

User Input of Scripts for Article Figures: Version pdf v3

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1 Figure 2

1.1 Figure 2a: Control Approach rate (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) n
- iii) Enter tasktypedone (or enter "all" for all task types): P2L1
- iv) Which health types do you want to analyze?
(enter multiple values separated by comma and a space or type 'all' for all types): N/A
- v) Start date? 06/16/2022
- vi) End date? 06/23/2022
- vii) Do you want to split the graph by gender? (y/n) y

1.2 Figure 2b: Control Effect of cost on Approach rate (FvM)

From “Data Analysis” directory run the function,
approachRateAtDifferentCost.

For user inputs please enter the following inputs:

Do you want average plot? (y/n) y

1.3 Figure 2d: Control Distance traveled (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp').

For user inputs please enter the same inputs as **Figure 2a**

1.4 Figure 2e: Control Number of high sp. runs (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('bigaccelerationperunittravel').

For user inputs please enter the same inputs as **Figure 2a**

1.5 Figure 2f: Control Approach time (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('entrytime').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans

ii) Do you want to analyze only approach trials? (y/n/reject) y
For rest of the user inputs please enter the same inputs as in **Figure 2a**

1.6 Figure 2g: Control Prop. of trial out. all reward zones (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('passingcentralzonerejectinitialpresence').
For user inputs please enter the same inputs as **Figure 2a**

1.7 Figure 2h: Control Number of stopping points

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('stoppingpts_per_unittravel_method6').
For user inputs please enter the same inputs as **Figure 2a**

2 Figure 5

2.1 Figure 5a: Approach rate (FD vs Control)

Step 1: Get ‘Ad libitum fed’ figure.

For ‘Ad libitum fed’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) n
- iii) Enter tasktypedone (or enter "all" for all task types): P2L1
- iv) Which health types do you want to analyze?
(enter multiple values separated by comma and a space or type 'all' for all types): N/A
- v) Start date? 06/16/2022
- vi) End date? 06/23/2022
- vii) Do you want to split the graph by gender? (y/n) n
- viii) Do you want to a graph for specific animal? (y/n) n

Step 2: Get ‘Food dep’ figure.

For ‘Food dep’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) n
- iii) Enter tasktypedone (or enter "all" for all task types): P2L1

- iv) Which health types do you want to analyze?
(enter multiple values separated by comma and a space or type 'all' for all types): Food Deprivation
- v) Start date? 08/23/2022
- vi) End date? 08/25/2022
- vii) Do you want to split the graph by gender? (y/n) n
- viii) Do you want to a graph for specific animal? (y/n) n

Step 3: Overlay 'Ad libitum fed' and 'Food dep' figures.

- i) Open *mergePlotsPreserveOriginalColor.m* from 'Plots' directory
- ii) Paste the figures obtained in step 1 and 2 for 'f1' and 'f2'
- iv) Run the script

2.2 Figure 5c: Approach time (FD vs Control)

Step 1: Get 'Ad libitum fed' figure.

For 'Ad libitum fed' From "Data Analysis" directory run the function, *masterPsychometricFunctionPlot('entrytime')*. For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) y

For rest of the user inputs please enter the same inputs as Step1 in **Figure 5a**

Step 2: Get 'Food dep' figure.

For 'Food dep' From "Data Analysis" directory run the function, *masterPsychometricFunctionPlot('entrytime')*.

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) y

For rest of the user inputs please enter the same inputs as Step 2 in **Figure 5a**

Step 3: Overlay 'Ad libitum fed' and 'Food dep' figures.

Please follow the same steps as Step 3 in **Figure 5a**

2.3 Figure 5d: Distance traveled (FD vs Control)

Step 1: Get 'Ad libitum fed' figure.

For 'Ad libitum fed' From "Data Analysis" directory run the function, *masterPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp')*.

For user inputs please enter the same inputs as Step1 in **Figure 5a**

Step 2: Get 'Food dep' figure.

For 'Food dep' From "Data Analysis" directory run the function, *masterPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp')*.

For user inputs please enter the same inputs as Step 2 in **Figure 5a**

Step 3: Overlay ‘*Ad libitum* fed’ and ‘Food dep’ figures.
Please follow the same steps as Step 3 in **Figure 5a**

2.4 Figure 5e: Number of stopping points (FD vs Control)

Step 1: Get ‘*Ad libitum* fed’ figure.

