

A Stock Investment Decisions Experiment on the Web

- Regret and Elation -

Part 2

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http://we-by-jiro.net/english/e_main.shtml

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Abstract

This paper reports the results on regret and elation due to stock investment decisions. Two composite hypotheses concerning Judgments and Actions are confirmed in both of the between-subject condition and within-subject condition.

1. Introduction

As the Internet is widely used, psychological experiments, traditionally conducted mainly at classrooms, have begun to be conducted on the Web. For example, the Web site of American Psychological Society (APS) links many experiments and surveys: (1) Biological Psychology /Neuropsychology, (2) Clinical Psychology, (3) Cognition, (4) Developmental Psychology, (5) Emotions, (6) General Issues, (7) Health Psychology, (8) Industrial/Organizational, (9) Personality, (10) Sensation and Perception, (11) Social Psychology (<http://sych.hanover.edu/APS/exponnet.html>).

The author conducted a Web experiment on Ellsberg 3-color-Ball problem to explore the possibilities of the Web experiment during April 1, 1996 - October 31, 1996. The result, with 26 participants, showed the violation of “sure-thing principle” that has been observed at many classroom experiments. It suggests the possibilities of the Web experiment (<http://www.etl.go.jp/~e6930/decision/net-exp/results/1996/results01.shtml>). Moreover, a Web experiment on Japanese version of stock investment decisions confirmed the composite hypotheses on Regret and Elation [1]. A part of Boiney’s classroom experiment was conducted from November 22,

1997 to November 21, 2000 on the Web. We obtained the results similar to Boiney's. The results showed that the effectiveness of psychological experiments on the Internet [2].

This paper reports the results on regret and elation due to stock investment decisions in English version.

2. Hypotheses on Regret and Elation caused by Judgments and Actions

Hypotheses on Judgments

1. Strong elation is caused by your own judgment and success.
2. Weak regret is caused by your own judgment and failure.
3. Weak elation is caused by a judgment based on advice and success.
4. Strong regret is caused by a judgment based on advice and failure.

Hypotheses on Actions

1. Strong elation is caused by action and success.
2. Strong regret is caused by action and failure.
3. Weak elation is caused by inaction and success.
4. Weak regret is caused by inaction and failure.

Kahneman and Tversky [2] confirmed hypothesis on actions (2) in classroom experiments. Shugemasu [3] confirmed hypothesis on decisions (2) and hypothesis on actions (2) in classroom experiments.

We assume, like Kahneman and Tversky, and Shigemasu do, that the estimate of the emotions of regret and elation of other persons that are caused by their virtual actions is the same as the estimate of the emotions of yourselves that are caused by your virtual actions.

Based on the hypotheses and assumption, in the case of failure, the weakest regret is caused by the inaction due to your own judgment, and the strongest regret is caused by the action on the basis of advice. In the case of success, the strongest elation is caused by the action based on your own judgment, and the weakest elation is caused by the inaction on the basis of advice. The composite hypotheses about judgment and action, and the differences between the between-subject condition (Problem 1 and Problem 2) and the within-subject condition (Problem 3 and Problem 4) were studied on the Web.

3. Methods

Four problems 1-4 on stock investment decisions were used in the Web experiment. Problem 1 is a problem about regret and compares "the inaction based on your own judgment" with "the action based on advice." Concretely speaking, the former is "your own judgment and hold," the later is "Advice and switch." Problem 2 is a problem about elation and compares "the action based on your own judgment" with "the inaction based on advice." Concretely speaking, the former is "your own judgment and switch," the later is "Advice and hold." Problem 3 includes Problem 1 and Problem 2 in this order. Problem 4 includes Problem 2 and Problem 1 in this order. Problem 1 and Problem 2 are in the between-subject condition on regret and elation. Problem 3 and Problem 4 are in the within-subject condition. These problems have been put on author's Web site for September 20, 1997 – September 19, 2001. Each participant is guided to one problem among Problem 1 – Problem 4 by using his/her birth-year and month. The announcement of the experiment was posted to Yahoo!, net-news and mailing lists.

