accframe - Qualitative Analysis

Setup

Honesty Experiment: Qualitative Analysis

Cluster	Representative text for Amount Reason
0	A budget request of 4300 points provides a reasonable buffer over the predicted actual cost of 4100 points, balancing the risk of under-budgeting against maximizing potential payoff.
1	I chose 5750 points to balance maximizing my payoff and providing a reasonable buffer above the predicted actual costs. This ensures a higher certainty of positive personal payoff while still being considerate of the firm's earnings.
2	To maximize my payoff, I have consistently reported 6000 points in previous rounds regardless of the actual number of points. This strategy has resulted in the highest possible gains for me.

Panel A: Round Level

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Pearson's Chi-squared test with Yates' continuity correction
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	Neutral Framing			Business Framing		
	N	Mean	SD	N	Mean	SD
% Truthful	1000	0.075 000 0	0.263 523 1	1000	0.218 000 0	0.413 094 0
% Honest	976	0.259 142 0	0.355 319 2	976	0.606 238 4	0.387 385 5
Cluster 1 - Similarity Score	1000	0.854 080 7	0.099 356 6	1000	0.868 003 0	0.082 945 8
Cluster 2 - Similarity Score	1000	0.793 594 4	0.096 826 1	1000	0.834 260 5	0.077 106 5
Cluster 3 - Similarity Score	1000	0.874 596 4	0.096 189 7	1000	0.850 772 7	0.072 287 9

```
data:  hrounds$truthful and hrounds$experiment
X-squared = 80.632, df = 1, p-value < 2.2e-16


    Pearson's Chi-squared test with Yates' continuity correction

data:  hrounds$truthful and hrounds$experiment
X-squared = 80.632, df = 1, p-value < 2.2e-16


    Welch Two Sample t-test

data:  honesty by experiment
t = -17.117, df = 1543.3, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.3235214 -0.2569958
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.2182947                       0.5085533


    Welch Two Sample t-test

data:  reported_amount_reason_similarity_score_cluster_0 by experiment
t = -1.9737, df = 1701.5, p-value = 0.04858
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -1.750701e-02 -5.477733e-05
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8536458                       0.8624267


    Welch Two Sample t-test

data:  reported_amount_reason_similarity_score_cluster_1 by experiment
t = -10.4, df = 1704.4, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
```

```
 -0.05231387 -0.03571246
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.7934815                      0.8374947


    Welch Two Sample t-test

data:  reported_amount_reason_similarity_score_cluster_2 by experiment
t = 6.673, df = 1699.6, p-value = 3.382e-11
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 0.01929178 0.03535338
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8744411                      0.8471185


    Wilcoxon rank sum test with continuity correction

data:  honesty by experiment
W = 208113, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0
```

	Neutral Framing			Business Framing		
	N	Mean	SD	N	Mean	SD
% Always Truthful	100	0.040 000 0	0.196 946 4	100	0.150 000 0	0.358 870 3
% Honest	100	0.292 800 0	0.333 682 6	100	0.650 400 0	0.352 823 2
% Passed Comprehension Checks	100	0.950 000 0	0.219 042 9	100	0.900 000 0	0.301 511 3
% Classified as Human	100	1.000 000 0	0.000 000 0	100	1.000 000 0	0.000 000 0
Cluster 1 - Similarity Score	100	0.854 080 7	0.043 318 3	100	0.868 003 0	0.035 619 1
Cluster 2 - Similarity Score	100	0.793 594 4	0.044 074 9	100	0.834 260 5	0.040 205 0
Cluster 3 - Similarity Score	100	0.874 596 4	0.040 700 0	100	0.850 772 7	0.029 225 3