For ‘*Ad libitum* fed’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘*stoppingpts_per_unittravel_method6*’).
For user inputs please enter the same inputs as Step1 in **Figure 5a**

Step 2: Get ‘Food dep’ figure.

For ‘Food dep’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘*stoppingpts_per_unittravel_method6*’).
For user inputs please enter the same inputs as Step 2 in **Figure 5a**

Step 3: Overlay ‘*Ad libitum* fed’ and ‘Food dep’ figures.
Please follow the same steps as Step 3 in **Figure 5a**

2.5 Figure 5f: Number of high sp. runs (FD vs Control)

Step 1: Get ‘*Ad libitum* fed’ figure.

For ‘*Ad libitum* fed’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘*bigaccelerationperunittravel*’).
For user inputs please enter the same inputs as Step1 in **Figure 5a**

Step 2: Get ‘Food dep’ figure.

For ‘Food dep’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘*bigaccelerationperunittravel*’).
For user inputs please enter the same inputs as Step 2 in **Figure 5a**

Step 3: Overlay ‘*Ad libitum* fed’ and ‘Food dep’ figures.
Please follow the same steps as Step 3 in **Figure 5a**

2.6 Figure 5g: Prop. of trial out. all reward zones (FD vs Control)

Step 1: Get ‘*Ad libitum* fed’ figure.

For ‘*Ad libitum* fed’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘*passingcentralzonerejectinitialpresence*’).
For user inputs please enter the same inputs as Step1 in **Figure 5a**

Step 2: Get ‘Food dep’ figure.
 For ‘Food dep’ From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘passingcentralzonerejectinitialpresence’).
 For user inputs please enter the same inputs as Step 2 in **Figure 5a**

Step 3: Overlay ‘Ad libitum fed’ and ‘Food dep’ figures.
 Please follow the same steps as Step 3 in **Figure 5a**

3 Figure 6

3.1 Figure 6a: Self admin oxycodone Approach rate (FvM)

Step 1: Get ‘Self admin. oxy’ figure.
 From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘approachavoid’).
 For user inputs please enter the following inputs:
 i) Which data do you want to analyze? Print ”Oxycodon” or ”Incubation”
 Oxycodon
 ii) Do you want to analyze only approach trials? (y/n) n
 iii) Do you want to split the graph by gender? (y/n) y

Step 2: Get ‘Control’ figure.
 Use same steps as **Figure 2a**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
 Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.2 Figure 6b: Self admin oxycodone Distance traveled (FvM)

Step 1: Get ‘Self admin. oxy’ figure.
 From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).
 For user inputs please enter the same inputs as **Figure 6a**.

Step 2: Get ‘Control’ figure.
 Use same steps as **Figure 2d**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
 Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.3 Figure 6c: Self admin oxycodone Number of high sp. runs (FvM)

Step 1: Get ‘Self admin. oxy’ figure.

From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘bigaccelerationperunittravel’).

For user inputs please enter the same inputs as **Figure 6a**.

Step 2: Get ‘Control’ figure.

Use same steps as **Figure 2e**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.

Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.4 Figure 6d: Abstinence Approach rate (FvM)

Step 1: Get ‘Abstinence’ figure.

From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘approachavoid’).

For user inputs please enter the following inputs:

- i) Which data do you want to analyze? Print "Oxycodon" or "Incubation"
Incubation
- ii) Do you want to analyze only approach trials? (y/n) n
- iii) Do you want to split the graph by gender? (y/n) y

Step 2: Get ‘Control’ figure.

Use same steps as **Figure 2a**

Step 3: Overlay ‘Abstinence’ and ‘Control’ figures.

Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.5 Figure 6e: Abstinence Distance traveled (FvM)

Step 1: Get ‘Abstinence’ figure.

From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).

For user inputs please enter the same inputs as **Figure 6d**.

Step 2: Get ‘Control’ figure.

Use same steps as **Figure 2d**

Step 3: Overlay ‘Abstinence’ and ‘Control’ figures.

Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.6 Figure 6f: Abstinence Number of high sp. runs (FvM)

Step 1: Get ‘Abstinence’ figure.

From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot('bigaccelerationperunittravel').
For user inputs please enter the same inputs as **Figure 6d**.

Step 2: Get ‘Control’ figure.

