

# Basic\_Analyses\_modelEmma

December 29, 2017

## 1 Basic Analyses:

contains: - no-brainer analysis - model parameter plots for Emma's model

GIT SHA: b'e4c1e6e03f13d71eafc9b25443636876b885d26d'

### 1.1 No-Brainer Scores

#### 1.1.1 Gain/Loss Task

```
Out [9]:
```

	MID	nbperf
0	vp06	0.941176
1	vp07	0.970588
2	vp10	1.000000
3	vp11	0.970588
4	vp12	0.941176
5	vp13	0.911765
6	vp15	0.941176
7	vp16	0.970588
8	vp17	0.970588
9	vp18	0.941176
10	vp19	0.647059
11	vp20	0.970588
12	vp22	0.882353
13	vp23_2	0.970588
14	vp25_2	1.000000
15	vp26_2	0.970588
16	vp27_2	1.000000
17	vp28_2	0.852941
18	vp29	0.558824
19	vp30	0.794118
20	vp31	0.823529
21	vp32	0.911765
22	vp33	0.970588
23	vp34	0.911765
24	vp35	1.000000

25	vp36	0.941176
26	vp37	0.970588
27	vp38	0.676471
28	vp39	0.970588
29	vp40	1.000000

### 1.1.2 Shock Task

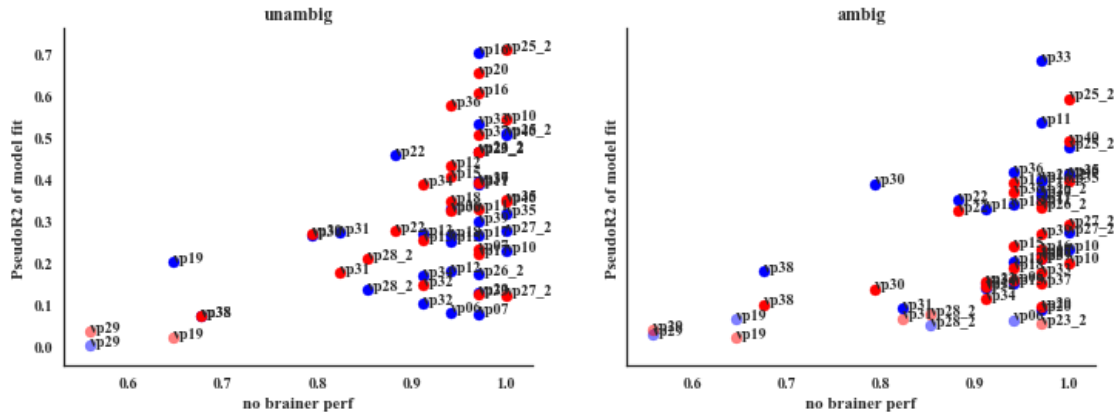
```
Out[12]:
```

	MID	nbperf
0	vp06	0.882353
1	vp07	1.000000
2	vp10	1.000000
3	vp11	1.000000
4	vp12	0.941176
5	vp13	1.000000
6	vp15	0.941176
7	vp16	1.000000
8	vp17	1.000000
9	vp18	1.000000
10	vp19	1.000000
11	vp20	0.882353
12	vp22	0.823529
13	vp23	1.000000
14	vp25	1.000000
15	vp26	0.941176
16	vp27	1.000000
17	vp28	0.882353
18	vp29	0.941176
19	vp30	1.000000
20	vp31	1.000000
21	vp32	1.000000
22	vp33	1.000000
23	vp34	0.941176
24	vp35	0.941176
25	vp36	0.941176
26	vp37	1.000000
27	vp38	0.882353
28	vp39	0.882353
29	vp40	1.000000

