# **GCOE Discussion Paper Series**

Global COE Program
Human Behavior and Socioeconomic Dynamics

**Discussion Paper No. 357** 

Why are Cabinet Supporters Happy?

Yoshiro Tsutsui, Shoko Yamane, and Fumio Ohtake

February 2015

GCOE Secretariat
Graduate School of Economics
OSAKA UNIVERSITY
1-7 Machikaneyama, Toyonaka, Osaka, 560-0043, Japan

# Why Are Cabinet Supporters Happy?\*

Yoshiro Tsutsui<sup>†</sup>

Shoko Yamane<sup>‡</sup>

Fumio Ohtake ¶

#### Abstract

Using a monthly survey, this paper finds that supporters of the governing cabinet are significantly happier than non-supporters throughout our sample period. We investigate the reason and examine two hypotheses: 1) happy persons support the ruling Liberal Democratic Party, and 2) supporters of any governing party tend to be happy. Oaxaca decomposition analysis reveals that the difference in happiness is not attributable to the difference of attributes and personalities, rejecting hypothesis 1). On the other hand, the happiness of cabinet and anti-cabinet supporters was not significantly different after an election in which the governing party was replaced, supporting hypothesis 2).

Keywords: happiness; cabinet supporter; Oaxaca decomposition; Japan

JEL Classification numbers: I31; D72

<sup>\*</sup> An earlier version of this paper was presented at Monetary Economic Workshop (MEW). We would like to extend our heartfelt gratitude to the participants for their comments. We would like to acknowledge financial support from the Center of Excellence (COE) program at Osaka University. We are also grateful to Mie Nakai for her excellent research assistance.

<sup>&</sup>lt;sup>†</sup>Faculty of Economics, Konan University, 8-9-1 Okamoto, Higashinada-ku, Kobe, 658-8501 JAPAN, Phone & Fax: +81-78-435-2920, e-mail: tsutsui@center.konan-u.ac.jp

Faculty of Economics, Kinki University, 3-4-1 Kowakae, Higashi-Osaka, Osaka, 577-8502, JAPAN, Phone: +81-6-6721-2332; e-mail: syamane@kindai.ac.jp

Institute of Social and Economic Research, Osaka University, 6-1 Mihogaoka, Ibaraki, 567-0047 Japan, e-mail: ohtake@iser.osaka-u.ac.jp, Phone: +81-6-6879-8572

### 1. Introduction

It is well-known that political institutions and policies play an important role in the happiness of nations. Frey and Stutzer have elucidated how democracy is important to happiness, analyzing the political institutions in Switzerland (Frey and Stutzer 2002a, Frey 2008). Recently, Bok opened up the field of the politics of happiness (Bok 2010). Bok argues that policymakers should use happiness research and in policymaking, and discusses quality of government.

Some studies investigated whether election results make supporters of winning parties happy and those of losing parties unhappy (Gilbert et al. 1998, Wilson et al. 2003, Tsutsui et al. 2010, Kinari et al. 2014, Kimball et al. 2014). Results of these studies suggest that while election results affect supporters' happiness, their happiness returns to its original level in a few days.

We conducted a monthly survey over 32 months from August 2005 to March 2008, and asked respondents about their happiness and party support. Using these data, this paper reports that cabinet supporters and governing party supporters are happier than anti-cabinet people and non-governing party supporters. We then investigate the reason for this fact. There are two possible channels: one is that cabinet supporters are happier because happy persons tend to become cabinet supporters, and the other is that those

who support the current cabinet tend to become happy. This paper examines both of these hypotheses and finds that the latter hypothesis is more plausible.

The rest of this paper is organized as follows. In section 2 we explain our survey and the political situation of Japan during our observation period. In section 3, we report the result that supporters of the cabinet and governing parties are happier. Section 4 examines the reason for this fact. Section 5 concludes.