Panel B: Participant Level

```
    Pearson's Chi-squared test with Yates' continuity correction

data:  hpart$truthful and hpart$experiment
X-squared = 5.8156, df = 1, p-value = 0.01588
```

```
    Pearson's Chi-squared test with Yates' continuity correction

data:  hpart$passed_cc and hpart$experiment
X-squared = 1.1532, df = 1, p-value = 0.2829
```

```
    Welch Two Sample t-test

data:  sum_honesty by experiment
t = -6.6359, df = 168.75, p-value = 4.208e-10
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.4221677 -0.2285774
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.2633333                       0.5887059
```

```
    Welch Two Sample t-test
```

```
data:  reported_amount_reason_similarity_score_cluster_0 by experiment
t = -1.9737, df = 1701.5, p-value = 0.04858
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -1.750701e-02 -5.477733e-05
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8536458                      0.8624267


    Welch Two Sample t-test

data:  reported_amount_reason_similarity_score_cluster_1 by experiment
t = -10.4, df = 1704.4, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.05231387 -0.03571246
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.7934815                      0.8374947


    Welch Two Sample t-test

data:  reported_amount_reason_similarity_score_cluster_2 by experiment
t = 6.673, df = 1699.6, p-value = 3.382e-11
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 0.01929178 0.03535338
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8744411                      0.8471185


    Wilcoxon rank sum test with continuity correction

data:  sum_honesty by experiment
W = 2014, p-value = 2.441e-09
alternative hypothesis: true location shift is not equal to 0
```

Trust Experiment: Qualitative Analysis

Cluster	Representative Text for Sent Reason
0	To maintain the same strategy of fostering trust and cooperation with Participant B.
1	I chose to send 50 points to maintain consistency with previous rounds, where sending 50 points resulted in a fair return from Participant B, leading to balanced point distribution.
2	Based on previous round's experience, investing 50 points yielded a favorable return, leading to an optimal balance of sharing risk and potential gain.

Cluster	Representative Text for Sent Back Reason
0	Returning 50 points maintains a fair and consistent strategy, ensuring both my payoff and the investor's payoff remain equal, as seen in the previous rounds.
1	To maintain consistency and fairness, as done in all previous rounds.
2	To keep the payoffs fair and balanced just like in the previous rounds.

	Neutral Framing			Business Framing		
	N	Mean	SD	N	Mean	SD
Amount Sent	500	53.920 000 0	10.754 763 1	500	57.890 000 0	14.921 232 7
Amount Returned	500	73.876 000 0	21.264 170 7	500	78.772 000 0	27.461 250 1
% Returned	500	0.454 698 4	0.080 588 1	500	0.451 362 0	0.094 381 1
Cluster 1 - Sent Similarity Score	500	0.501 732 4	0.093 352 5	500	0.527 006 3	0.065 486 8
Cluster 2 - Sent Similarity Score	500	0.848 856 1	0.069 906 6	500	0.849 031 4	0.045 465 6
Cluster 3 - Sent Similarity Score	500	0.847 850 0	0.080 646 4	500	0.888 175 3	0.058 531 9
Cluster 1 - Returned Similarity Score	500	0.879 707 4	0.067 873 9	500	0.886 984 5	0.067 754 1
Cluster 2 - Returned Similarity Score	500	0.848 349 7	0.085 924 4	500	0.871 168 5	0.079 655 2
Cluster 3 - Returned Similarity Score	500	0.837 362 6	0.070 878 1	500	0.832 648 3	0.070 821 3

