelihood of adopting a third-person perspective ($B = -1.22$, SE $= 0.46$, $p = .009$, OR $= 0.30$, 95% CI [0.12, 0.74]). This effect was robust in the bootstrap analysis ($B = -1.22$, 95% CI [-3.20, -0.28], $p = .004$).

Agreeableness showed a trend-level negative association in the parametric model ($B = -1.09$, SE $= 0.59$, $p = .064$, OR $= 0.34$, 95% CI [0.11, 1.07]), and the bootstrap confidence interval narrowly included zero ($B = -1.09$, 95% CI [-2.68, 0.07], $p = .037$). Openness also showed a trend-level effect ($B = -0.88$, SE $= 0.51$, $p = .085$, OR $= 0.42$, 95% CI [0.15, 1.13]), but the bootstrap confidence interval included zero ($B = -0.88$, 95% CI [-2.54, 0.16], $p = .072$). Extraversion was not associated with perspective adoption ($B = 0.15$, SE $= 0.49$, $p = .760$, OR $= 1.16$, 95% CI [0.45, 3.03]), and the bootstrap analysis confirmed the absence of an effect ($B = 0.15$, 95% CI [-1.20, 1.59], $p = .777$).

Overall classification accuracy of the model was 77.8%, with high accuracy for first-person perspective responses (91.8%) and moderate accuracy for third-person perspective responses (47.8%).

In summary, perspective adoption following willingness-to-act judgments in the footbridge case was significantly associated with Honesty–Humility, Emotionality, and Conscientiousness, with higher Honesty–Humility and lower Emotionality and Conscientiousness predicting a greater likelihood of adopting a third-person perspective.

HEXACO Predictors of Moral Acceptability Vividness in the Switch Scenario

A multiple linear regression with 5,000 bootstrap samples was conducted to examine whether personality dimensions predicted how vividly participants imagined their judgment of moral acceptability in the Switch scenario (N = 55). All six HEXACO traits were entered simultaneously.

The overall model was significant, $F(6, 48) = 2.79$, $p = .021$, explaining a moderate proportion of variance ($R^2 = .26$, adjusted $R^2 = .17$). The Durbin–Watson statistic (1.90; 95% CI [0.93, 1.94]) indicated no substantial autocorrelation. Collinearity diagnostics showed acceptable tolerance values (.71–.95) and VIF values (1.06–1.41), indicating no problematic multicollinearity. Examination of standardized residuals (range –2.09 to 1.91) and bootstrap-based distribution checks indicated no severe violations of normality or homoscedasticity; thus, regression assumptions were deemed adequately met for an exploratory model.

Bootstrap confidence intervals (5,000 samples, percentile CI) revealed two significant predictors. Higher scores on the Emotionality dimension were associated with more vivid mental imagery, $B = 1.02$, SE_boot = 0.44, $p = .021$, 95% CI [0.07, 1.81]. Higher Extraversion also predicted greater vividness, $B = 0.87$, SE_boot = 0.42, $p = .043$, 95% CI [–0.01, 1.66] (borderline lower bound, but significant in the bootstrap). All other HEXACO traits showed no significant unique contributions (all ps_boot ≥ .11).

HEXACO Predictors of Action Vividness in the Switch Scenario

A multiple linear regression with 5,000 bootstrap samples was conducted to examine whether personality dimensions predicted how vividly participants imagined the action they would take in the Switch scenario (N = 67). All six HEXACO traits were entered simultaneously.

The overall model was statistically significant, $F(6, 60) = 4.24$, $p = .001$, explaining a moderate proportion of variance in vividness ($R^2 = .30$, adjusted $R^2 = .23$). The Durbin–Watson statistic (2.20; 95% CI [1.00, 1.94]) indicated no substantial autocorrelation. Collinearity diagnostics showed

acceptable tolerance (.87–.97) and VIF values (1.03–1.15), indicating no problematic multicollinearity. Standardized residuals ranged from –1.97 to 2.10 and did not indicate severe deviations from normality or homoscedasticity; overall, model assumptions were considered adequately met for exploratory analysis.