# 2. Our survey and Japanese political parties

We conducted a monthly interview survey for 32 months from August 2005 to March 2008, asking more than 1000 respondents about their happiness, whether they support the governing cabinet, their party support, and their attributes such as gender, age, education, and income. Happiness is elicited in the following question: Please remember how you felt this week. How happy did you feel during this week? Using a scale from 0-10 where "10" is "very happy" and "0" is "very unhappy," how do you rate your level of happiness? In addition, in July 2006 and February 2007, we asked respondents to evaluate their own personality. Using these data, we check whether happiness differs between supporters and non-supporters of cabinet and

-

<sup>&</sup>lt;sup>1</sup> Income was not asked every month.

parties, and whether attributes and personality assessments differ between these groups.<sup>2</sup>

During these 32 months, three prime ministers administered Japan. These were Junichiro Koizumi from August 2005 to September 2006, Shinzo Abe from September 2006 to September 2007, and Yasuo Fukuda from September 2007 to March 2008. Among these, the Koizumi cabinet was a stable government, which ruled the country for five and a half years beginning in April 2001. In September 2005, the month after this survey started, Koizumi won a landslide victory in a famous election in which the main issue was postal privatization. In contrast, Abe and Fukuda were short-lived administrations that lasted only one year each. The Liberal Democratic Party (LDP) has ruled in a coalition with the New Komeito party since 1999.<sup>3</sup>

## 3. Cabinet supporters are happier

We pool all the data for the 32 months and divide them into three groups: "support cabinet", "do not support cabinet", and "don't know," and calculate the average happiness of these three groups. The results are presented in Table 1. Average happiness of the "support" group is 6.55, which substantially exceeds the 6.14 of "do not support" group. The t-statistic of the test of equality of means between these groups is 19.2,

<sup>&</sup>lt;sup>2</sup> However, different respondents were selected every time, so that the data are not panel.

which is highly significant (p= $1.0 \times 10^{-81}$ ).

This tendency is observed throughout the sample period. In Figure 1 we depict the means of happiness of the "support" and "do not support" groups, with 95% confidence intervals. The happiness of "support" group is larger throughout the period.<sup>4</sup>

In Table 2, we present the average happiness levels of the supporters of different political parties. Similar to cabinet supporters, supporters of the governing parties tend to be happier than supporters of the non-governing parties. The happiness of supporters of the LDP, a governing party, is 6.55, for supporters of New Komeito, a coalition party, it is 6.48, for supporters of the Democratic Party Japan (DPJ), the largest non-governing party, it is 6.33, and for supporters of the Japanese Communist Party and Social Democratic Party, traditional non-governing parties, it is lower. Those who support no party (non-affiliated) comprise 56% of all voters, and these report a very low happiness of 6.22. The t-statistic of a test for equality of means between LDP and DPJ supporters is 6.51 (p= $4.0 \times 10^{-11}$ ), while the t-statistic between LDP and non-affiliated is 14.08 (p= $3.2 \times 10^{-45}$ ).

- 4. Why are cabinet supporters happier?
- 4.1 Attributes and happiness

<sup>&</sup>lt;sup>4</sup> However, the difference is less after the beginning of the Fukuda cabinet.

Why are cabinet supporters happier? Since the governing parties are the LDP and New Komeito throughout the period, one possible hypothesis is that supporters of these parties are those who have attributes that cause them to be happy. Many studies have found that higher income and more education bring about higher happiness, that happiness is U-shaped in age, and that females are happier than males (Easterlin 2001, Frey and Stutzer 2002a,b, Clark 2007, Inglehart 1990, White 1992, Hellevik 2003, Tsutsui 2010). Thus, supporters of both governing parties might have happy attributes, e.g. higher income. In this subsection, we examine whether these attributes can explain why cabinet supporters are happier.

We asked household income on a 12-point scale. Using median values of these scales we calculate the average incomes of cabinet supporters and non-supporters. These are 4937 thousand yen and 4947 thousand yen, respectively, which are very close. The t-statistic of a test for equality of means is -0.14 and does not reject the null (p=0.443).

For education, we asked respondents whether the highest level of school from which they graduated was junior high school (1), high school (2), or university (3). Calculating the mean, we find that mean education level of cabinet supporters is 2.155 and non-supporters is 2.235, so that non-supporters are more educated. The difference is

significant (t=-10.8, p= $1.6\times10^{-27}$ ). Therefore, education is not a reason why cabinet supporters are happier.

While 52% of cabinet supporters are female, only 46% of non-supporters are female. The difference is significant (t=12.23, p=-1.25×10<sup>-34</sup>). This makes cabinet supporters happier. However, as per the "do not know" group, females comprise 62%. Thus, this female ratio cannot explain why cabinet supporters are happier than the "do not know" group.

The average age of cabinet supporters is 53.9 years, and for non-supporters 50.9 years. The difference is significant (t=16.3,  $p=4.2\times10^{-60}$ ). Kurokawa and Ohtake (2013) show that the happiness-age profile takes U-shape with a bottom in the 40's, so that differences in age partly explain why cabinet supporters are happier.