Panel A: Round Level

```
    Welch Two Sample t-test

data:  sent_amount by experiment
t = -4.8264, df = 907.28, p-value = 1.631e-06
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -5.584355 -2.355645
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                         53.92                          57.89


    Wilcoxon rank sum test with continuity correction

data:  sent_amount by experiment
W = 109404, p-value = 1.056e-06
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  sent_back_amount by experiment
t = -3.1521, df = 939.15, p-value = 0.001672
```

```
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -7.944233 -1.847767
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                        73.876                         78.772


    Wilcoxon rank sum test with continuity correction

data:  sent_back_amount by experiment
W = 114349, p-value = 0.01213
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  pct_returned by experiment
t = 0.60113, df = 974.08, p-value = 0.5479
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.007555278  0.014228088
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.4546984                      0.4513620


    Wilcoxon rank sum test with continuity correction

data:  pct_returned by experiment
W = 129088, p-value = 0.3025
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  sent_reason_similarity_score_cluster_0 by experiment
t = -4.956, df = 894.37, p-value = 8.606e-07
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.03528253 -0.01526518
```

```
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.5017324                      0.5270063


    Wilcoxon rank sum test with continuity correction

data:  sent_reason_similarity_score_cluster_0 by experiment
W = 95727, p-value = 1.454e-10
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  sent_reason_similarity_score_cluster_1 by experiment
t = -0.046998, df = 857.08, p-value = 0.9625
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.007495020  0.007144476
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8488561                      0.8490314


    Wilcoxon rank sum test with continuity correction

data:  sent_reason_similarity_score_cluster_1 by experiment
W = 135711, p-value = 0.01901
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  sent_reason_similarity_score_cluster_2 by experiment
t = -9.0488, df = 910.52, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.04907138 -0.03157930
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8478500                      0.8881753
```

```
    Wilcoxon rank sum test with continuity correction

data:  sent_reason_similarity_score_cluster_2 by experiment
W = 84060, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0



    Welch Two Sample t-test

data:  sent_back_reason_similarity_score_cluster_0 by experiment
t = -1.6967, df = 998, p-value = 0.09006
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.015693491  0.001139242
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8797074                      0.8869845



    Wilcoxon rank sum test with continuity correction

data:  sent_back_reason_similarity_score_cluster_0 by experiment
W = 115874, p-value = 0.04568
alternative hypothesis: true location shift is not equal to 0



    Welch Two Sample t-test

data:  sent_back_reason_similarity_score_cluster_1 by experiment
t = -4.3549, df = 992.33, p-value = 1.47e-05
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.03310127 -0.01253640
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8483497                      0.8711685



    Wilcoxon rank sum test with continuity correction
```

```
data:  sent_back_reason_similarity_score_cluster_1 by experiment
W = 99766, p-value = 3.283e-08
alternative hypothesis: true location shift is not equal to 0
```

```
    Welch Two Sample t-test

data:  sent_back_reason_similarity_score_cluster_2 by experiment
t = 1.0521, df = 998, p-value = 0.293
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.004078802  0.013507443
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8373626                       0.8326483
```

```
    Wilcoxon rank sum test with continuity correction

data:  sent_back_reason_similarity_score_cluster_2 by experiment
W = 132233, p-value = 0.1132
alternative hypothesis: true location shift is not equal to 0
```

Gift Exchange Experiment: Qualitative Analysis

Cluster	Representative Text for Effort Reason
0	I chose the 0.7 multiplier because it offers a decent balance between the cost (10 points) and the potential payoff for Participant A. The cost is manageable, and it ensures that Participant A gets a reasonable payoff, encouraging a fair distribution of points.
1	I have chosen the same effort level as in previous rounds because it results in a balanced payoff for both the manager and the firm. The cost of selecting 0.5 is 6 points, leading to a manager's payoff of 24 points (30 - 6) and a firm's payoff of 35 points ((100 - 30) * 0.5). This effort level has proven to be fair and consistent.
2	I selected a multiplier of 0.3 because it has a moderate cost (2 points), which enables me to balance between earning a decent payoff and incurring a reasonable cost. Additionally, it ensures that Participant A receives a fair payoff.

Cluster	Representative Text for Wage Reason
0	Based on the previous rounds, a wage of 45 points resulted in a consistent effort level of 0.7 from the manager, leading to a satisfactory payoff for both parties. This approach balances incentivizing the manager while maximizing my own payoff.
1	Based on previous rounds, a wage of 45 points has resulted in manager effort levels of 0.4. This seems a consistent choice, ensuring a balanced payoff for both the firm and the manager.
2	Based on previous rounds, sending 50 points seems to result in a good balance between my payoff and Participant B's payoff, assuming they choose a multiplier around 0.5.

	Neutral Framing			Business Framing		
	N	Mean	SD	N	Mean	SD
Effort	500	0.495 400 0	0.142 124 0	500	0.565 800 0	0.151 049 6
Cost	500	5.940 000 0	2.774 129 0	500	7.598 000 0	3.926 222 9
Wage	500	47.598 000 0	9.419 652 6	500	43.186 000 0	11.367 226 2
Payoff Employer	500	25.844 000 0	8.749 100 4	500	31.256 800 0	7.915 569 9
Payoff Employee	500	41.658 000 0	9.586 701 5	500	35.588 000 0	10.412 064 1
Cluster 1 - Effort Similarity Score	500	0.886 487 7	0.047 543 3	500	0.856 250 6	0.039 294 8
Cluster 2 - Effort Similarity Score	500	0.847 866 0	0.048 716 7	500	0.877 637 1	0.048 170 1
Cluster 3 - Effort Similarity Score	500	0.885 066 2	0.056 129 3	500	0.866 143 1	0.061 728 9
Cluster 1 - Wage Similarity Score	500	0.848 519 5	0.063 225 9	500	0.853 331 5	0.046 949 2
Cluster 2 - Wage Similarity Score	500	0.839 658 6	0.069 740 5	500	0.891 745 1	0.058 605 1
Cluster 3 - Wage Similarity Score	500	0.883 828 5	0.069 581 8	500	0.855 270 9	0.055 026 0