Use same steps as **Figure 2e**

Step 3: Overlay ‘Abstinence’ and ‘Control’ figures.

Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

3.7 Figure 6g: Fraction of sigmoid

From “Data Analysis” directory run the function, *barPlotOfOxy.m*.

3.8 Figure 6n: Individual Oxy, Abstinence plots

Step 1: From “Data Analysis” directory run the function,

masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n) n
- iii) Enter tasktypedone (or enter "all" for all task types): P1L1
- iv) Which health types do you want to analyze?
(enter multiple values separated by comma and a space or type 'all' for all types): N/A
- v) Start date? 05/31/2022
- vi) End date? 05/31/2022
- vii) Do you want to split the graph by gender? (y/n) n
- viii) Do you want to a graph for specific animal? (y/n) y
- ix) Which Animal? ken

Step 2: From “Data Analysis” directory run the function,

masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n) n
- iii) Enter tasktypedone (or enter "all" for all task types): P2L1L2
- iv) Which health types do you want to analyze?
(enter multiple values separated by comma and a space or type 'all' for all types): Incubation 8
- v) Start date? 06/16/2022

- vi) End date? 06/16/2022
- vii) Do you want to split the graph by gender? (y/n) n
- viii) Do you want to a graph for specific animal? (y/n) y
- ix) Which Animal? barbie

Step 3: From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘approchavoid’).

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n) n
- iii) Enter tasktypedone (or enter ”all” for all task types): P1L1
- iv) Which health types do you want to analyze?
 (enter multiple values separated by comma and a space or type ’all’ for all types): Oxy 7
- v) Start date? 06/01/2022
- vi) End date? 06/01/2022
- vii) Do you want to split the graph by gender? (y/n) n
- viii) Do you want to a graph for specific animal? (y/n) y
- ix) Which Animal? slinky

Now overlay these 3 plots.

4 Supplemental Figure 2

4.1 Figure S.2b: Individual approach rate at cost level

From “Data Analysis” directory run the function,
approachRateAtDifferentCost.

For user inputs please enter the following inputs:

Do you want average plot? (y/n) n

4.2 Figure S.2c: Individual approach rate at cost level

From “Data Analysis” directory run the function,

4.3 Figure S.2i: Control Distance traveled, approach only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).

For user inputs please enter the following inputs:

- i) Enter genotype: CRL: Long Evans
- ii) Do you want to analyze only approach trials? (y/n/reject) y

For rest of the user inputs please enter the same inputs as **Figure 2a**

4.4 Figure S.2j: Control Number of stopping points, approach only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘stoppingpts_per_unittravel_method6’).
For rest of the user inputs please enter the same inputs as **Figure S.2i**

4.5 Figure S.2k: Control Number of high sp. runs, approach only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘bigaccelerationperunittravel’).
For user inputs please enter the same inputs as **Figure 2i**

4.6 Figure S.2l: Control Prop. of trial out. all reward zones, approach only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘passingcentralzonerejectinitialpresence’).
For user inputs please enter the same inputs as **Figure 2i**

4.7 Figure S.2m: Control Number of high sp. runs, reject only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘bigaccelerationperunittravel’).
For user inputs please enter the following inputs:
i) Enter genotype: CRL: Long Evans
ii) Do you want to analyze only approach trials? (y/n/reject) reject
For rest of the user inputs please enter the same inputs as **Figure 2a**

4.8 Figure S.2n: Control Distance traveled, reject only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).
For user inputs please enter the same inputs as **Figure S.2m**

4.9 Figure S.2o: Control Number of stopping points, reject only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('stoppingpts_per_unittravel_method6').
For user inputs please enter the same inputs as **Figure S.2m**

4.10 Figure S.2p: Control Prop. of trial out. all reward zones, reject only (FvM)

From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot('passingcentralzonerejectinitialpresence').
For user inputs please enter the same inputs as **Figure 2m**

5 Supplemental Figure 5

5.1 Figure S.5a. Control vs FD Distance traveled, approach only

Use same steps as in **Figure 5d** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) y
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) y

5.2 Figure S.5b. Control vs FD Number of stopping points, approach only

Use same steps as in **Figure 5e** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) y
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) y

5.3 Figure S.5c. Control vs FD Number of high speed runs, approach only

Use same steps as in **Figure 5f** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) y
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) y