In sum, while the examinations in this subsection do not deny the possibility that gender and age might be causes of the difference in happiness, income and education would tend to make cabinet supporters unhappier.

## 4.2 Personality and happiness

Supporters of LDP and New Komeito might have happier personalities. To examine this possibility we asked respondents 15 questions about their personality in July 2006 and

February 2007. The fifteen personality characteristics we asked about were Sociable, Moody, Methodical, Friendly, Warm, Pessimistic, Neurotic, Industrious, Curious, Energetic, Careless, Modest, Daring, Have a sense of justice, and Egalitarian. For each of these characteristics, we asked respondents to choose one from "particularly true for me (4)," "somewhat true for me (3)," "doesn't hold true so much for me (2)," and "doesn't hold true at all for me (1)."

In Figure 2, we show averages of each characteristic for cabinet supporters and non-supporters. The figure reveals that cabinet supporters are more friendly, warm, and modest, while non-supporters are more moody and curious. These characteristics differ significantly at the 5% level.

How these personalities relate to happiness? Calculating the correlation coefficient between them, we find that correlation with happiness is Friendly, 0.15, Warm 0.16, Modest, 0.12, Moody -0.06, and Curious 0.13. Thus, except for Curious, cabinet supporters have happy personalities and non-supporters have unhappy personalities. Therefore, we cannot deny the possibility that cabinet supporters are happier because the support group is comprised of people who tend to have happy personality characteristics.

## 4.3 Statistical analysis

The conclusion of the previous two subsections is not decisive. We find that some attributes/personalities would tend to make cabinet supporters happier while some would tend to make them unhappier. In this subsection, we try to clarify whether attributes and personalities can explain the difference in happiness between cabinet supporters and non-supporters. To this end we employ the method of Oaxaca decomposition (Cotton 1988, Oaxaca and Ransom 1994). The difference in happiness between supporters and non-supporters can be attributed to a) the difference in the level of variables (i.e. difference in explanatory variables of the regressions with the sample of supporters and non-supporters including a constant term) and b) the difference in the sensitivity of variables on happiness (i.e. difference in coefficients).<sup>5</sup>

Let the mean happiness difference between the supporters and non-supporters be:

$$E(H_S) - E(H_N) \tag{1}$$

where  $E(H_s)$  denotes the expected value of happiness of the supporters and  $E(H_N)$  represents that of the non-supporters. Let  $\beta^*$  be a nondiscriminatory parameter vector. According to Neumark (1988), we adopted the coefficients from a pooled model over

<sup>&</sup>lt;sup>5</sup> The difference in the constant term represents the difference in two groups that comes from characteristics that are not included as explanatory variables.

both groups as a nondiscriminatory parameter vector as  $\beta^*$ .

Using such  $\beta^*$ , we can decompose this happiness difference as

$$E(H_S) - E(H_N) = \{E(X_S) - E(X_N)\}'\beta^* + \{E(X_S)'(\beta_S - \beta^*) + E(X_N)'(\beta^* - \beta_N)\}$$
(2)

where  $X_S$  ( $X_N$ ) denotes the vector of explanatory variables of the supporters (non-supporters) equation. The first term corresponds to a), and the second and the third terms to b). What we are interested in is the share of part a), which is explained by the attributes and personalities of the groups. If the share is large, this means that the difference in happiness is explained by attributes and personalities between the groups. We call a) "explained" and b) "unexplained".

We employ male dummy, Age, 15 Personalities, and education as the explanatory variables. We pool the responses in July 2006 and February 2007, and regress 11-point happiness over the explanatory variables. The number of observations is 2363. The estimation results are presented in Table 3. The estimated difference in happiness between supporters and non-supporters is -0.257. Attributes, personalities, and other characteristics (i.e. constant term) explain -0.056 of this, which is only 1/4 of the unexplained part (-0.201). Still, the explained part is significant at the 5% level.

We estimate the equation adding household income. In this case we only use the

July 2006 samples, since income is not available in the February 2007 data, so that the number of observations falls to 724. The results are shown in Table 4. The difference in happiness increases to -0.361. The explained part is -0.044, which is only 1/8 of the unexplained part (-0.316). In addition, it is not statistically significant (p=0.391).

These results suggest that the attributes and personalities of the groups do not fully explain the fact that cabinet supporters are happier than non-supporters.

