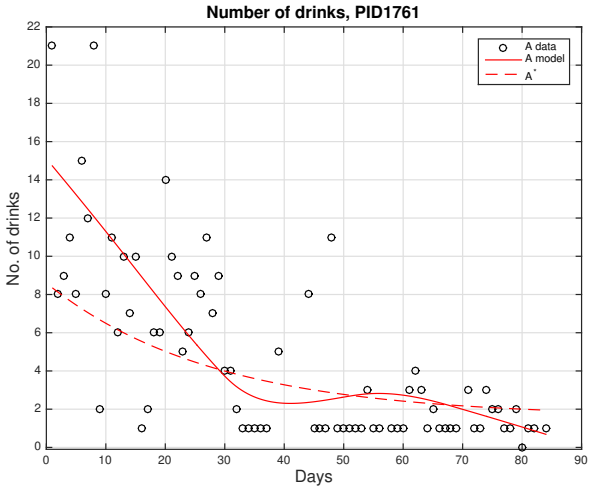
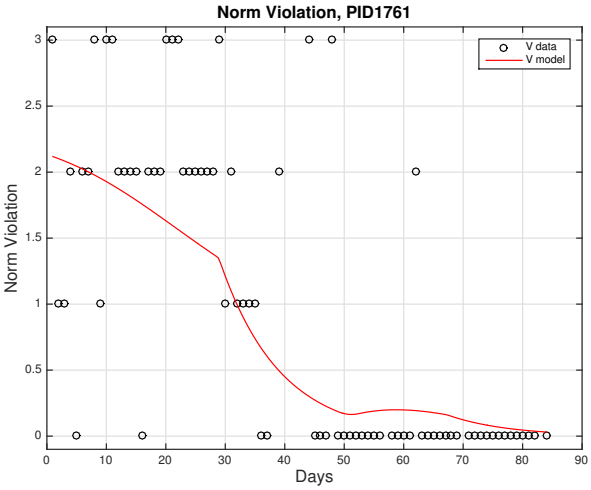
Supplemental Material