Bootstrap percentile confidence intervals (5,000 samples) revealed three significant predictors. Higher scores on the Emotionality dimension were associated with more vivid imagined action, $B = 1.00$, SE_boot $= 0.22$, $p < .001$, 95% CI [0.58, 1.47]. Higher Extraversion also predicted greater vividness, $B = 0.54$, SE_boot $= 0.23$, $p = .020$, 95% CI [0.10, 1.01]. Additionally, higher Openness scores predicted greater vividness, $B = 0.62$, SE_boot $= 0.29$, $p = .041$, 95% CI [0.07, 1.23]. All remaining traits showed no significant associations (all ps_boot $\geq .68$).

HEXACO Predictors of Moral Acceptability Vividness in the Footbridge Scenario

A multiple linear regression with 5,000 bootstrap samples was conducted to examine whether HEXACO traits predicted how vividly participants imagined the *moral acceptability* of pushing in the Footbridge scenario ($N = 65$). All six traits were entered simultaneously.

The overall model was not statistically significant, $F(6, 58) = 1.14$, $p = .35$, and explained only a small proportion of variance ($R^2 = .11$, adj. $R^2 = .01$). The Durbin–Watson statistic (1.51; 95% CI [0.82, 1.65]) suggested no evidence of problematic autocorrelation. Collinearity diagnostics indicated no multicollinearity concerns, with all tolerances $> .74$ and VIF values ≤ 1.34. Standardized residuals ranged from –2.40 to 1.37, showing no signs of severe non-normality or heteroscedasticity; overall, assumptions were sufficiently met to justify exploratory interpretation.

None of the HEXACO dimensions significantly predicted vividness after bootstrapping (all p_boot $\geq .09$). Two traits showed weak, non-significant trends: higher Conscientiousness ($B = 0.66$, SE_boot $= 0.38$, $p = .085$, 95% CI [–0.14, 1.35]) and higher Openness ($B = 0.58$, SE_boot $= 0.35$, $p = .092$, 95% CI [–0.11, 1.28]) were associated with slightly more vivid imagined moral acceptability, but confidence intervals included zero. All other traits were unrelated to vividness (all p_boot $\geq .63$).

HEXACO Predictors of Action Vividness in the Footbridge Scenario

A multiple linear regression with 5,000 bootstrap samples examined whether HEXACO traits predicted how vividly participants imagined *carrying out* the action (i.e., pushing the person) in the Footbridge scenario (N = 79). All six personality traits were entered simultaneously.

The overall model was not statistically significant, $F(6, 72) = 1.69$, $p = .14$, explaining only a small proportion of variance ($R^2 = .12$, adj. $R^2 = .05$). The Durbin–Watson statistic (1.65; 95% CI [0.78, 1.61]) indicated no meaningful autocorrelation. Residual diagnostics showed standardized residuals between –2.17 and 1.58, suggesting no substantial violations of normality or heteroscedasticity. Tolerance values were all > .72 and VIF values ≤ 1.37, indicating no multicollinearity concerns. Overall, assumptions were adequately met.

Of all predictors, only Openness showed a statistically significant positive association with vividness, $B = 0.79$, SE_boot = 0.25, $p = .002$, 95% CI [0.33, 1.31]. Participants higher in Openness imagined the act of pushing more vividly. All other HEXACO traits were unrelated to vividness (all p_boot ≥ .20).

3.6.3 Emotional Intelligence

EI-4 Predictors of Moral Acceptability in the Switch Scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict moral acceptability in the switch case, with moral acceptability of pulling the switch coded as a binary outcome (0 = no, 1 = yes). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 4.30$, $p = .367$. Explained variance was low, with Cox & Snell $R^2 = .056$ and Nagelkerke $R^2 = .087$. Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 12.10$, $p = .147$.

None of the EI-4 dimensions emerged as significant predictors of moral acceptability. Empathy (Einfühlungsvermögen) was not associated with moral acceptability ($B = -0.08$, SE = 0.88, $p = .926$, OR = 0.92, 95% CI [0.16, 5.20]), and the bootstrap confidence interval included zero ($B = -0.08$, 95% CI [−1.97, 1.83], $p = .916$).