# 4.4 Happiness due to rule of favored party

The remaining hypothesis is that people are happy because they support the ruling party. In other words, they are happy because their ideal policies are implemented. To examine this hypothesis, it would be ideal to show that DPJ supporters were happier than LDP supporters during September 2009 to December 2012, when the LDP lost power and DPJ was the governing party. Unfortunately, our survey ended in March 2008, so that the data during the period when DPJ held power is not available. However, we conducted a web survey for seven days before and after the voting day (August 30, 2009) of the General Election in which the DPJ took the power. Although the LDP was still the governing party in this period, we can infer the happiness of DPJ and LDP supporters under the reign of DPJ because the DPJ was slated to take power soon.

We conducted a web survey from August 27 to September 2 (seven days including the voting day). Respondents were 1068 (male=486, female=582) eligible voters from all over Japan. We asked respondents about what party they supported, and whether they supported the Aso cabinet. 114 supported the cabinet, 669 did not support it, 238 were indifferent, and 47 were uninterested.

Pooling the seven days of data, the total number of observations is 6408. The average happiness of cabinet supporters and non-supporters is 6.119 and 6.124, respectively. The null hypothesis of equal means is not rejected (t=-0.05, p=0.479). However, since cabinet supporters became much more unhappy on August 31<sup>st</sup>, the day after voting day, and non-supporters became happy, this day may be a special day (Kinari et al. 2014). When we omit the samples on 31<sup>st</sup>, supporters' happiness is 6.196, and non-supporters' is 6.141; still, the difference is not significant (t=0.567, p=0.285). These results indicate that happiness of supporters for the party that is slated to take power rises compared with supporters of the losing party.

The happiness of LDP and DPJ supporters is 6.359 and 6.193, respectively, and LDP supporters are significantly happier at the 5% level (t=2.20, p=0.014). Therefore, based on party support data, our above conclusion is not confirmed. Even so, we should have looked at happiness after the election results were known, because whether the

DPJ would take power was not actually decided before that time. If we use the data from August 31<sup>st</sup> to September 2<sup>nd</sup>, the happiness of LDP supporters is 6.18, and that of DPJ supporters 6.10, so that they are not significantly different (p=0.24). If we delete the data from 31<sup>st</sup> and use only the 1<sup>st</sup> and 2<sup>nd</sup>, happiness is 6.28 and 6.04, respectively, and not significantly different at the 5% level (p=0.08). In sum, these results support hypothesis 2) and suggest that supporters for ruling party become happier.

### 5. Conclusions

We demonstrated that supporters of the governing cabinet and governing parties are happier, using a monthly survey from August 2005 to March 2008. Two hypotheses were considered as to the cause of this result. The first is that cabinet supporters are basically happy people, and the other is that people become happy if their supporting party rules the country. To examine the first hypothesis we utilize attributes and personalities of the respondents and conduct Oaxaca decomposition to see if differences in attributes/personalities explain the difference in happiness between cabinet supporters and non-supporters. We found that attributes/personalities explain only 1/8 of the difference in happiness, denying that the entire happiness difference is due simply to the fact that happy people become cabinet supporters.

To examine the alternative hypothesis that cabinet supporters become happier, we utilized daily survey data for the seven days before and after the General Election on August 30<sup>th</sup>, 2009. The DPJ, then the opposition party, won a landslide victory and became the new government. This survey reveals that the happiness of cabinet supporters and non-supporters does not differ significantly. In addition, if we focus on the two or three day after the election, the happiness of DPJ supporters and LDP supporters is not different significantly. These results support the hypothesis that cabinet supporters become happier.

A problem of this study is that we did not conduct a survey during the period when the DPJ was the ruling party. If we did this and found that DPJ supporters were happier, the second hypothesis would have been more clearly supported. It is pity that we missed this chance.

#### Reference

Bok, D., 2010. The Politics of happiness: What Government Learn from the New Research on Well-being, Princeton, NJ, Princeton University Press.

Clark, A., 2007. Born To Be Mild? Cohort Effects Don't (Fully) Explain Why Well-Being is U-Shaped in Age. IZA DP No. 3170.

Cotton, J. 1988. On the Decomposition of Wage Differentials. *Review of Economics and Statistics*, 70, 236-243.

Easterlin, R., 2001. Income and Happiness: Towards a Unified Theory. *Economic Journal*, 111, 465-484.

Frey, B. S., 2008. Happiness: A Revolution in Economics. Cambridge MA, MIT Press.

Frey, B. S., Stutzer, A., 2002a. *Happiness and Economics*. Princeton, NJ, Princeton University Press.