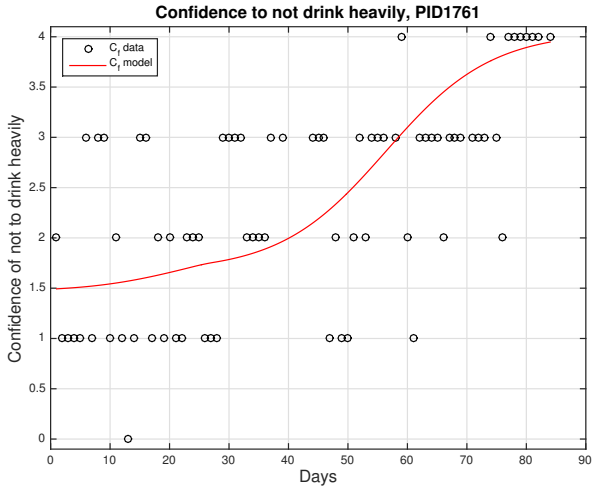
PID 1761



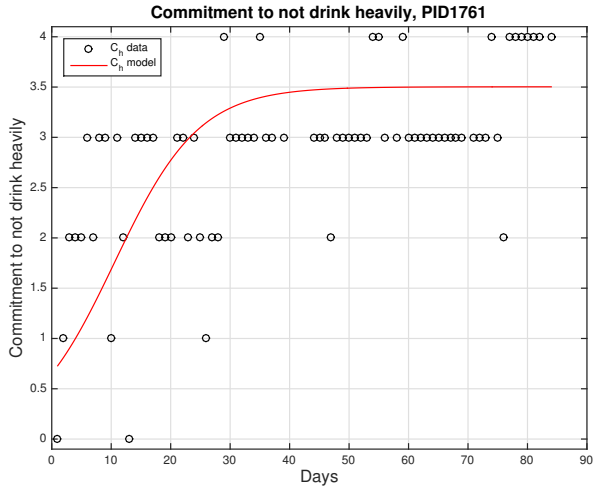
(a) Alcohol Consumption



(b) Norm Violation

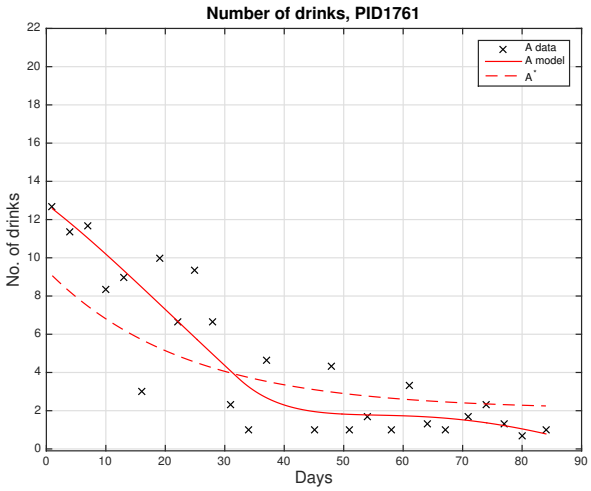


(c) Confidence

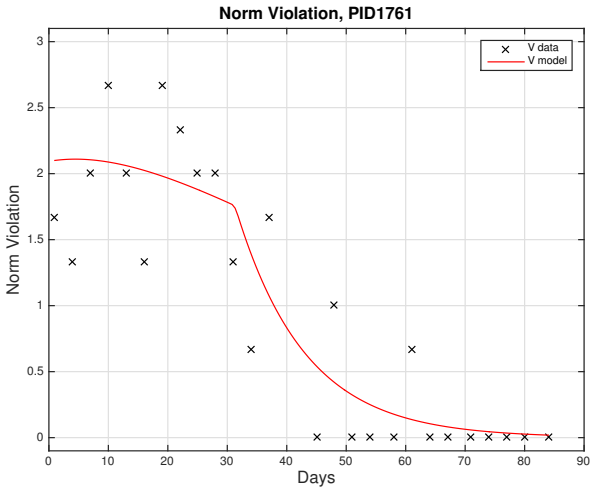


(d) Commitment

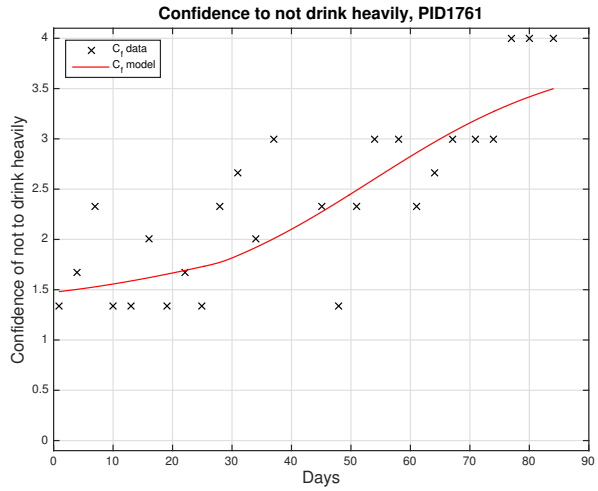
Figure 1: PID 1761 data and model solution. Estimated parameter values are $a_1 = 0.592$, $a_2 = 0.424$, $a_3 = 0.039$, $a_4 = 0.039$, $v_1 = 0.120$, $v_2 = 0.099$, $d_1 = 0.013$, $d_2 = 0.191$, $b = 6.996$, $r = 0.036$, $l = 1.600$, $m = 0.141$, $k = 3.502$, $A_0 = 14.729$, $V_0 = 2.118$, $C_{f_0} = 1.493$, $C_{h_0} = 0.729$, $\alpha = 1.667$, and $n = 4.050$, with statistical error model weights $\boldsymbol{\gamma} = [0.7, 0, 0, 0]$.