People-reading ability (Menschenkenntnis) likewise showed no significant effect ($B = -0.99$, SE = 0.92, $p = .284$, OR = 0.37, 95% CI [0.06, 2.27]), with the bootstrap analysis confirming the absence of a reliable association ($B = -0.99$, 95% CI [−3.34, 1.01], $p = .277$).

Emotional self-control (Emotionale Selbstkontrolle) was not significantly related to moral acceptability ($B = 0.51$, SE = 0.53, $p = .333$, OR = 1.67, 95% CI [0.59, 4.68]); the bootstrap confidence interval included zero ($B = 0.51$, 95% CI [−0.60, 1.58], $p = .257$).

Similarly, persuasiveness (Überzeugungskraft) did not predict moral acceptability ($B = 0.88$, SE = 0.69, $p = .201$, OR = 2.42, 95% CI [0.62, 9.38]), and the bootstrap analysis yielded a nonsignificant confidence interval ($B = 0.88$, 95% CI [−0.48, 2.48], $p = .172$).

Overall classification accuracy of the model was 79.7%, reflecting high accuracy for morally acceptable responses (100.0%) and very low accuracy for non-acceptable responses (6.3%), indicating limited discriminative power beyond the base rate.

In summary, none of the EI-4 emotional intelligence facets showed a reliable association with moral acceptability in the switch case, and the model accounted for only a small proportion of variance in moral judgments.

EI-4 Predictors of Willingness To Act in the Switch Scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict willingness to act in the switch case, with willingness to pull the switch coded as a binary outcome (0 = no, 1 = yes). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 4.08$, $p = .396$.

Explained variance was low, with Cox & Snell $R^2 = .054$ and Nagelkerke $R^2 = .094$. Model fit was

acceptable according to the Hosmer–Lemeshow test, $\chi^2(8) = 10.21$, $p = .251$.

None of the EI-4 dimensions emerged as significant predictors of willingness to act. Empathy

(Einfühlungsvermögen) was not associated with the likelihood of pulling the switch ($B = 0.49$, SE =

1.01, $p = .630$, OR = 1.63, 95% CI [0.23, 11.77]), and the bootstrap confidence interval included zero

($B = 0.49$, 95% CI [−1.35, 2.63], $p = .561$).

Similarly, people-reading ability (Menschenkenntnis) showed no reliable effect ($B = −0.35$, SE = 1.12,

$p = .755$, OR = 0.71, 95% CI [0.08, 6.28]); the bootstrap interval again crossed zero ($B = −0.35$, 95%

CI [−3.80, 2.58], $p = .765$).

Emotional self-control (Emotionale Selbstkontrolle) showed a trend-level association with willingness

to act, with higher self-control being associated with a greater likelihood of pulling the switch ($B =$

1.14, SE = 0.63, $p = .069$, OR = 3.13, 95% CI [0.92, 10.69]). The bootstrap analysis yielded a

percentile-based confidence interval that narrowly excluded zero ($B = 1.14$, 95% CI [0.09, 3.43], $p =$

.052), suggesting a borderline, but not clearly robust, effect.

In contrast, persuasiveness (Überzeugungskraft) was not significantly related to willingness to act ($B =$

−0.33, SE = 0.81, $p = .681$, OR = 0.72, 95% CI [0.15, 3.50]), and the bootstrap confidence interval

also included zero ($B = −0.33$, 95% CI [−2.62, 1.44], $p = .672$).

Overall classification accuracy of the model was 83.8%, reflecting very high accuracy for willingness-

to-act responses (yes: 98.4%) but failure to correctly identify any "no" responses (0.0%). Given that

the intercept-only model already achieved 85.1% accuracy, the predictors add little discriminative

value beyond the base rate.

In summary, EI-4 facets did not reliably predict willingness to pull the switch in the switch case,

although emotional self-control showed a borderline trend toward higher willingness to act, which

should be interpreted cautiously given the small sample and wide confidence intervals.

EI-4 Predictors of Moral Acceptability in the Footbridge scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict moral acceptability in the footbridge case, with moral acceptability of pushing the person coded as a binary outcome (0 = no, 1 = yes). Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 3.51$, $p = .476$. Explained variance was low (Cox & Snell $R^2 = .042$; Nagelkerke $R^2 = .067$). Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8) = 7.57$, $p = .477$.