5.4 Figure S.5d. Control vs FD Proportion of trials outside all reward zone, approach only

Use same steps as in **Figure 5g** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) y
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) y

5.5 Figure S.5e. Control vs FD Distance traveled, reject only

Use same steps as in **Figure 5d** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) reject
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) reject

5.6 Figure S.5f. Control vs FD Number of stopping points, reject only

Use same steps as in **Figure 5e** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) reject
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) reject

5.7 Figure S.5g. Control vs FD Number of high speed runs, reject only

Use same steps as in **Figure 5f** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) reject
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) reject

5.8 Figure S.5h. Control vs FD Proportion of trials outside all reward zone, reject only

Use same steps as in **Figure 5g** except the following: 1. In 'Step 1' ii) Do you want to analyze only approach trials? (y/n/reject) reject
2. In 'Step 2' ii) Do you want to analyze only approach trials? (y/n/reject) reject

5.9 Figure S.5i: FD Approach rate (FvM)

Step 1: Get 'FD' figure.

From "Data Analysis" directory run the function,
masterPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) - vi) same as **Figure 5a**.
vii) Do you want to split the graph by gender? (y/n) y

Step 2: Get 'Control' figure.
Use same steps as **Figure 2a**

Step 3: Overlay 'FD' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

5.10 Figure S.5j: FD Distance traveled (FvM)

Step 1: Get 'FD' figure.
From "Data Analysis" directory run the function,
masterPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp').
For user inputs please enter the same inputs as **Supplemental Figure 5i**.

Step 2: Get 'Control' figure.
Use same steps as **Figure 2d**

Step 3: Overlay 'FD' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

5.11 Figure S.5k: FD Number of stopping points (FvM)

Step 1: Get 'FD' figure.
From "Data Analysis" directory run the function,
masterPsychometricFunctionPlot('stoppingpts_per_unittravel_method6').
For user inputs please enter the same inputs as **Supplemental Figure 5i**.

Step 2: Get 'Control' figure.
Use same steps as **Figure 2h**

Step 3: Overlay 'FD' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

5.12 Figure S.5l: FD Number of high sp. runs (FvM)

Step 1: Get 'FD' figure.
From "Data Analysis" directory run the function,
masterPsychometricFunctionPlot('bigaccelerationperunittravel').
For user inputs please enter the same inputs as **Supplemental Figure 5i**.

Step 2: Get 'Control' figure.
Use same steps as **Figure 2e**

Step 3: Overlay 'FD' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

5.13 Figure S.5m: FD Prop. of trial out. all reward zones (FvM)

Step 1: Get 'FD' figure.
From "Data Analysis" directory run the function,
masterPsychometricFunctionPlot('passingcentralzonerejectinitialpresence').
For user inputs please enter the same inputs as **Supplemental Figure 6a**.

Step 2: Get 'Control' figure.
Use same steps as **Figure 2g**

Step 3: Overlay 'FD' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6 Supplemental Figure 6

6.1 Figure S.6a. Approach rate (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.
From "Data Analysis" directory run the function,
oxyPsychometricFunctionPlot('approachavoid').
For user inputs please enter the following inputs:
i) Which data do you want to analyze? Print "Oxycodon" or "Incubation"
Oxycodon
ii) Do you want to analyze only approach trials? (y/n) n
iii) Do you want to split the graph by gender? (y/n) n

Step 2: Get 'Control' figure.
Use same steps as in Step 1 in **Figure 5a**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.
Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.2 Figure S.6b. Distance traveled (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp').

For user inputs please enter the same inputs as **Figure S.6a**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5d**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.3 Figure S.6c. Number of high speed runs (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('bigaccelerationperunittravel').

For user inputs please enter the same inputs as **Figure S.6a**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5f**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.4 Figure S.6d. Approach time (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('entrytime').

For user inputs please enter the same inputs as **Figure S.6a** except

ii) Do you want to analyze only approach trials? (y/n) y

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5c**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.5 Figure S.6e. Proportion of trials outside all reward zone (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('passingcentralzonerejectinitialpresence').

For user inputs please enter the same inputs as **Figure S.6a**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5g**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.6 Figure S.6f. Number of stopping points (Control vs Self admin. Oxy)

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('stoppingpts_per_unittravel_method6').