Problem 1 (REGRET)

Steve owns shares in Company A. During the past year he considered switching to stock in Company B, but he decided against it based on his own deliberate judgment. He now finds that he would have been better off by \$1,200 if he had switched to the stock of Company B.

Bill owned shares in Company B. During the past year he switched stock in Company A according to his broker's advice. He now finds he would have been better off by \$1,200 if he had kept his stock Company B.

Who feels more regret?

Problem 2 (ELATION)

Steve owned shares in Company B. During the past year he switched to stock in Company A based on his own deliberate judgment. He now finds that he is better off by \$1,200 having switched to the stock of Company A.

Bill owns shares in Company A. During the past year he considered switching to stock in Company B, but he decided against it according to his broker's advice. He now finds that he is better off by \$1,200 having stayed with the stock of Company A.

Who feels more elation?

4. Experimental Results

Table 1- Table 4-2 are observation frequencies, Table 5 is a sex distribution and Table 6 is an age distribution. Each graph of the tables is give in Appendix.

Table 1: Frequencies of answers for Problem 1 (between-subject condition)

Conditions	Regret
Your Own Judgment and Hold (Steve)	29
Advice and Switch (Bill)	83
Total	112

Table 2: Frequencies of Answers for Problem 2 (between-subject condition)

Conditions	Elation
Your Own Judgment and Switch (Steve)	73
Advice and Hold (Bill)	27
Total	100

**Table 3-1: Frequencies of Answers for Problem 3 (the same as Problem 1)
(within-subject condition, in order of regret and elation)**

Conditions	Regret
Your Own Judgment and Hold (Steve)	41
Advice and Switch (Bill)	69
Total	110

**Table 3-2: Frequencies of Answers for Problem 3 (the same as Problem 2)
(within-subject condition, in order of regret and elation)**

Conditions	Elation
Your Own Judgment and Switch (Steve)	91
Advice and Hold (Bill)	19
Total	110

**Table 4-1: Frequencies of Answers for Problem 4 (the same as Problem 2)
(within-subject condition, in order of elation and elation)**

Conditions	Elation
Your Own Judgment and Switch (Steve)	82
Advice and Hold (Bill)	17
Total	99

**Table 4-2: Frequencies of Answers for Problem 4 (the same as Problem 1)
(within-subject condition, in order of elation and elation)**

Conditions	Regret
Your Own Judgment and Hold (Steve)	32
Advice and Switch (Bill)	67
Total	99

Table 5: Sex Distribution

Problem	Male	Female	Total
1	58	54	112
2	49	51	100
3	55	55	110
4	49	50	99
Total	211	210	421

Table 6: Age Distribution

Problem	10's	20's	30's	40's	50's	60's	70's	Average	Minimum	Maximum
1	31	52	17	8	3	0	1	26.2	13	78
2	22	48	15	9	6	0	0	27.5	16	54
3	29	47	22	10	2	0	0	26.1	14	55
4	29	43	14	9	3	0	1	26.4	12	73
Total	111	190	68	36	14	0	2		421	

5. Conclusions

The composite hypotheses were confirmed in the between-subject and within-subject conditions. There is no bias on the sex distribution (Table 5). However, the Japanese versions show bias on the sex distributions [1] - [2]. Table 6 shows that the majority of participants are in 10's and 20's. The

Japanese versions show that the majority of participants are in 20's and 30's [1] - [2].