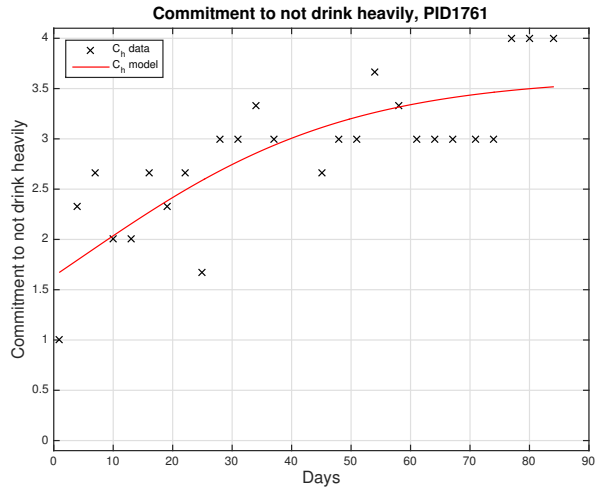
(a) Alcohol Consumption



(b) Norm Violation

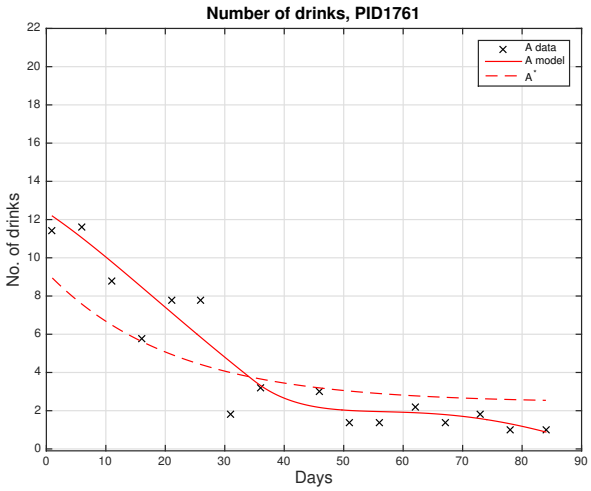


(c) Confidence

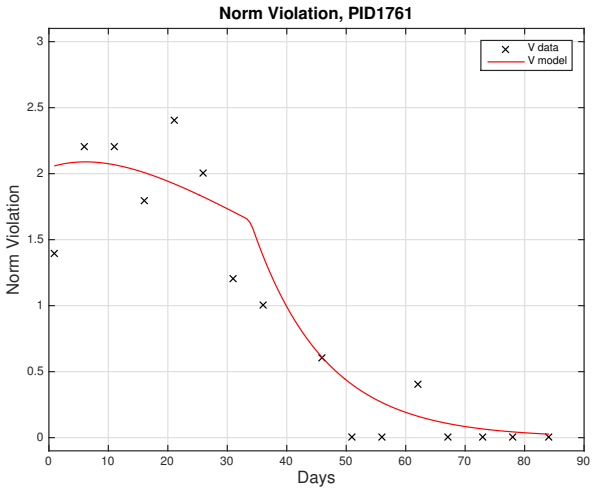


(d) Commitment

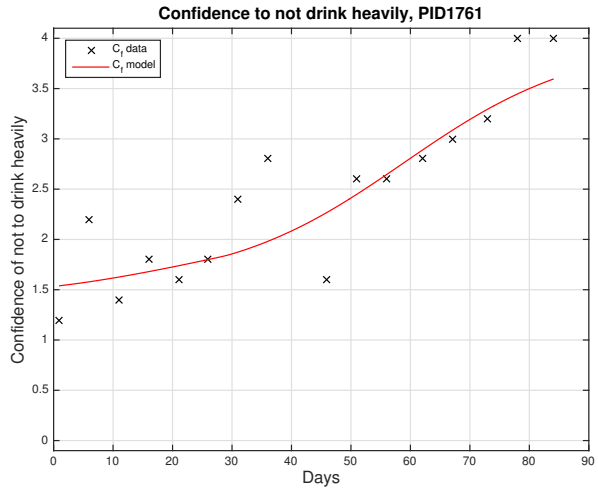
Figure 2: PID 1761 data averaged every 3 days and model solution. Estimated parameter values are $a_1 = 0.476$, $a_2 = 0.271$, $a_3 = 0.048$, $a_4 = 0.031$, $v_1 = 0.099$, $v_2 = 0.086$, $d_1 = 0.017$, $d_2 = 0.087$, $b = 7.319$, $r = 0.043$, $l = 2.055$, $m = 0.045$, $k = 3.618$, $A_0 = 12.572$, $V_0 = 2.100$, $C_{f_0} = 1.482$, $C_{h_0} = 1.675$, $\alpha = 1.287$, and $n = 3.870$, with statistical error model weights $\boldsymbol{\gamma} = [0.6, 0, 0, 0]$.



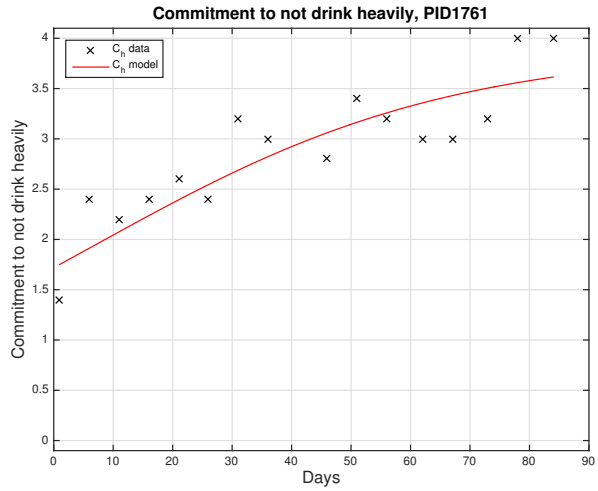
(a) Alcohol Consumption



(b) Norm Violation



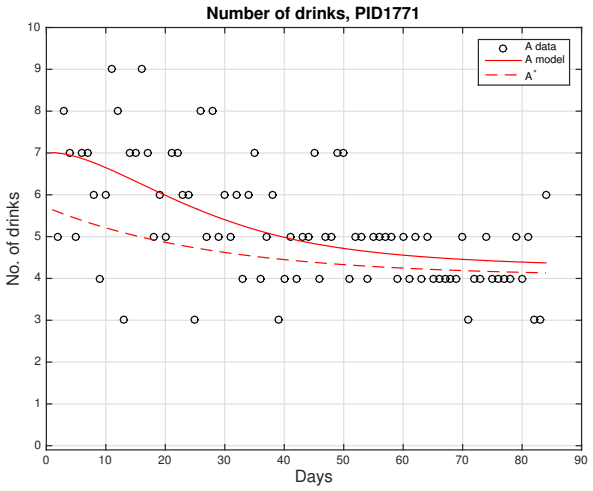
(c) Confidence



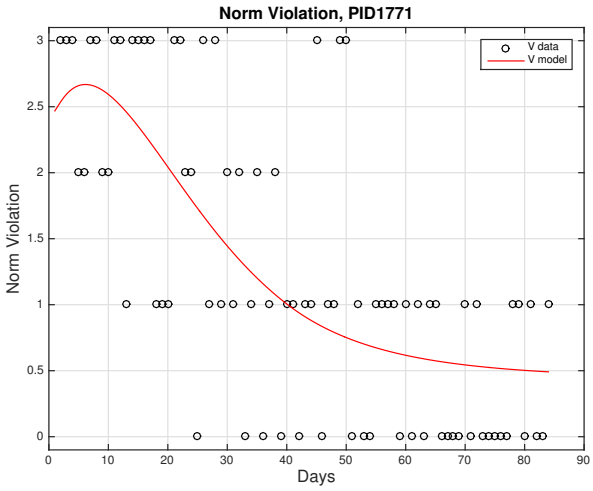
(d) Commitment

Figure 3: PID 1761 data averaged every 5 days and model solution. Estimated parameter values are $a_1 = 0.497$, $a_2 = 0.259$, $a_3 = 0.065$, $a_4 = 0.026$, $v_1 = 0.130$, $v_2 = 0.082$, $d_1 = 0.019$, $d_2 = 0.109$, $b = 6.849$, $r = 0.047$, $l = 2.413$, $m = 0.034$, $k = 3.888$, $A_0 = 12.186$, $V_0 = 2.060$, $C_{f_0} = 1.539$, $C_{h_0} = 1.751$, $\alpha = 1.547$, and $n = 3.977$, with statistical error model weights $\boldsymbol{\gamma} = [0.8, 0.3, 0, 0]$.