None of the EI-4 dimensions emerged as significant predictors of moral acceptability. Empathy (Einfühlungsvermögen) was not associated with judging the action as morally acceptable ($B = -0.58$, SE = 0.94, $p = .540$, OR = 0.56, 95% CI [0.09, 3.57]), and the bootstrap confidence interval included zero ($B = -0.58$, 95% CI [−3.46, 2.45], $p = .637$).
Similarly, people-reading ability (Menschenkenntnis) showed no reliable association ($B = 0.55$, SE = 0.83, $p = .506$, OR = 1.73, 95% CI [0.34, 8.73]); the bootstrap interval again crossed zero ($B = 0.55$, 95% CI [−1.50, 2.94], $p = .549$).

Emotional self-control (Emotionale Selbstkontrolle) showed a nonsignificant tendency toward lower moral acceptability ($B = -0.83$, SE = 0.53, $p = .113$, OR = 0.44, 95% CI [0.16, 1.22]). The bootstrap analysis yielded a percentile-based confidence interval that included zero ($B = -0.83$, 95% CI [−2.15, 0.15], $p = .088$).
Finally, persuasiveness (Überzeugungskraft) was unrelated to moral acceptability ($B = 0.28$, SE = 0.80, $p = .726$, OR = 1.32, 95% CI [0.28, 6.29]), with the bootstrap confidence interval also spanning zero ($B = 0.28$, 95% CI [−1.59, 2.49], $p = .752$).

Overall classification accuracy of the model was 80.5%, reflecting high accuracy for non-acceptance responses (100.0%) but complete failure to identify acceptance responses (0.0%), indicating strong class imbalance and limited discriminative capacity.

In summary, EI-4 facets did not reliably predict moral acceptability in the footbridge case, and the observed effects were small, unstable, and accompanied by wide confidence intervals, suggesting limited explanatory value of emotional intelligence for moral acceptance judgments in this dilemma.

EI-4 Predictors of Willingness To Act in the Footbridge scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict willingness to act in the footbridge case, with willingness to push the person coded as a binary outcome (0 = no, 1 = yes). Analyses were based on $N = 82$ participants, and parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals (note that, due to the very low number of "yes" responses, only 4,744 bootstrap samples were usable and several resamples could not be estimated).

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 6.65$, $p = .155$. Explained variance was modest (Cox & Snell $R^2 = .078$; Nagelkerke $R^2 = .289$). Model fit appeared adequate according to the Hosmer–Lemeshow test, $\chi^2(8) = 0.96$, $p = .998$, although this statistic is difficult to interpret given the extreme class imbalance (only 3 participants indicated willingness to push).

None of the EI-4 facets emerged as reliable predictors of willingness to push. Empathy (Einfühlungsvermögen) was positively but very imprecisely associated with willingness to act ($B = 2.53$, SE = 2.19, $p = .248$, OR = 12.49, 95% CI [0.17, 907.66]); bootstrapped percentile-based confidence intervals were extremely wide and included zero, indicating unstable estimation. People-reading ability (Menschenkenntnis) showed a trend-level negative association ($B = -3.70$, SE = 1.94, $p = .057$, OR = 0.03, 95% CI [0.001, 1.12]); here, the parametric CI narrowly included 1, and bootstrapped intervals were again very wide, reflecting the small number of "yes" responses. Emotional self-control (Emotionale Selbstkontrolle) also showed a nonsignificant negative association ($B = -2.26$, SE = 1.51, $p = .134$, OR = 0.10, 95% CI [0.01, 2.00]), and persuasiveness (Überzeugungskraft) was not reliably related to willingness to act ($B = 1.48$, SE = 1.88, $p = .429$, OR =

4.41, 95% CI [0.11, 175.04]). For all predictors, bootstrap-based confidence intervals were extremely broad and generally included zero, underscoring the instability of the estimates.

Overall classification accuracy of the model was 96.3%, but this was entirely driven by the majority class: the model correctly classified all "no" responses (100.0%) and failed to correctly classify any "yes" responses (0.0%), indicating severe class imbalance and very limited discriminative capacity.