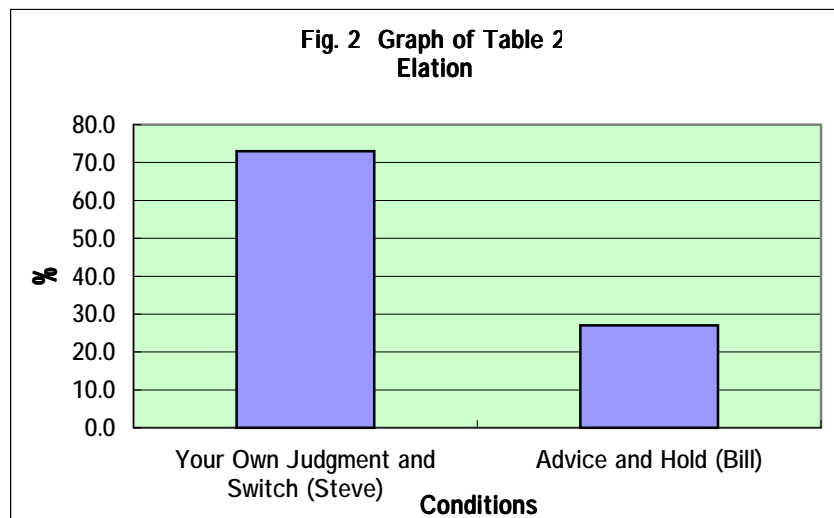
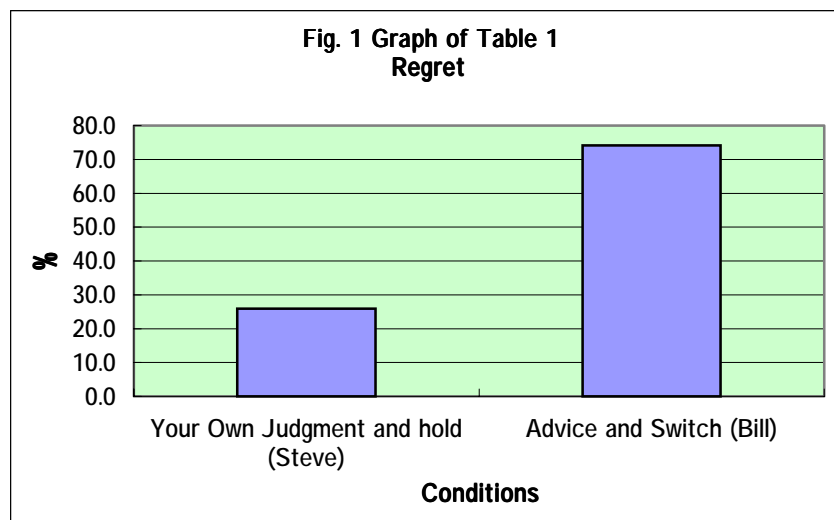
6. Acknowledgment