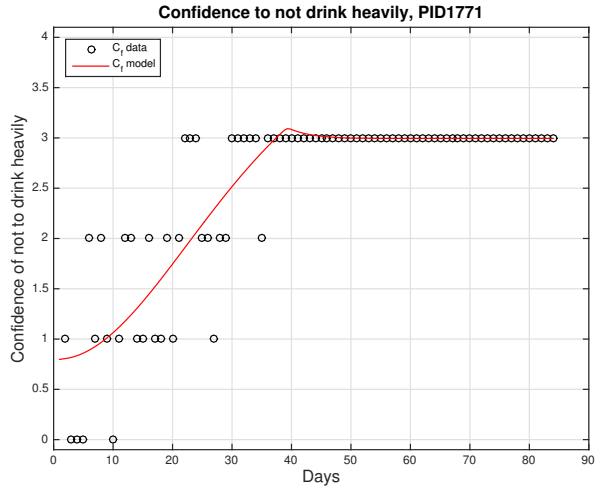
PID 1771



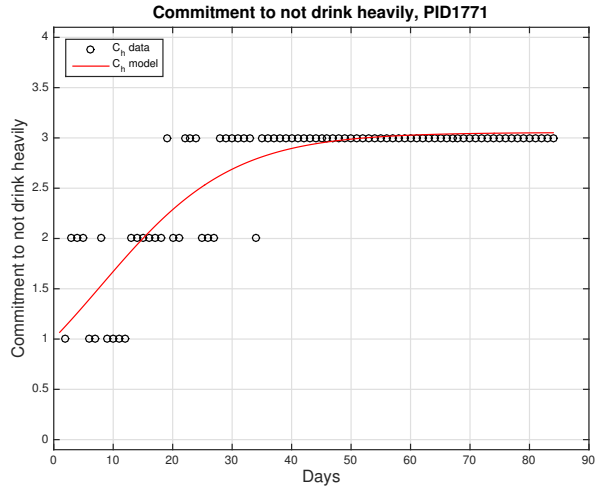
(a) Alcohol Consumption



(b) Norm Violation

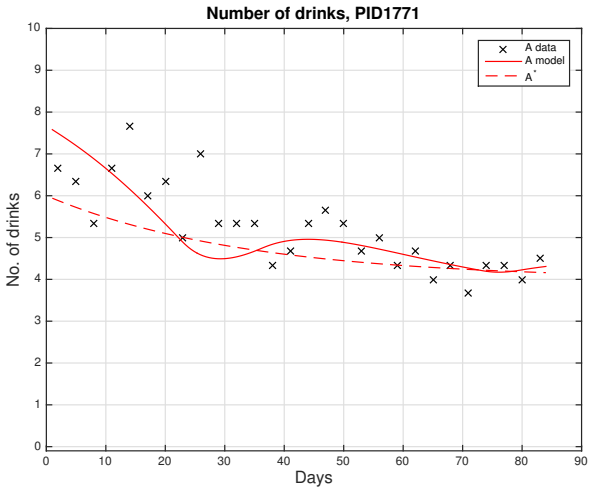


(c) Confidence

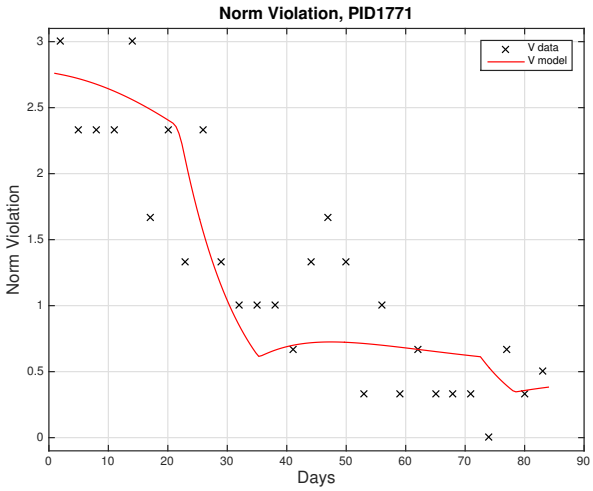


(d) Commitment

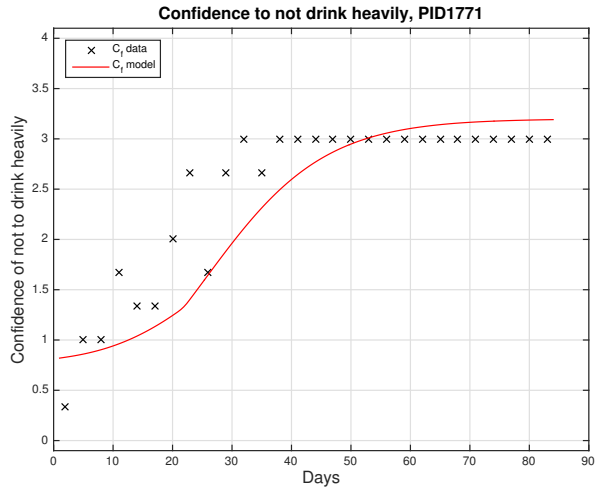
Figure 4: PID 1771 data and model solution. Estimated parameter values are $a_1 = 0.234$, $a_2 = 0.074$, $a_3 = 0.062$, $a_4 = 0.002$, $v_1 = 1.752$, $v_2 = 0.364$, $d_1 = 0.535$, $d_2 = 0.367$, $b = 1.654$, $r = 0.035$, $l = 4.048$, $m = 0.090$, $k = 3.054$, $A_0 = 7.012$, $V_0 = 2.468$, $C_{f_0} = 0.798$, $C_{h_0} = 1.067$, $\alpha = 0.945$, and $n = 2.995$, with statistical error model weights $\boldsymbol{\gamma} = [0, 0, 0, 0]$.