## 1.2 No-Brainer vs Model fit

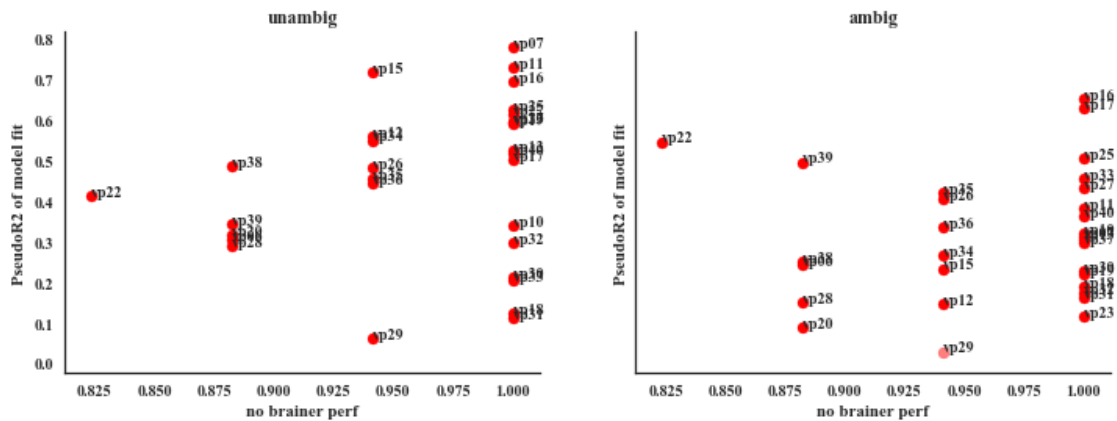
### 1.2.1 gainloss

```
/Users/chris/anaconda/lib/python3.6/site-packages/matplotlib/axes/_axes.py:545: UserWarning: No
warnings.warn("No labelled objects found. ")
```



## 1.2.2 shock

/Users/chris/anaconda/lib/python3.6/site-packages/matplotlib/axes/\_axes.py:545: UserWarning: No  
warnings.warn("No labelled objects found. ")



## 1.3 Within-Subject Ranking

gls = gain > shock > loss etc.

Capture within subject ranking preferences for ambiguity.

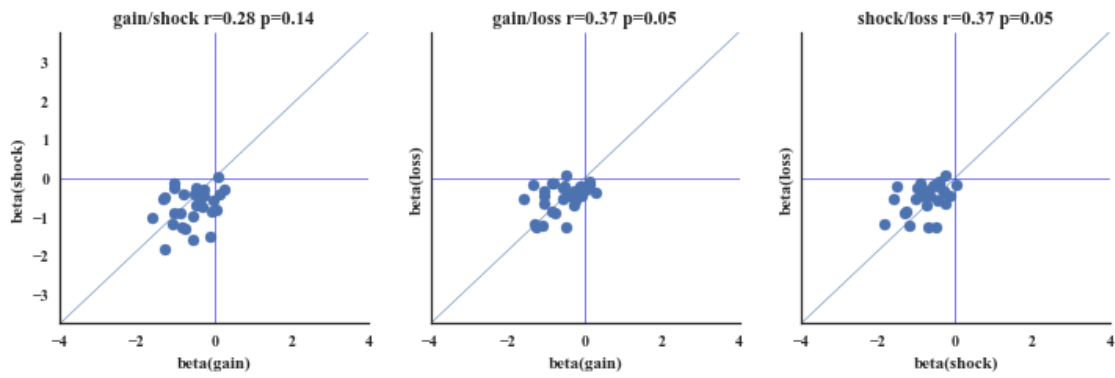
```
Out[35]: order      gls  gsl  lgs  lsg  sgl  slg
parameter
ambiguityLevel  9.0  5.0  4.0  6.0  1.0  2.0
intercept       2.0  0.0  9.0 11.0  0.0  5.0
mag_diff        9.0  5.0  2.0  5.0  4.0  2.0
prob_diff       5.0  6.0  3.0  1.0 10.0  2.0
```

Highly significant chi-squared test for intercept.