In summary, EI-4 facets did not reliably predict willingness to push the person in the footbridge case. Given the extremely low base rate of "yes" responses and the unstable bootstrap estimates, these results should be interpreted as largely descriptive and underpowered rather than as strong evidence for or against specific EI effects on willingness to act.

EI-4 Predictors of Perspective of Moral Acceptability in the Switch Scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict the imagined visual perspective after the moral acceptability judgment in the switch case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Analyses were based on $N = 69$ participants, and parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 2.14$, $p = .709$. Explained variance was very small (Cox & Snell $R^2 = .031$; Nagelkerke $R^2 = .041$). Model fit according to the Hosmer–Lemeshow test was acceptable, $\chi^2(8) = 9.97$, $p = .267$.

At the level of individual predictors, none of the EI-4 facets showed reliable associations with perspective choice. Higher empathy (Einfühlungsvermögen) was numerically associated with a greater likelihood of reporting a third-person perspective ($B = 0.46$, SE = 0.74, $p = .539$, OR = 1.58, 95% CI [0.37, 6.79]), but the confidence interval was wide and included 1, and the bootstrap interval likewise included zero (B = 0.46, 95% CI [−1.13, 2.20]). People-reading ability (Menschenkenntnis) showed a nonsignificant negative trend ($B = −0.49$, SE = 0.77, $p = .528$, OR = 0.61, 95% CI [0.14, 2.80]; bootstrap CI [−2.48, 1.22]). Emotional self-control (Emotionale Selbstkontrolle) was not significantly

related to perspective ($B = -0.27$, SE = 0.46, $p = .555$, OR = 0.76, 95% CI [0.31, 1.87]; bootstrap CI [−1.38, 0.86]), and persuasiveness (Überzeugungskraft) likewise showed no reliable effect ($B = -0.36$, SE = 0.58, $p = .540$, OR = 0.70, 95% CI [0.23, 2.19]; bootstrap CI [−1.82, 0.90]).

Overall classification accuracy of the model was 55.1%, identical to the intercept-only solution. The model correctly classified 78.9% of first-person perspective reports but only 25.8% of third-person reports, indicating limited discriminative performance.

In summary, EI-4 facets did not meaningfully predict whether participants reported a first- versus third-person visual perspective after judging the moral acceptability of pulling the switch. Any apparent tendencies were small, unstable, and accompanied by wide confidence intervals, suggesting that these effects should be interpreted as descriptive and underpowered rather than substantive.

EI-4 Predictors of Perspective of Willingness to Act in the Switch Scenario

A logistic regression was conducted to examine whether emotional intelligence facets from the EI-4 predict the imagined visual perspective after the willingness-to-act judgment in the switch case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Analyses were based on $N = 72$ participants. Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 1.64$, $p = .801$. Explained variance was minimal (Cox & Snell $R^2 = .023$; Nagelkerke $R^2 = .032$). Model fit was acceptable according to the Hosmer–Lemeshow test, $\chi^2(8) = 7.61$, $p = .473$.

None of the EI-4 facets showed a reliable association with perspective choice following the willingness-to-act judgment. Empathy (Einfühlungsvermögen) was positively but nonsignificantly associated with reporting a third-person perspective ($B = 0.40$, SE = 0.80, $p = .618$, OR = 1.49, 95% CI [0.31, 7.16]); the bootstrap confidence interval included zero ($B = 0.40$, 95% CI [−1.43, 2.20]). People-reading ability (Menschenkenntnis) showed a nonsignificant negative association ($B = -0.29$, SE = 0.82, $p = .726$, OR = 0.75, 95% CI [0.15, 3.77]; bootstrap CI [−2.15, 1.79]). Emotional self-

control (Emotionale Selbstkontrolle) was not significantly related to perspective ($B = 0.49$, SE = 0.52, $p = .349$, OR = 1.63, 95% CI [0.59, 4.56]; bootstrap CI [−0.66, 2.15]), nor was persuasiveness (Überzeugungskraft) ($B = 0.26$, SE = 0.63, $p = .677$, OR = 1.30, 95% CI [0.38, 4.45]; bootstrap CI [−1.01, 1.58]).

Overall classification accuracy of the model was 70.8%, identical to the intercept-only solution. The model correctly classified all first-person perspective reports (100.0%) but failed to correctly classify any third-person perspective reports (0.0%), indicating limited discriminative performance.