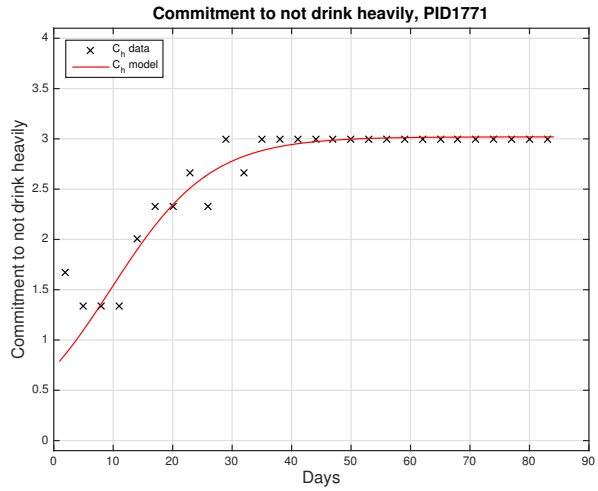
(a) Alcohol Consumption



(b) Norm Violation

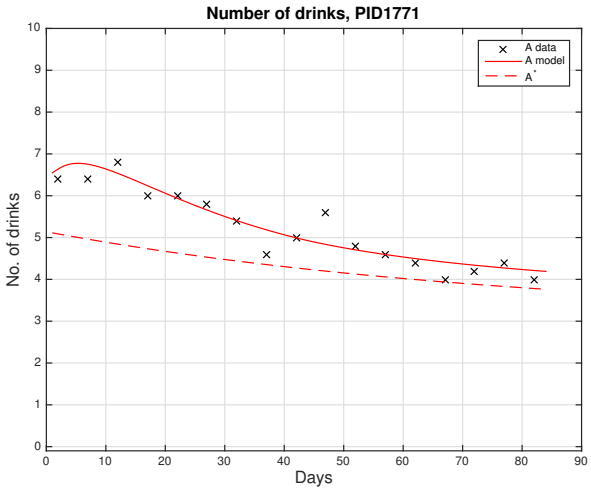


(c) Confidence

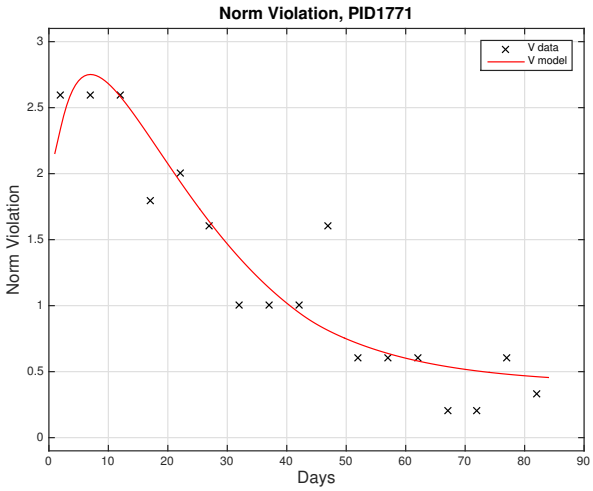


(d) Commitment

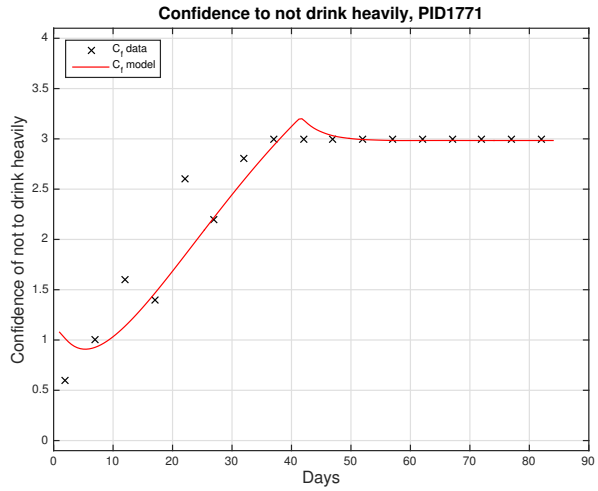
Figure 5: PID 1771 data averaged every 3 days and model solution. Estimated parameter values are $a_1 = 0.480$, $a_2 = 0.190$, $a_3 = 0.037$, $a_4 = 0.029$, $v_1 = 0.250$, $v_2 = 0.100$, $d_1 = 0.120$, $d_2 = 0.100$, $b = 2.000$, $r = 0.030$, $l = 4.000$, $m = 0.120$, $k = 3.020$, $A_0 = 7.580$, $V_0 = 2.760$, $C_{f_0} = 0.820$, $C_{h_0} = 0.790$, $\alpha = 0.003$, and $n = 3.200$, with statistical error model weights $\boldsymbol{\gamma} = [1, 0, 0, 0]$.