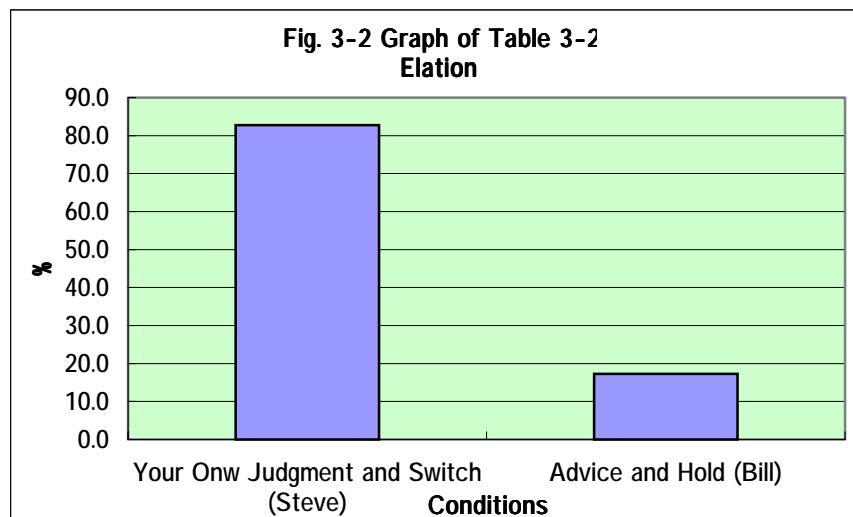
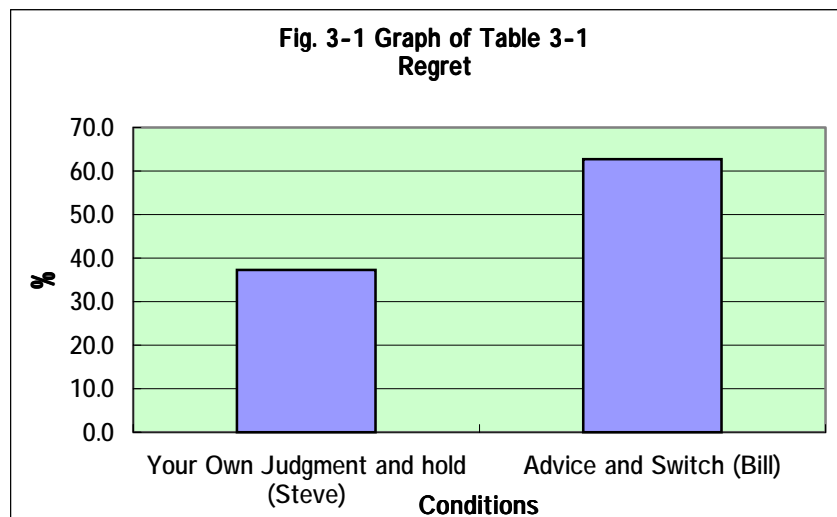
The author thanks many participants for their cooperation.