Frey, B. S., Stutzer, A., 2002b. What Can Economists Learn from Happiness Research? *Journal of Economic Literature*, 40, 402-435.

Gilbert, D. T., Pinel, E. C., Wilson, T. D., Blumberg, S. J., 1998. Immune Neglect: A Source of Durability Bias in Affective Forecasting. *Journal of Personality and Social Psychology*, 75, 617-638.

Hellevik, O., 2003. Economy, Values and Happiness in Norway. *Journal of Happiness Studies*, 4, 243-283.

Inglehart, R. F., 1990. *Culture Shift in Advanced Industrial Society*. Princeton, NJ, Princeton University Press.

Kimball, M., Ohtake, F., Tsutsui, Y., 2007. The Dynamics of Happiness: Evidence from Daily Panel Data. Paper presented at MESS Workshop, Netherlands.

Kimball, M., Raymond, C., Ohtake, F., Tsutsui, Y., 2014. The Response of Happiness to

Election Outcomes: Testing Dynamic Theories of Expectations-Dependent Happiness. mimeo.

Kinari, Y., Ohtake, F., Kimball, M., Morimoto, S., Tsutsui, Y. 2014. Happiness Before and After an Election: An Analysis Based on a Daily Survey around Japan's 2009 Election, mimeo.

Kurokawa, H. and Ohtake, F., 2013. Age and Cohort Effects on Happiness, Satisfaction, and Stress, *Journal of Behavioral Economics and Finance*, 6, 1-36. (in Japanese)

Neumark, D. 1988. Employers' Discriminatory Behavior and the Estimation of Wage Discrimination. *Journal of Human Resources*, 23. 279-295.

Oaxaca, R. L. and Ransom, M. R. 1994. On Discrimination and the Decomposition of Wage Differentials. *Journal of Econometrics*, 61, 5-21.

Tsutsui, Y., 2010. Why You Are Unhappy? In Ohtake, F., Shiraishi, S. and Tsutsui, Y. eds. *Happiness in Japan*. Nippon Hyoron Sha. (in Japanese)

Tsutsui, Y., Kimball, M., Ohtake, F., 2010. Koizumi Carried the Day: Did the Japanese Election Results Make People Happy and Unhappy? *European Journal of Political Economy*, 26, 12-24.

White, J.M., 1992. Marital Status and Well-Being in Canada. *Journal of Family Issues*, 13, 390-409.

Wilson, T. D., Meyers, J., D., Gilbert, T., 2003. How Happy Was I, Anyway?: A Retrospective Impact Bias. *Social Cognition*, 21, 421-446.

Table 1. Mean of happiness of cabinet supporters and non-supporters (total sample)

n=42870	No. of Samples	Happiness Mean	SD
Cabinet Supporters	17040	6.55	1.92
Non-cabinet Supporters	15428	6.14	1.94
Don't Know	10402	6.21	1.96
<b>Exclude Cabinet Supporters</b>	25830	6.17	1.95
(Non-supporters + undecided)	25050	0.17	1.75

Table 2. Mean happiness of supporters for various parties (total sample)

	No. of Samples	Mean Happiness	standard
n=42870			deviation
LDP	10274	6.55	1.93
DPJ	4571	6.325	1.91
New Komeito	1616	6.48	1.98
Japanese Communist Party	757	6.12	1.98
Social Democratic Party	452	6.26	1.83
People's New Party	38	6.59	1.76
New Party Nippon	17	7.88	1.64
Other Parties	17	7.12	1.49
Non-Affiliated	24146	6.22	1.95
Don't Know	982	6.26	2.12

Table 3. Results of Oaxaca decomposition

happiness	Coefficient	Standard error
Happiness of non-supporters	6.188	0.052**
Happiness of supporters	6.445	0.060**
difference	-0.257	0.080**
explained	-0.056	0.026*
unexplained	-0.201	0.078**
Total Observations	2363	
Number of observations (Non supporters)	1437	
Number of observations (Supporters)	926	

Note: \*\* 1%, \* 5% significance.

Table 4. Results of Oaxaca decomposition when income is included in the regression)

happiness	Coefficient	Standard Error
Happiness of non-supporters	5.942	0.104**
Happiness of supporters	6.303	0.098**
difference	-0.361	0.143*
explained	-0.044	0.052
unexplained	-0.316	0.137*
Total Observations	724	
Number of observations (Non supporters)	397	
Number of observations (Supporters)	327	

Note: \*\* 1%, \* 5% significance.







