Supporting Text 1

This document provides details on the three different payoff schemes employed by the included studies. In addition, it explains how the data can be read in R, and presents an example of an analysis.

A1 Payoff Schemes

Tables A1-A3 illustrate the payoff schemes classified as payoff scheme 1, 2, and 3, respectively. The difference between payoff scheme 1 and 2 is that the first one uses variable losses in deck C and has a fixed sequence of wins and losses (Table A1), whereas the second one uses a constant loss in deck C and, within each deck, a random repetition of the payoffs presented in Table A2. The third payoff scheme changes rewards and losses in such a way that the net outcome of the bad decks becomes increasingly negative every 10 trials, whereas the net outcome of the good decks becomes increasingly positive. Thus, the difference in the net outcomes of the good and bad decks increases every 10 trials. In addition, in contrast to payoff schemes 1 and 2, the wins differ within each deck in payoff scheme 3. Just as payoff scheme 1, payoff scheme 3 uses a fixed sequence of wins and losses.

Table A1

Rewards and losses from 40 choices of each deck as used in the traditional payoff scheme with variable loss in deck C (see Bechara et al.[1]; classified here as payoff scheme 1). Within each deck, the presented payoff sequence is repeated after participants have made 40 choices from the corresponding deck.

Trial	win A	win B	win C	win D	loss A	loss B	loss C	loss D
1	100	100	50	50	0	0	0	0
2	100	100	50	50	0	0	0	0
3	100	100	50	50	-150	0	-50	0
4	100	100	50	50	0	0	0	0
5	100	100	50	50	-300	0	-50	0
6	100	100	50	50	0	0	0	0
7	100	100	50	50	-200	0	-50	0
8	100	100	50	50	0	0	0	0
9	100	100	50	50	-250	-1250	-50	0
10	100	100	50	50	-350	0	-50	-250
11	100	100	50	50	0	0	0	0
12	100	100	50	50	-350	0	-25	0
13	100	100	50	50	0	0	-75	0
14	100	100	50	50	-250	-1250	0	0
15	100	100	50	50	-200	0	0	0
16	100	100	50	50	0	0	0	0
17	100	100	50	50	-300	0	-25	0
18	100	100	50	50	-150	0	-75	0
19	100	100	50	50	0	0	0	0
20	100	100	50	50	0	0	-50	-250
21	100	100	50	50	0	-1250	0	0
22	100	100	50	50	-300	0	0	0
23	100	100	50	50	0	0	0	0
24	100	100	50	50	-350	0	-50	0

25	100	100	50	50	0	0	-25	0
26	100	100	50	50	-200	0	-50	0
27	100	100	50	50	-250	0	0	0
28	100	100	50	50	-150	0	0	0
29	100	100	50	50	0	0	-75	-250
30	100	100	50	50	0	0	-50	0
31	100	100	50	50	-350	0	0	0
32	100	100	50	50	-200	-1250	0	0
33	100	100	50	50	-250	0	0	0
34	100	100	50	50	0	0	-25	0
35	100	100	50	50	0	0	-25	-250
36	100	100	50	50	0	0	0	0
37	100	100	50	50	-150	0	-75	0
38	100	100	50	50	-300	0	0	0
39	100	100	50	50	0	0	-50	0
40	100	100	50	50	0	0	-75	0

Table A2

A possible sequence of rewards and losses from 10 choices of each deck based on the traditional payoff scheme with constant loss in deck C (see Bechara et al.[1]; classified here as payoff scheme 2). A payoff sequence with the presented characteristics is randomly generated for each block of 10 trials.

Trial	win A	win B	win C	win D	loss A	loss B	loss C	loss D
1	100	100	50	50	0	0	0	0
2	100	100	50	50	-300	0	0	0
3	100	100	50	50	-150	0	-50	0
4	100	100	50	50	0	0	0	0
5	100	100	50	50	-350	0	-50	0
6	100	100	50	50	0	-1250	0	0
7	100	100	50	50	0	0	-50	0
8	100	100	50	50	-250	0	0	0
9	100	100	50	50	0	0	-50	-250
10	100	100	50	50	-200	0	-50	0

Table A3

Rewards and losses from 60 choices of each deck as used in the payoff scheme introduced by Bechara & Damasio ([2]; classified here as payoff scheme 3).