Panel A: Round Level

```
    Welch Two Sample t-test

data:  effort by experiment
t = -7.5901, df = 994.32, p-value = 7.343e-14
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.08860133 -0.05219867
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                        0.4954                          0.5658


    Wilcoxon rank sum test with continuity correction

data:  effort by experiment
W = 89534, p-value = 1.338e-15
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test
```

```
data:  wage by experiment
t = 6.6826, df = 964.71, p-value = 3.962e-11
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 3.116372 5.707628
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                        47.598                         43.186


    Wilcoxon rank sum test with continuity correction

data:  wage by experiment
W = 156001, p-value = 9.798e-14
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  payoff_employer by experiment
t = -10.258, df = 988.16, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -6.448227 -4.377373
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                       25.8440                        31.2568


    Wilcoxon rank sum test with continuity correction

data:  payoff_employer by experiment
W = 71228, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  payoff_employee by experiment
t = 9.5899, df = 991.27, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
```

```
95 percent confidence interval:
 4.827915 7.312085
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                        41.658                          35.588


    Wilcoxon rank sum test with continuity correction

data:  payoff_employee by experiment
W = 176509, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  effort_reason_similarity_score_cluster_0 by experiment
t = 10.962, df = 963.83, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 0.02482389 0.03565030
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8864877                       0.8562506


    Wilcoxon rank sum test with continuity correction

data:  effort_reason_similarity_score_cluster_0 by experiment
W = 183088, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  effort_reason_similarity_score_cluster_1 by experiment
t = -9.7168, df = 997.87, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.03578346 -0.02375869
sample estimates:
```

```
 mean in group Neutral Framing mean in group Business Framing
                     0.8478660                       0.8776371


    Wilcoxon rank sum test with continuity correction

data:  effort_reason_similarity_score_cluster_1 by experiment
W = 76124, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  effort_reason_similarity_score_cluster_2 by experiment
t = 5.0716, df = 989.11, p-value = 4.709e-07
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 0.01160113 0.02624512
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8850662                       0.8661431


    Wilcoxon rank sum test with continuity correction

data:  effort_reason_similarity_score_cluster_2 by experiment
W = 148199, p-value = 3.774e-07
alternative hypothesis: true location shift is not equal to 0


    Welch Two Sample t-test

data:  wage_reason_similarity_score_cluster_0 by experiment
t = -1.3663, df = 920.99, p-value = 0.1722
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.011723752  0.002099839
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8485195                       0.8533315
```

```
    Wilcoxon rank sum test with continuity correction

data:  wage_reason_similarity_score_cluster_0 by experiment
W = 123090, p-value = 0.6758
alternative hypothesis: true location shift is not equal to 0



    Welch Two Sample t-test

data:  wage_reason_similarity_score_cluster_1 by experiment
t = -12.785, df = 969.25, p-value < 2.2e-16
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 -0.06008114 -0.04409180
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8396586                      0.8917451



    Wilcoxon rank sum test with continuity correction

data:  wage_reason_similarity_score_cluster_1 by experiment
W = 60249, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0



    Welch Two Sample t-test

data:  wage_reason_similarity_score_cluster_2 by experiment
t = 7.1984, df = 947.66, p-value = 1.239e-12
alternative hypothesis: true difference in means between group Neutral Framing and group Busi
95 percent confidence interval:
 0.02077201 0.03634318
sample estimates:
 mean in group Neutral Framing mean in group Business Framing
                     0.8838285                      0.8552709



    Wilcoxon rank sum test with continuity correction
```

```
data:  wage_reason_similarity_score_cluster_2 by experiment
W = 171875, p-value < 2.2e-16
alternative hypothesis: true location shift is not equal to 0
```