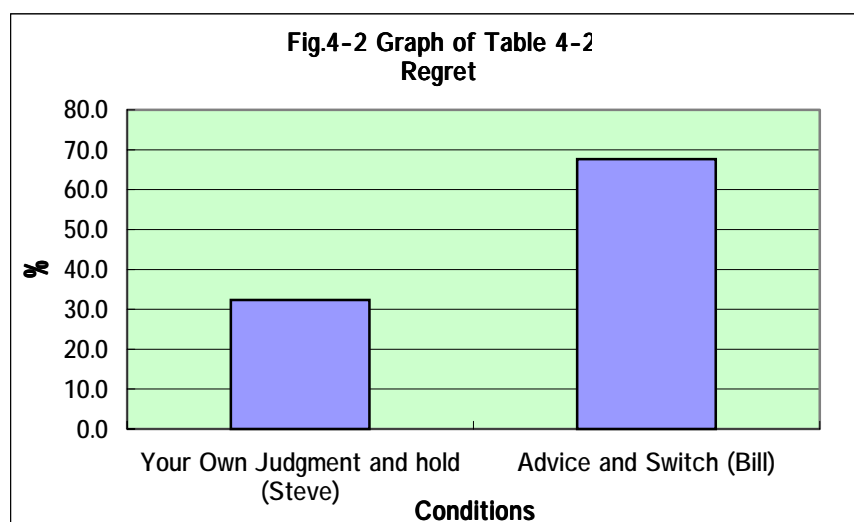
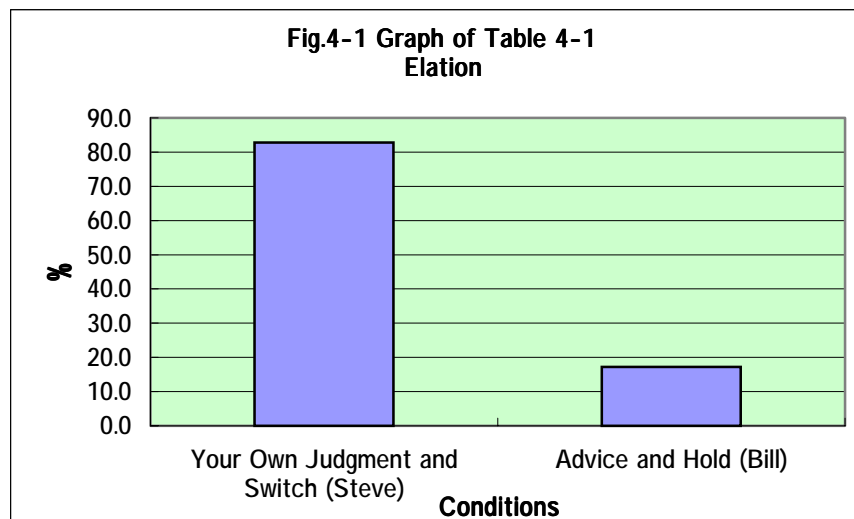
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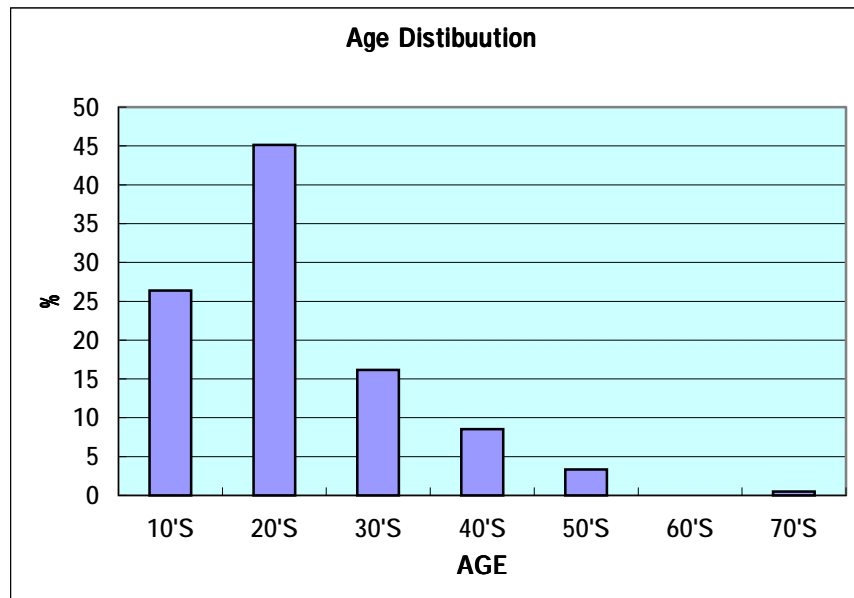
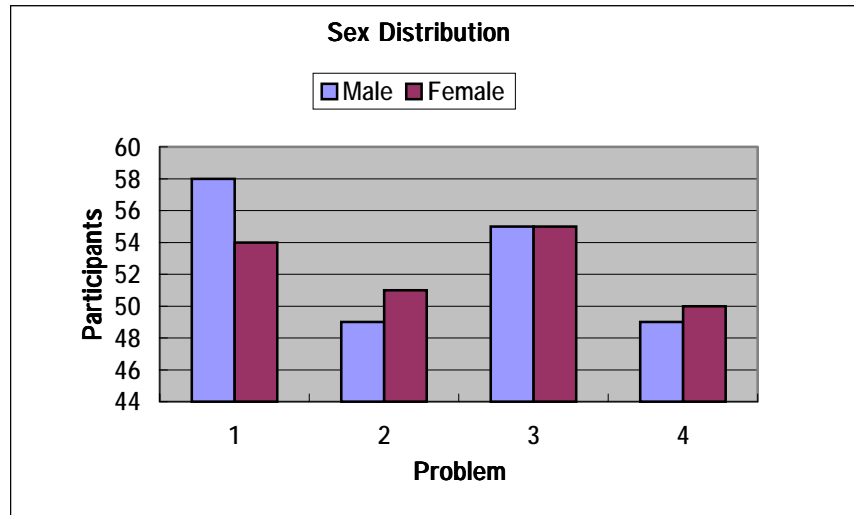
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Appendix









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