In summary, EI-4 facets did not meaningfully predict whether participants reported a first- versus third-person visual perspective after judging their willingness to act in the switch case. Observed effects were small, statistically unreliable, and accompanied by wide confidence intervals, suggesting that these findings should be interpreted as descriptive rather than indicative of robust associations.

EI-4 Predictors of Perspective of Moral Acceptability in the Footbridge Scenario

A logistic regression was conducted to examine whether emotional intelligence facets (EI-4) predict the imagined visual perspective following the moral acceptability judgment in the footbridge case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Analyses were based on $N = 75$ participants. Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model did not significantly differ from the intercept-only model, $\chi^2(4) = 2.98$, $p = .561$. Explained variance was low (Cox & Snell $R^2 = .039$; Nagelkerke $R^2 = .052$). Model fit was acceptable according to the Hosmer–Lemeshow test, $\chi^2(7) = 11.42$, $p = .121$.

None of the EI-4 facets showed a statistically reliable association with visual perspective following the moral acceptability judgment. Empathy (Einfühlungsvermögen) showed a negative but nonsignificant association with reporting a third-person perspective ($B = −1.12$, SE = 0.79, $p = .156$, OR = 0.33, 95% CI [0.07, 1.53]); the bootstrap confidence interval included zero ($B = −1.12$, 95% CI [−3.18, 0.58]). People-reading ability (Menschenkenntnis) was unrelated to perspective choice ($B = 0.14$, SE = 0.67, p

= .838, OR = 1.15, 95% CI [0.31, 4.25]; bootstrap CI [−1.38, 1.71]). Emotional self-control (Emotionale Selbstkontrolle) also showed no association (B = 0.10, SE = 0.46, p = .823, OR = 1.11, 95% CI [0.45, 2.71]; bootstrap CI [−0.85, 1.16]), nor did persuasiveness (Überzeugungskraft) (B = −0.45, SE = 0.72, p = .535, OR = 0.64, 95% CI [0.16, 2.63]; bootstrap CI [−2.35, 1.07]).

Overall classification accuracy of the model was 56.0%, identical to the intercept-only solution. The model correctly classified 76.2% of first-person perspective reports but only 30.3% of third-person perspective reports, indicating limited discriminative performance.

In summary, EI-4 facets did not meaningfully predict whether participants reported a first- versus third-person visual perspective after judging the moral acceptability of the action in the footbridge case. Effects were small, statistically unreliable, and accompanied by wide confidence intervals, suggesting that these results should be interpreted as descriptive rather than indicative of robust associations.

EI-4 Predictors of Perspective of Willingness to Act in the Footbridge Scenario

A logistic regression was conducted to examine whether emotional intelligence facets (EI-4) predict the imagined visual perspective following the willingness-to-act judgment in the footbridge case, with perspective coded as a binary outcome (0 = first-person perspective, 1 = third-person perspective). Analyses were based on N = 72 participants. Parameter estimates were obtained using 5,000 bootstrap samples with percentile-based 95% confidence intervals.

The full model showed a trend-level deviation from the intercept-only model, $\chi^2(4)$ = 8.80, p = .066. Explained variance was modest (Cox & Snell R^2 = .115; Nagelkerke R^2 = .161). Model fit was acceptable, as indicated by a nonsignificant Hosmer–Lemeshow test, $\chi^2(8)$ = 8.15, p = .419.

Within the model, Empathy (Einfühlungsvermögen) showed a trend-level negative association with reporting a third-person perspective following willingness to act (B = −1.50, SE = 0.85, p = .078, OR = 0.22, 95% CI [0.04, 1.18]). The bootstrap analysis yielded a percentile-based confidence interval

that narrowly included zero ($B = -1.50$, 95% CI [-3.95, 0.11], $p = .057$), indicating a marginal but unstable effect.