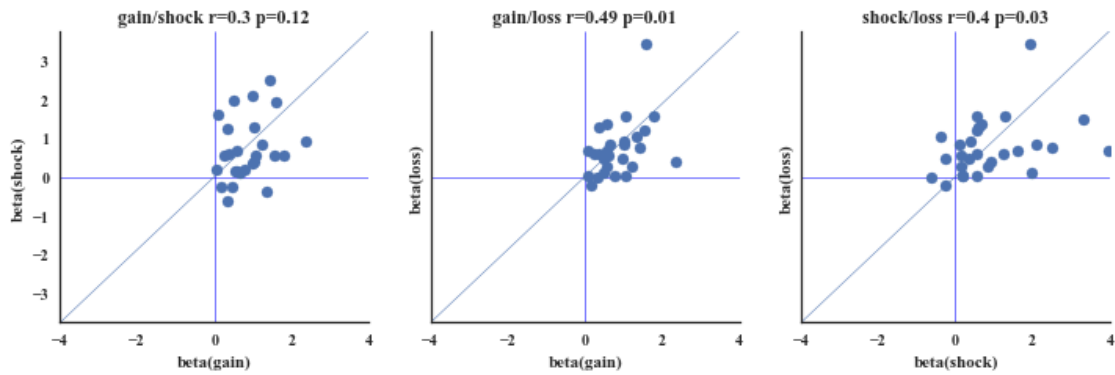
```
Out [36]: Power_divergenceResult(statistic=array([ 9.22222222, 24.33333333, 7.44444444, 11.36342389e-02]))
```

