Beta Regression in the Presence of Outliers - a wieldy Bayesian solution

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JAGS code for the RB-BRM with variable dispersion

```
model {
  for(i in 1:N) {
    y[i] ~ dbeta(a[i],b[i]);
    a[i] <- mu[i]*phi[i];
    b[i] <- phi[i]*(1-mu[i]);
    for (j in 1:T1){
      c[i,j] <- x[i,j]*beta[j];
    }
    logit(mu[i]) <- beta0+sum(c[i,]);
    for (k in 1:S){
      d[i,k] <- z[i,k]*gam[k];
    }
    log(phi[i]) <- gam0+sum(d[i,]);
  }
  dofb0 ~ dunif(2,100);
  beta0 ~ dt(0,1000,dofb0);
  for (j in 1:T1){
    dofb[j] ~ dunif(2,100);
    beta[j] ~ dt(0,1000,dofb[j]);
  }
  dofg0 ~ dunif(2,100);
  gam0 ~ dt(0,1000,dofg0);
  for (j in 1:S){
    dofg[j] ~ dunif(2,100);
    gam[j] ~ dt(0,1000,dofg[j]);
  }
}
```

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