Trial	win A	win B	win C	win D	loss A	loss B	loss C	loss D
1	100	100	50	50	0	0	0	0
2	120	80	60	40	0	0	0	0
3	80	110	40	45	-150		-50	0
4	90	120	55	45	0	0	0	0
5	110	90	55	55	-300	0	-50	0
6	100	100	45	60	0	0	0	0
7	80	90	50	40	-200	0	-50	0
8	120	120	45	55	0	0	0	0
9	110	110	60	50	-250	-1250	-50	0
10	90	80	40	60	-350	0	-50	-250
11	110	110	55	55	0	0	0	0
12	130	100	55	40	-350	0	-25	0
13	90	90	65	60	0	0	-75	0
14	100	130	45	40	-250	-1500	0	0
15	120	120	70	45	-200	0	-25	0
16	110	130	40	55	0	0	0	0

17	90	110	50	65	-300	0	-25	0
18	130	90	60	70	-150	0	-75	0
19	120	100	70	50	-250	0	0	0
20	100	120	40	70	0	0	-50	-275
21	120	120	60	60	-250	-1750	0	0
22	140	110	65	55	-300	0	-25	0
23	110	140	55	65	0	0	0	0
24	110	130	80	80	-350	0	-50	0
25	100	100	40	40	0	0	-25	0
26	120	110	60	80	-200	0	-50	0
27	130	120	55	40	-250	0	0	0
28	110	120	65	65	-150	0	-25	0
29	140	140	40	55	-250	0	-75	-300
30	120	110	80	60	0	0	-50	0
31	130	130	65	65	-350	0	-25	0
32	120	140	75	75	-200	-2000	0	0
33	140	120	55	60	-250	0	-25	0
34	130	110	60	65	-250	0	-25	0
35	110	130	70	75	-150	0	-25	-325
36	150	150	65	85	0	0	0	0
37	140	110	55	45	-150	0	-75	0
38	120	150	75	55	-300	0	-25	0
39	150	120	45	70	-350	0	-50	0
40	110	140	85	55	0	0	-75	0
41	140	140	70	70	-350	0	-25	0
42	130	150	80	80	-200	0	0	0
43	150	130	60	65	-250	0	-25	0
44	140	120	65	70	-250	0	-25	0
45	120	140	75	80	-150	0	-25	-350
46	160	160	70	90	0	-2250	-25	0
47	150	120	60	50	-150	0	-75	0
48	130	160	80	60	-300	0	-25	0
49	160	130	50	75	-350	0	-50	0
50	120	150	90	60	-250	0	-75	0
51	150	150	75	75	-350	0	-25	0
52	140	160	85	85	-200	0	-25	0
53	160	140	65	70	-250	0	-25	0
54	150	130	70	75	-250	0	-25	0
55	130	150	80	85	-150	0	-25	0
56	170	170	75	95	-250	0	-25	0
57	160	130	65	55	-150	0	-75	0
58	140	170	85	65	-300	-2500	-25	-375
59	170	140	55	80	-350	0	-50	0
60	130	160	95	65	-250	0	-75	0

A2 Read Data in R and Example of an Analysis

This section presents R code that can be used to read the data in R, and shows how the data can be used to produce the choice profile of a particular participant. Before using the code, the working directory needs to be changed to the directory containing the .rdata, .txt, and .csv files.

```
# Load the .rdata file. It contains all the matrices and vectors listed in the article
load("IGTdata.rdata")

# Or alternatively, load one of the . txt files
choice_95 <- read.table(file="choice_95.txt", header=T)

# Or alternatively, load one of the .csv files
choice_95 <- read.csv(file="choice_95.csv", header=T)

# Plot the choice profile of the participant saved in the first row of choice_95
plot(choice_95[1,], type="b", bty="n", axes=F, ylab="Choices", xlab="Trial",
cex.lab=1.4, lwd=1.5)
axis(1, 1:95, cex.axis=1.2)
axis(2, at=1:4, labels=c("A", "B", "C", "D"), las=2, cex.axis=1.2)
```

The latter code produces Fig. A1. It shows the choice profile of the first participant of the Fridberg et al. [3] study (i.e., the participant saved in the first row of the choice_95 matrix). From the figure it is evident that this particular participant makes most choices from deck D with occasional switches to deck A.

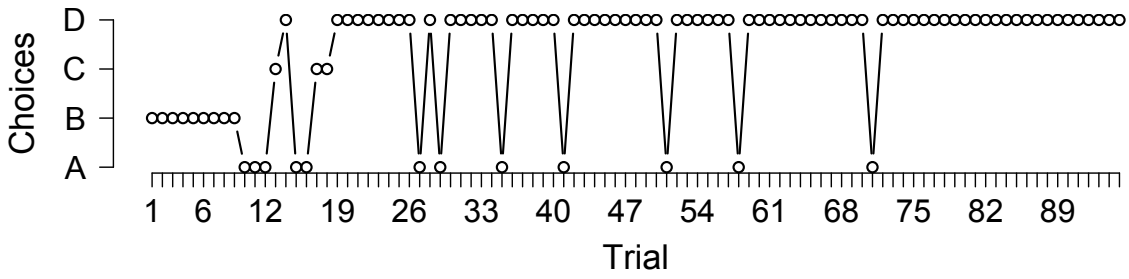

Fig. A1: Choice profile of the participant saved in the first row of the choice_95 matrix.