## 1.4 Parameter Correlations Across Task

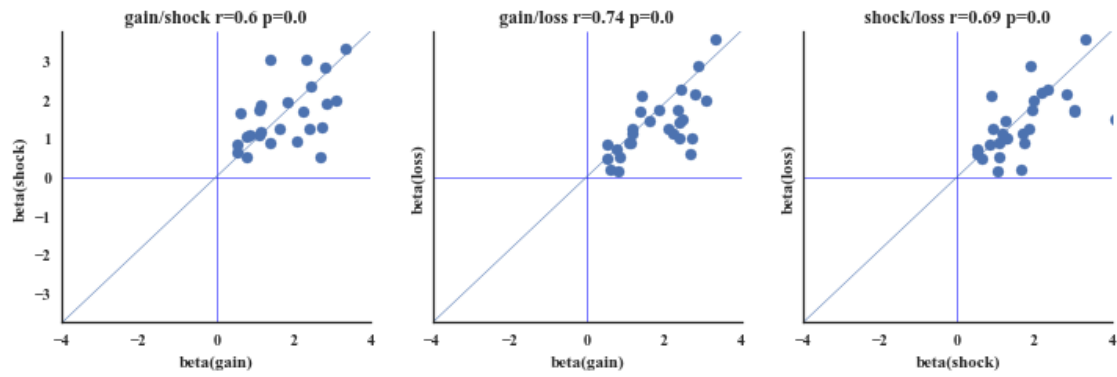
Ambiguity Level



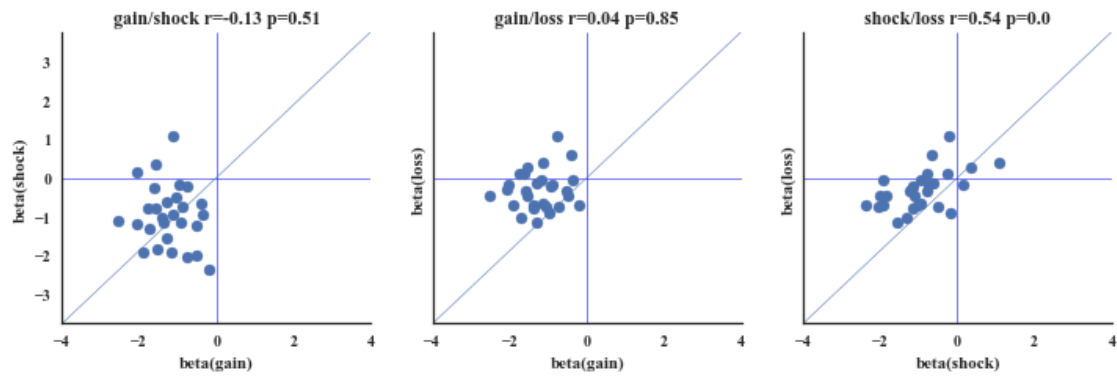
Magnitude Difference



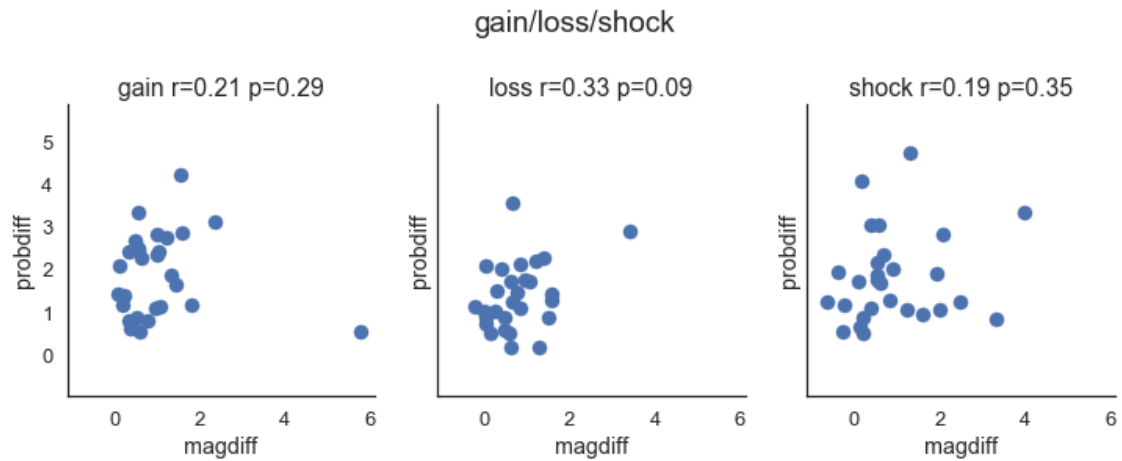
### Probability Difference

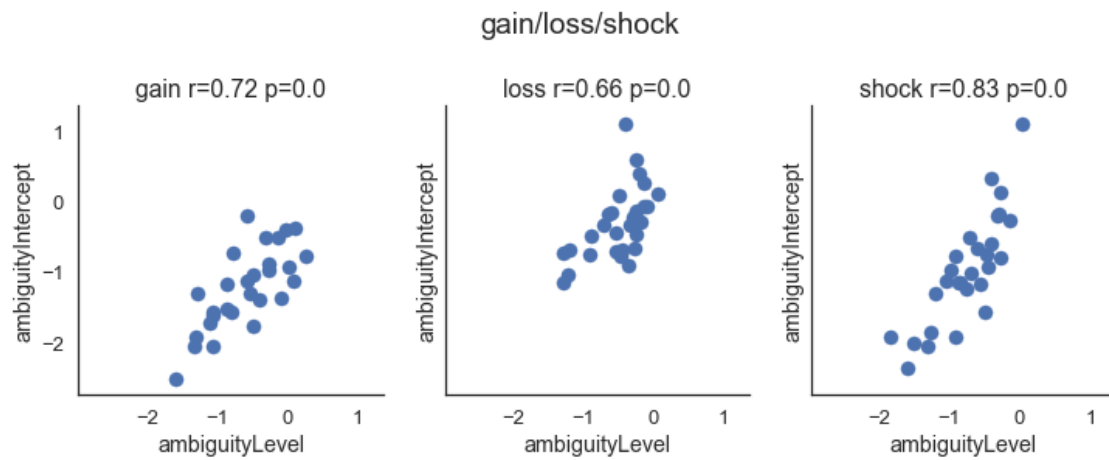


### Ambiguity Presence/Intercept



## 1.5 Parameter Correlation Within Task

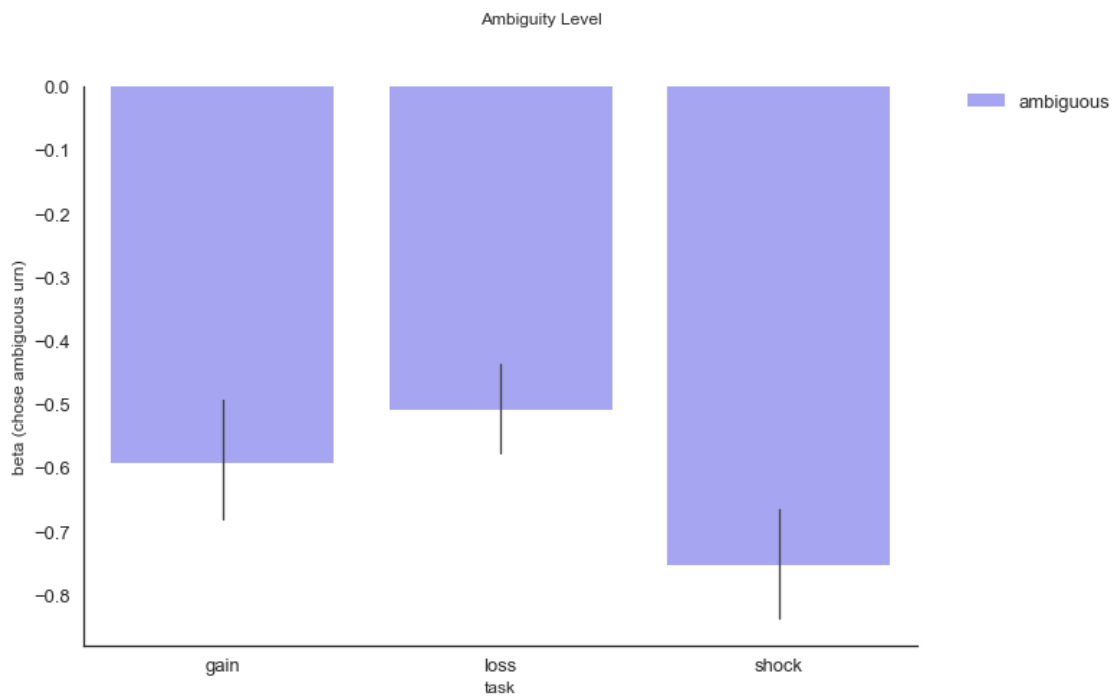




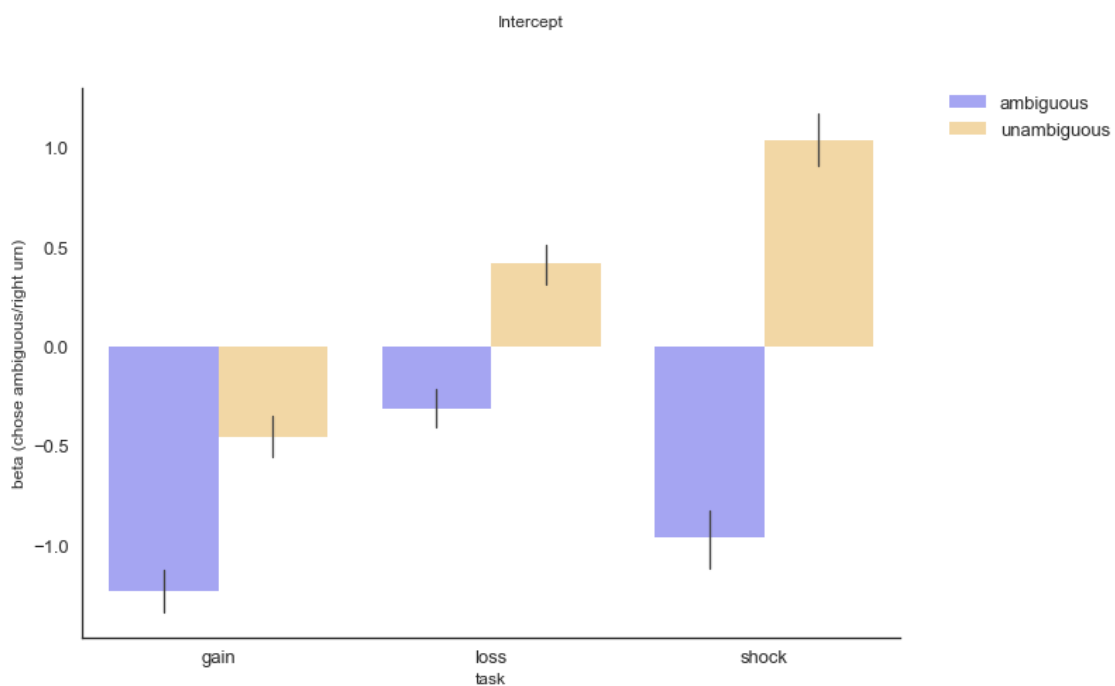
```
Out [200] :      MID      parameter  task      beta      se      condition
1  vp06      intercept  gain -1.759563  0.343866292919  ambiguous
2  vp06      mag_diff   gain  0.362886  0.373872390106  ambiguous
3  vp06      prob_diff  gain  0.618895  0.39654069989   ambiguous
4  vp06  ambiguityLevel  gain -0.476255  0.306502282594  ambiguous
5  vp06      intercept  loss  0.111916  0.25354260985   ambiguous
```