For user inputs please enter the same inputs as **Figure S.6a**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5e**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.7 Figure S.6g. Approach rate (Control vs Abstinence)

Step 1: Get 'Abstinence' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('approachavoid').

For user inputs please enter the following inputs:

- i) Which data do you want to analyze? Print "Oxycodon" or "Incubation"
Incubation
- ii) Do you want to analyze only approach trials? (y/n) n
- iii) Do you want to split the graph by gender? (y/n) n

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5a**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.8 Figure S.6h. Distance traveled (Control vs Abstinence)

Step 1: Get 'Abstinence' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('distanceaftertoneuntillimitingtimestamp').

For user inputs please enter the same inputs as **Figure S.6g**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5d**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.9 Figure S.6i. Number of high speed runs (Control vs Abstinence)

Step 1: Get 'Abstinence' figure.

From "Data Analysis" directory run the function,

masterPsychometricFunctionPlot('bigaccelerationperunittravel').

For user inputs please enter the same inputs as **Figure S.6g**

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5f**

Step 3: Overlay 'Self admin. Oxy' and 'Control' figures.

Use *mergePlotsPreserveOriginalColor.m* from 'Plots' directory

6.10 Figure S.6j. Approach time (Control vs Abstinence)

Step 1: Get 'Abstinence' figure.

Step 1: Get 'Self admin. Oxy' figure.

From "Data Analysis" directory run the function,

oxyPsychometricFunctionPlot('entrytime').

For user inputs please enter the same inputs as **Figure S.6g**, except

ii) Do you want to analyze only approach trials? (y/n) y

Step 2: Get 'Control' figure.

Use same steps as in Step 1 in **Figure 5c**

Step 3: Overlay ‘Self admin. Oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.11 Figure S.6k. Proportion of trials outside all reward zone (Control vs Abstinence)

Step 1: Get ‘Abstinence’ figure.
From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘passingcentralzonerejectinitialpresence’).
For user inputs please enter the same inputs as **Figure S.6g**

Step 2: Get ‘Control’ figure.
Use same steps as in Step 1 in **Figure 5g**

Step 3: Overlay ‘Self admin. Oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.12 Figure S.6l. Number of stopping points (Control vs Abstinence)

Step 1: Get ‘Abstinence’ figure.
From “Data Analysis” directory run the function,
masterPsychometricFunctionPlot(‘stoppingpts_per_unittravel_method6’).
For user inputs please enter the same inputs as **Figure S.6g**

Step 2: Get ‘Control’ figure.
Use same steps as in Step 1 in **Figure 5e**

Step 3: Overlay ‘Self admin. Oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.13 Figure S.6m: Self admin oxycodone Approach time (FvM)

Step 1: Get ‘Self admin. oxy’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘entrytime’).
For user inputs please enter the same inputs as **Figure 6a**, except
ii) Do you want to analyze only approach trials? (y/n) y

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2f**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.14 Figure S.6n: Self admin oxycodone Prop. of trial out. all reward zones (FvM)

Step 1: Get ‘Self admin. oxy’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘passingcentralzonerejectinitialpresence’).
For user inputs please enter the same inputs as **Figure 6a**

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2g**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.15 Figure S.6o: Self admin oxycodone Number of stopping points (FvM)

Step 1: Get ‘Self admin. oxy’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘stoppingpts_per_unittravel_method6’).
For user inputs please enter the same inputs as **Figure 6a**

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2h**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.16 Figure S.6p: Abstinence Approach time (FvM)

Step 1: Get ‘Abstinence’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘entrytime’).
For user inputs please enter the same inputs as **Figure 6d**, except
ii) Do you want to analyze only approach trials? (y/n) y

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2f**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.17 Figure S.6q: Abstinence Prop. of trial out. all reward zones (FvM)

Step 1: Get ‘Abstinence’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘passingcentralzonerejectinitialpresence’).
For user inputs please enter the same inputs as **Figure 6d**

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2g**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.18 Figure S.6r: Abstinence Number of stopping points (FvM)

Step 1: Get ‘Abstinence’ figure.
From “Data Analysis” directory run the function,
oxyPsychometricFunctionPlot(‘stoppingpts_per_unittravel_method6’).
For user inputs please enter the same inputs as **Figure 6d**

Step 2: Get ‘Control’ figure.
Use same steps as **Figure 2h**

Step 3: Overlay ‘Self admin. oxy’ and ‘Control’ figures.
Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

6.19 Figure S.6s: Individual fraction of sigmoid (Control vs Oxycodone)

From “Data Analysis” directory run the function,
individualFractionOfSigmoid.m.