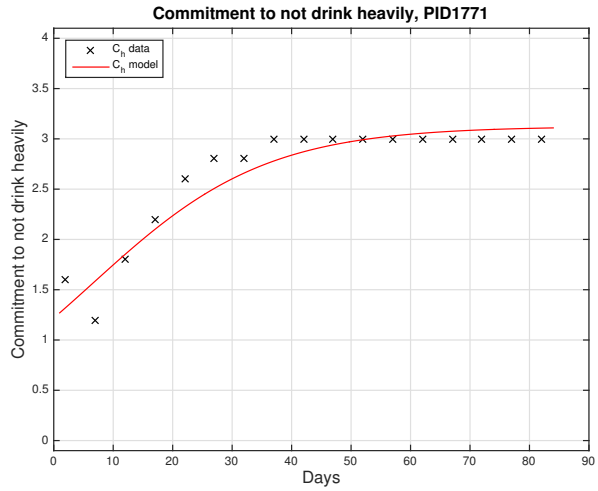
(a) Alcohol Consumption



(b) Norm Violation



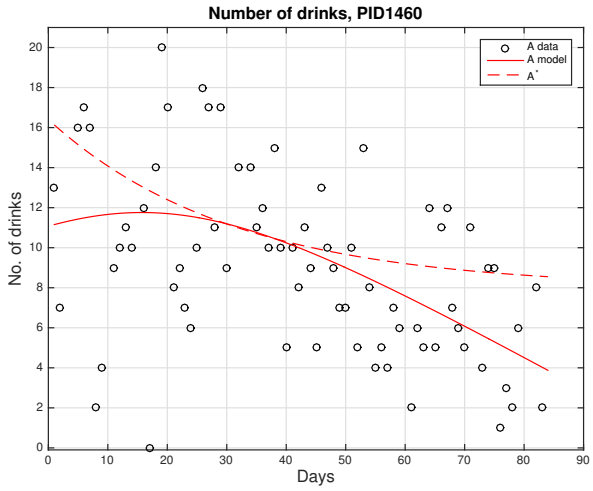
(c) Confidence



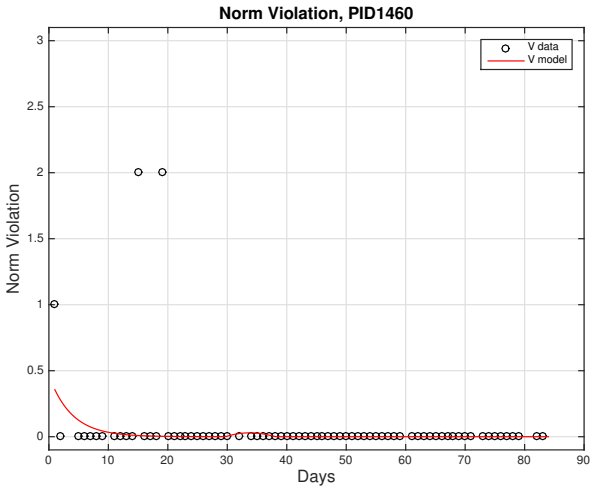
(d) Commitment

Figure 6: PID 1771 data averaged every 5 days and model solution. Estimated parameter values are $a_1 = 0.564$, $a_2 = 0.124$, $a_3 = 0.159$, $a_4 = 0.003$, $v_1 = 1.683$, $v_2 = 0.518$, $d_1 = 0.574$, $d_2 = 0.378$, $b = 2.106$, $r = 0.013$, $l = 3.033$, $m = 0.069$, $k = 3.124$, $A_0 = 6.549$, $V_0 = 2.153$, $C_{f_0} = 1.077$, $C_{h_0} = 1.270$, $\alpha = 0.888$, and $n = 2.984$, with statistical error model weights $\boldsymbol{\gamma} = [0.5, 0.2, 0, 0]$.