## 1.6 Parameter Bar Plots

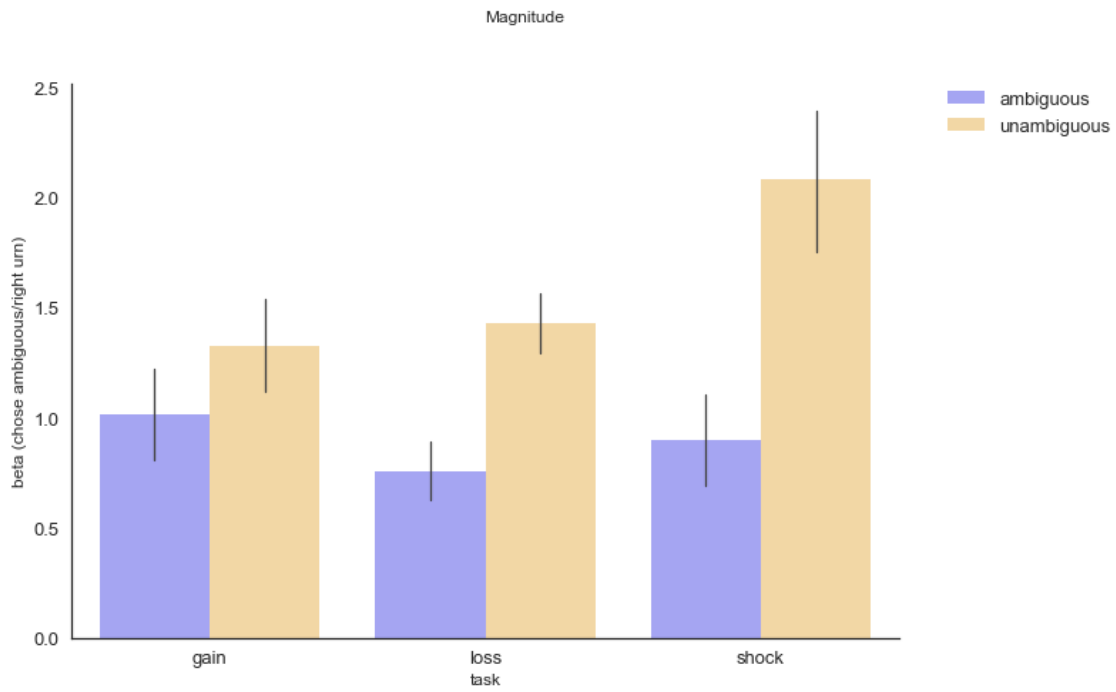
### 1.6.1 Ambiguity level



### 1.6.2 Ambiguity presence



### 1.6.3 Magnitude





## 1.6.4 Probability