No reliable associations were observed for People-reading ability (Menschenkenntnis) ($B = -0.36$, SE $= 0.74$, $p = .626$, OR $= 0.70$, 95% CI [0.16, 2.99]; bootstrap CI [-2.31, 1.63]), Emotional self-control (Emotionale Selbstkontrolle) ($B = -0.13$, SE $= 0.51$, $p = .794$, OR $= 0.88$, 95% CI [0.32, 2.38]; bootstrap CI [-1.22, 0.87]), or Persuasiveness (Überzeugungskraft) ($B = -0.73$, SE $= 0.78$, $p = .350$, OR $= 0.48$, 95% CI [0.11, 2.22]; bootstrap CI [-2.78, 0.73]). Bootstrap confidence intervals for all nonsignificant predictors included zero.

Overall classification accuracy of the model was 73.6%, improving over the intercept-only solution (68.1%). Classification accuracy was high for first-person perspective reports (93.9%) but low for third-person perspective reports (30.4%), indicating limited sensitivity for identifying third-person perspective use.

In summary, EI-4 facets did not reliably predict whether participants reported a first- versus third-person visual perspective after indicating willingness to act in the footbridge case. Although empathy showed a trend-level association suggesting reduced likelihood of a third-person perspective, this effect was not robust across estimation methods and should be interpreted cautiously.

EI-4 Predictors of Moral Acceptability Vividness in the Switch Scenario

A multiple linear regression with 5,000 bootstrap samples examined whether EI-4 dimensions predicted how vividly participants imagined their judgment of moral acceptability in the Switch scenario (N = 55). All four EI-4 predictors (Empathy, Social Skills, Emotional Self-Control, Assertiveness) were entered simultaneously.

The overall model did not reach conventional significance, $F(5, 49) = 2.11$, $p = .080$, although it explained a small-to-moderate proportion of variance ($R^2 = .18$, adjusted $R^2 = .09$). The Durbin–Watson statistic (1.53; 95% CI [0.79, 1.73]) indicated no substantial autocorrelation. Collinearity diagnostics showed acceptable tolerance values (.58–.80) and VIF values (1.25–1.73), suggesting no

problematic multicollinearity. Standardized residuals (range –1.75 to 1.50) and bootstrap distribution checks indicated no critical deviations from normality or homoscedasticity. Thus, regression assumptions were considered adequately met for an exploratory model.

Bootstrap percentile confidence intervals showed no significant EI-4 predictors of vividness. All effects were small and nonsignificant, and all confidence intervals included zero. Empathy (B = 0.87, SE_boot = 0.82, 95% CI [–0.72, 2.50]), Social Skills (B = 1.01, SE_boot = 0.80, 95% CI [–0.54, 2.64]), Emotional Self-Control (B = 0.13, SE_boot = 0.58, 95% CI [–1.03, 1.29]), Assertiveness (B = 0.56, SE_boot = 0.62, 95% CI [–0.65, 1.77]) showed no reliable unique associations.

In contrast to the HEXACO model, the EI-4 subscales did not meaningfully predict how vividly participants mentally simulated their moral acceptability judgment in the Switch scenario. Although the overall model approached significance, effect sizes were small and uncertain, and no predictor survived bootstrapped inference.

EI-4 Predictors of Action Vividness in the Switch Scenario

A multiple linear regression with 5,000 bootstrap samples examined whether EI-4 dimensions predicted how vividly participants imagined their willingness to act in the Switch scenario (N = 67). All four EI-4 subscales (Empathy, Social Skills, Emotional Self-Control, Assertiveness,) were entered simultaneously.

The overall model was significant, $F(5, 61) = 3.72$, $p = .005$, explaining a moderate proportion of variance ($R^2 = .23$, adjusted $R^2 = .17$). The Durbin–Watson statistic (1.92; 95% CI [0.85, 1.78]) indicated no substantial autocorrelation. Collinearity diagnostics (tolerance .57–.90; VIF 1.11–1.76) suggested no problematic multicollinearity. Examination of standardized residuals (range –1.99 to 2.16) and bootstrap-based distribution checks indicated no major violations of normality or homoscedasticity; regression assumptions were therefore considered adequately met for exploratory purposes.

Bootstrap percentile confidence intervals identified three predictors with statistically robust—or near-robust—associations. Empathy positively predicted vividness, $B = 1.24$, SE_boot = 0.54, $p = .026$, 95% CI [0.17, 2.29].