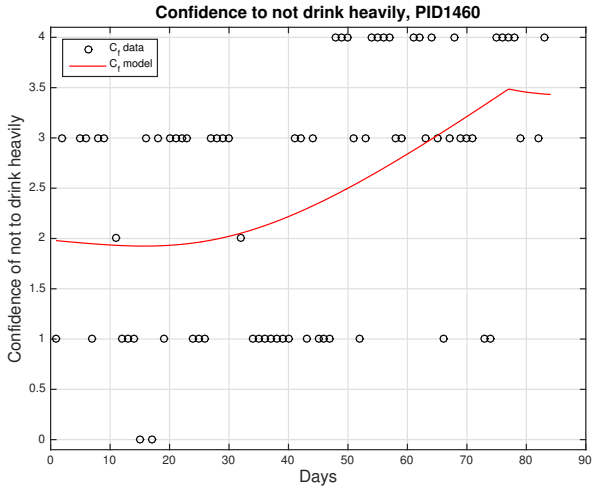
PID 1460



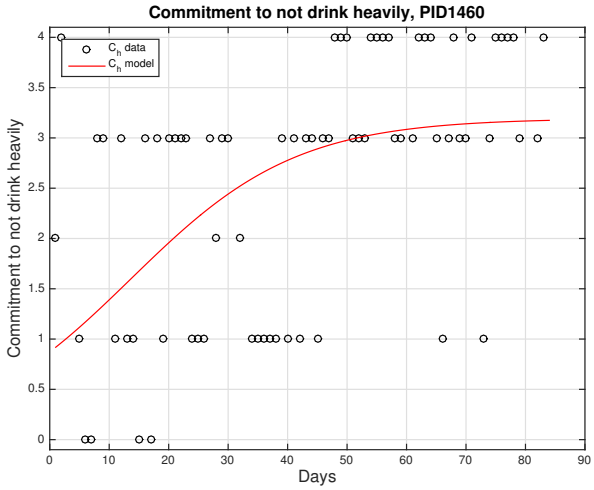
(a) Alcohol Consumption



(b) Norm Violation

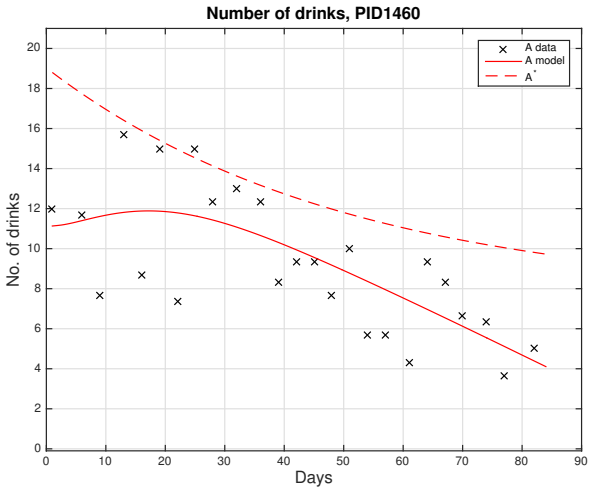


(c) Confidence

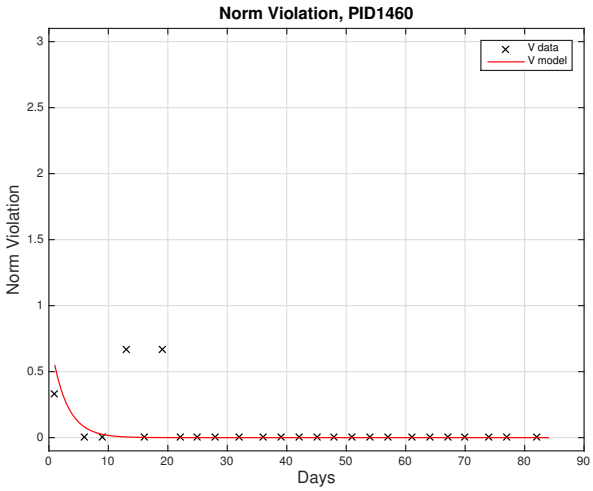


(d) Commitment

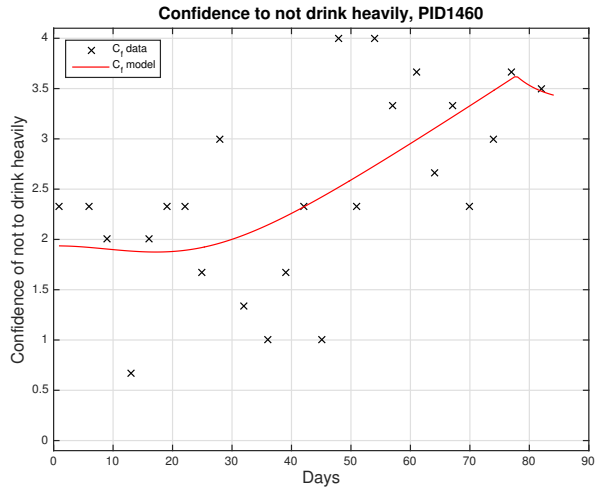
Figure 7: PID 1460 data and model solution. Estimated parameter values are $a_1 = 0.169$, $a_2 = 0.005$, $a_3 = 0.100$, $a_4 = 0.001$, $v_1 = 0.497$, $v_2 = 0.262$, $d_1 = 0.079$, $d_2 = 0.226$, $b = 8.407$, $r = 0.032$, $l = 7.993$, $m = 0.072$, $k = 3.195$, $A_0 = 11.156$, $V_0 = 0.356$, $C_{f_0} = 1.978$, $C_{h_0} = 0.918$, $\alpha = 0.686$, and $n = 3.411$, with statistical error model weights $\boldsymbol{\gamma} = [0.2, 0, 0, 0.3]$.



