posterior_epred() gives
the draws from the expected
value of the posterior
predictive distribution, or the
average of each draw from
posterior_predict().

In logistic regression, this is π on the probability scale (or inverse logit).

posterior_linpred(transform = TRUE) also gives the posterior draws of π on the probability scale.

 $y_i \sim \text{Binomial}(1, \pi_i)$

 $E(y_i)$

 $logit(\pi_i) = \alpha + \beta x_i$

posterior_linpred()

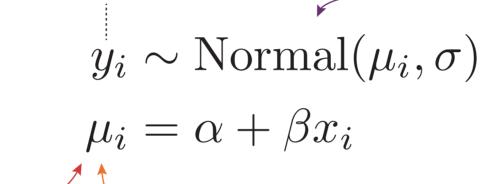
gives the posterior draws of π on the logit or log odds scale.

posterior_predict() gives the draws from a random binomial distribution with draws from the posterior distribution of π .

These are 0s and 1s.

posterior_epred() gives the draws from the expected value of the posterior predictive distribution, or the average of each draw from posterior_predict().

In Gaussian regression, this is the **same as** the linear predictor μ .



 $\mathbb{E}(y_i)$

posterior_linpred() gives the posterior draws of the linear model.

posterior_predict() gives the draws from a random normal distribution with draws from the posterior distributions of μ and σ .

posterior_epred() gives the draws from the expected value of the posterior predictive distribution, or the average of each draw from posterior_predict().

In beta regression, this is μ on the proportion or probability scale (or inverse logit).

 $y_i \sim \text{Beta}(\mu_i, \phi_i)$

 $logit(\mu_i) = \alpha_{\mu} + \beta_{\mu} x_i$

 $E(y_i)$

 $\log(\phi_i) = \alpha_\phi + \beta_\phi x_i$

posterior_predict() gives the draws from a random beta distribution with draws from the posterior distribution of π .

These are proportions or probabilities between 0-1.

posterior_linpred(transform = TRUE) also gives the posterior draws of μ on the proportion or probability scale.

posterior_linpred(dpar = "phi", transform = TRUE) also gives the posterior draws of φ on the unlogged scale.

posterior_linpred() gives the posterior draws of μ on the logit or log odds scale.

posterior_linpred(dpar = "phi") gives the posterior draws of φ on the log scale.