Assertiveness (Überzeugungskraft) also showed a positive association, $B = 0.97$, SE_boot = 0.39, $p = .014$, 95% CI [0.20, 1.75]. Conversely, Emotional Self-Control negatively predicted vividness, $B = -0.68$, SE_boot = 0.35, $p = .053$, 95% CI [-1.45, -0.07], indicating a borderline but bootstrap-supported effect.

Social Skills (Menschenkenntnis) showed no significant contributions (ps_boot ≥ .57). In contrast to the results for imagined moral acceptability, several EI-4 subscales meaningfully predicted how vividly participants simulated their willingness to act in the Switch scenario. Greater empathy and assertiveness were linked to more vivid action imagery, whereas higher emotional self-control predicted less vivid imagery. Nevertheless, effects should be interpreted cautiously given modest sample size, the exploratory nature of the model, and the presence of one borderline predictor.

EI-4 Predictors of Moral Acceptability Vividness in the Footbridge Scenario

A multiple linear regression with 5,000 bootstrap samples examined whether EI-4 dimensions predicted how vividly participants imagined their judgment of moral acceptability in the Footbridge scenario ($N = 65$). All five EI-4 subscales (Empathy, Social Skills, Emotional Self-Control, Assertiveness) were entered simultaneously.

The overall model was not significant, $F(5, 59) = 0.68$, $p = .64$, explaining only minimal variance ($R^2 = .06$, adjusted $R^2 = -.03$). The Durbin–Watson statistic (1.75; 95% CI [0.83, 1.73]) indicated no evidence of problematic autocorrelation. Collinearity diagnostics showed acceptable tolerance values (.57–.94) and VIF values (1.06–1.75), suggesting no multicollinearity issues. Standardized residuals (-2.29 to 1.46) and bootstrap-based checks indicated no major deviations from normality or homoscedasticity; thus, model assumptions were considered adequately met for exploratory purposes.

Bootstrap percentile confidence intervals revealed that none of the EI-4 dimensions significantly predicted vividness. Empathy (B = 0.59, 95% CI [–0.89, 1.85], p = .36), Social Skills (B = –0.25, 95% CI [–1.41, 1.07], p = .68), Emotional Self-Control (B = 0.18, 95% CI [–0.99, 1.19], p = .75), Assertiveness (B = 0.56, 95% CI [–0.77, 1.81], p = .37) all yielded confidence intervals that included zero.

EI-4 dimensions were not associated with the vividness of imagined moral acceptability judgments in the Footbridge scenario. Given the limited explained variance and modest sample size, these results should be interpreted as exploratory and descriptive rather than conclusive.

EI-4 Predictors of Action Vividness in the Footbridge Scenario

A multiple linear regression with 5,000 bootstrap samples examined whether EI-4 dimensions predicted how vividly participants imagined their willingness to act in the Footbridge scenario (N = 79). All five EI-4 subscales (Empathy, Social Skills, Emotional Self-Control, Assertiveness) were entered simultaneously.

The overall model was not statistically significant, $F(5, 73)$ = 2.01, p = .087, explaining a small proportion of variance (R^2 = .12, adjusted R^2 = .06). The Durbin–Watson statistic (1.84; 95% CI [0.84, 1.70]) suggested no problematic autocorrelation. Collinearity diagnostics indicated acceptable tolerance values (.55–.93) and VIF values (1.08–1.81), indicating no evidence of multicollinearity. Examination of standardized residuals (–2.13 to 1.59) and bootstrap-based distribution checks suggested no severe violations of normality or homoscedasticity. Overall, model assumptions were sufficiently met for exploratory interpretation.

Bootstrap percentile confidence intervals indicated that none of the EI-4 subscales significantly predicted vividness of imagined action. Empathy (B = 0.42, 95% CI [–0.79, 1.44], p = .48), Social Skills (B = 0.44, 95% CI [–0.36, 1.35], p = .31), Emotional Self-Control (B = 0.31, 95% CI [–0.32, 0.95], p = .35), Assertiveness (B = 0.44, 95% CI [–0.45, 1.29], p = .31) all yielded confidence intervals crossing zero.

EI-4 dimensions were not meaningfully associated with the vividness of imagined willingness to act in the Footbridge scenario. Given the small effect sizes and moderate sample size, results should be interpreted cautiously and as exploratory.