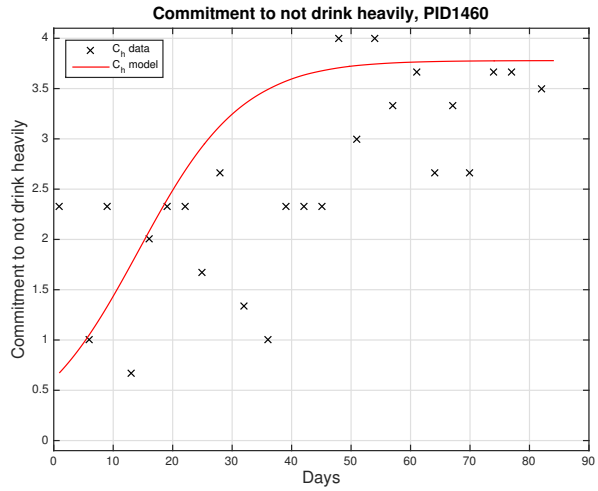
(a) Alcohol Consumption



(b) Norm Violation

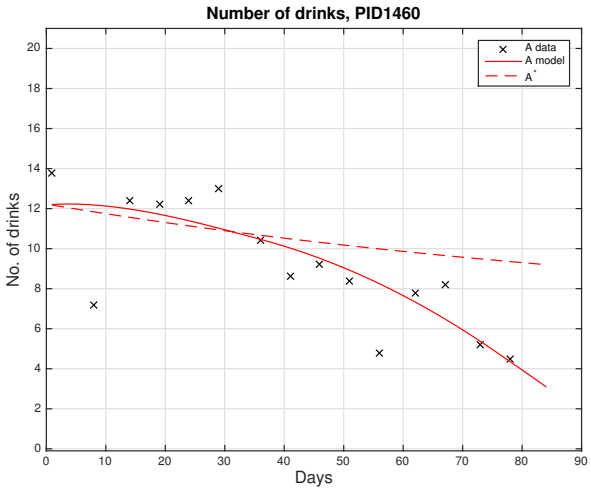


(c) Confidence

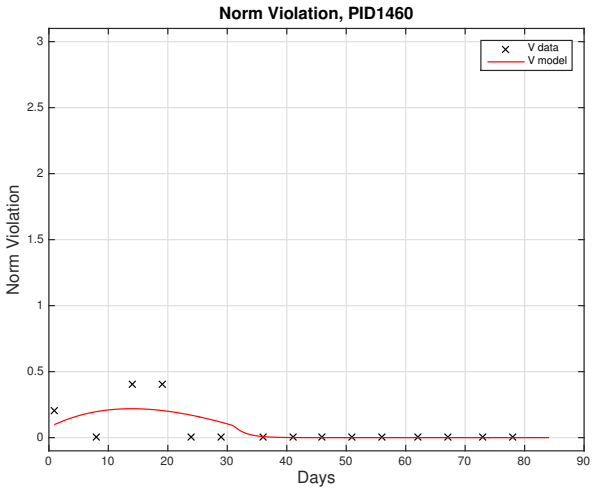


(d) Commitment

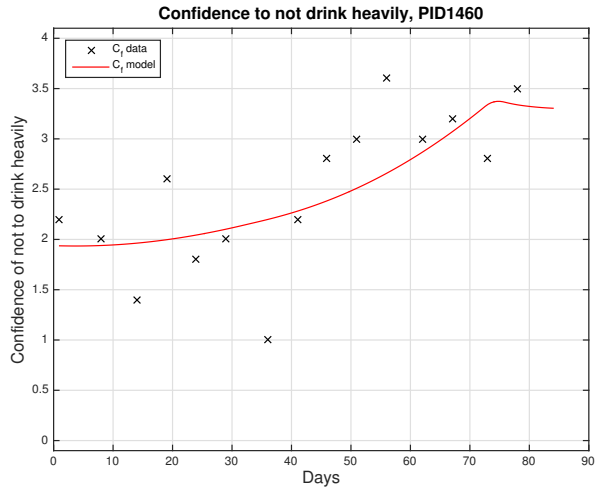
Figure 8: PID 1460 data averaged every 3 days and model solution. Estimated parameter values are $a_1 = 0.170$, $a_2 = 0.156$, $a_3 = 0.078$, $a_4 = 0.001$, $v_1 = 0.249$, $v_2 = 0.384$, $d_1 = 0.071$, $d_2 = 0.223$, $b = 11.442$, $r = 0.020$, $l = 7.586$, $m = 0.115$, $k = 3.779$, $A_0 = 11.131$, $V_0 = 0.547$, $C_{f_0} = 1.936$, $C_{h_0} = 0.676$, $\alpha = 0.759$, and $n = 3.346$, with statistical error model weights $\boldsymbol{\gamma} = [0.7, 0, 0, 0]$.



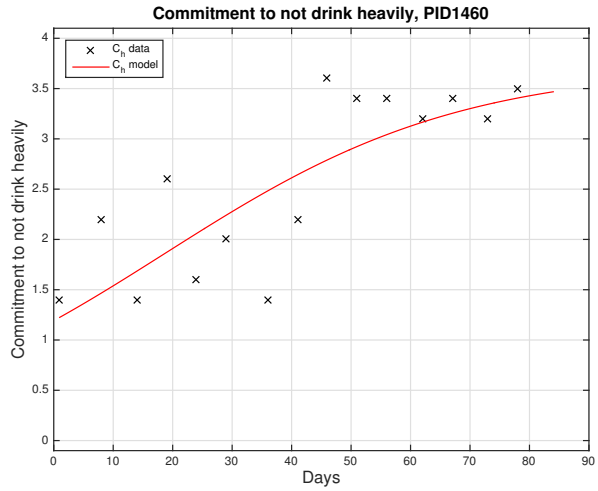
(a) Alcohol Consumption



(b) Norm Violation



(c) Confidence



(d) Commitment

Figure 9: PID 1460 data averaged every 5 days and model solution. Estimated parameter values are $a_1 = 0.127$, $a_2 = 0.173$, $a_3 = 0.057$, $a_4 = 0.012$, $v_1 = 0.313$, $v_2 = 0.488$, $d_1 = 0.075$, $d_2 = 0.256$, $b = 6.022$, $r = 0.008$, $l = 6.204$, $m = 0.040$, $k = 3.718$, $A_0 = 12.210$, $V_0 = 0.101$, $C_{f_0} = 1.936$, $C_{h_0} = 1.225$, $\alpha = 0.749$, and $n = 3.292$, with statistical error model weights $\boldsymbol{\gamma} = [0, 0, 0, 0]$.