6.20 Figure S.6t: Oxycodone I.V. vs Fraction of sigmoid

From “Data Analysis” directory run the function,
pokeCorrelation.m.

7 Supplemental Figure 7

7.1 Figure S.7b: Initial task Approach rate (FvM)

Step 1: Get ‘Initial task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘approachavoid’).

For user inputs please enter the following inputs:

i) Enter genotype: CRL: Long Evans

ii) Do you want to analyze only approach trials? (y/n) n

iii) Enter tasktypedone (or enter ”all” for all task types): P2A

iv) Which health types do you want to analyze?

(enter multiple values separated by comma and a space or type ’all’ for all types): N/A

v) Start date? 09/16/2022

vi) End date? 10/03/2022

vii) Do you want to split the graph by gender? (y/n) y

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2a**

Step 3: Overlay ‘Initial task performance’ and ‘Control’ figures. Use *merge-PlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.2 Figure S.7c: Late task Approach rate (FvM)

Step 1: Get ‘Late task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘approachavoid’).

For user inputs please enter the following inputs:

i) Enter genotype: lg.boost, lg.eto

ii) Do you want to analyze only approach trials? (y/n) n

iii) Enter tasktypedone (or enter ”all” for all task types): P2A

iv) Which health types do you want to analyze?

(enter multiple values separated by comma and a space or type ’all’ for all types): N/A

v) Start date? 11/02/2022

vi) End date? 12/01/2022

vii) Do you want to split the graph by gender? (y/n) y

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2a**

Step 3: Overlay ‘Late task performance’ and ‘Control’ figures. Use *merge-PlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.3 Figure S.7d: Initial task Approach time (FvM)

Step 1: Get ‘Initial task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘entrytime’)

For user inputs please enter the following inputs:

i) Enter genotype: CRL: Long Evans

ii) Do you want to analyze only approach trials? (y/n) y

For rest of the user inputs please enter the same inputs as in **Figure S.7b**

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2f**

Step 3: Overlay ‘Initial task performance’ and ‘Control’ figures. Use *merge-PlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.4 Figure S.7e: Late task Approach time (FvM)

Step 1: Get ‘Late task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘entrytime’)

For user inputs please enter the following inputs:

i) Enter genotype: lg.boost, lg.etoh

ii) Do you want to analyze only approach trials? (y/n) y

For rest of the user inputs please enter the same inputs as in **Figure S.7c**

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2f**

Step 3: Overlay ‘Late task performance’ and ‘Control’ figures. Use *merge-PlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.5 Figure S.7f: Initial task Number of high sp. runs (FvM)

Step 1: Get ‘Initial task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘bigaccelerationperunittravel’).

For user inputs please enter the same inputs as **Figure S.7b**.

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2e**

Step 3: Overlay ‘Initial task performance’ and ‘Control’ figures. Use *merge-PlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.6 Figure S.7g: Late task Number of high sp. runs (FvM)

Step 1: Get ‘Late task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘bigaccelerationperunittravel’).

For user inputs please enter the same inputs as **Figure S.7c**.

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2e**

Step 3: Overlay ‘Late task performance’ and ‘Control’ figures. Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.7 Figure S.7h: Initial task Distance traveled (FvM)

Step 1: Get ‘Initial task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).

For user inputs please enter the same inputs as **Figure S.7b**.

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2d**

Step 3: Overlay ‘Initial task performance’ and ‘Control’ figures. Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.8 Figure S.7i: Late task Distance traveled (FvM)

Step 1: Get ‘Late task performance’ figure. From “Data Analysis” directory run the function,

alcoholPsychometricFunctionPlot(‘distanceaftertoneuntillimitingtimestamp’).

For user inputs please enter the same inputs as **Figure S.7c**.

Step 2: Get ‘Control’ figure. Use same steps as **Figure 2d**

Step 3: Overlay ‘Late task performance’ and ‘Control’ figures. Use *mergePlotsPreserveOriginalColor.m* from ‘Plots’ directory

7.9 Figure S.7j: Fraction of sigmoid (Control vs Alcohol)

From “Data Analysis” directory run the function, *barPlotOfOxy.m*.