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# Happiness before and after a severe nation-wide disaster: The case of the Great East Japan Earthquake

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# What is Japanese happiness?



- Commission started in 2010
- Cross-cultural comparisons
- Within cultural differences
- Happiness before and after the Great East Japan earthquake



# Happiness indicators in Japan

## Subjective Well-Being

- Happiness (global index):
  - “To what extent are you happy?” (0-10)
- Ideal level of happiness
- Future happiness
- Interdependent happiness (ordinary happiness)  
(i.e., “I feel that I have attained the same level of happiness as those around me.”)
- Positive and negative affect



# Great East Japan Earthquake (March 11, 2011)

- Earthquake
- Tsunami
- Accident of Fukushima nuclear power plant





# Research Question

(Uchida, Takahashi, & Kawahara, in press)

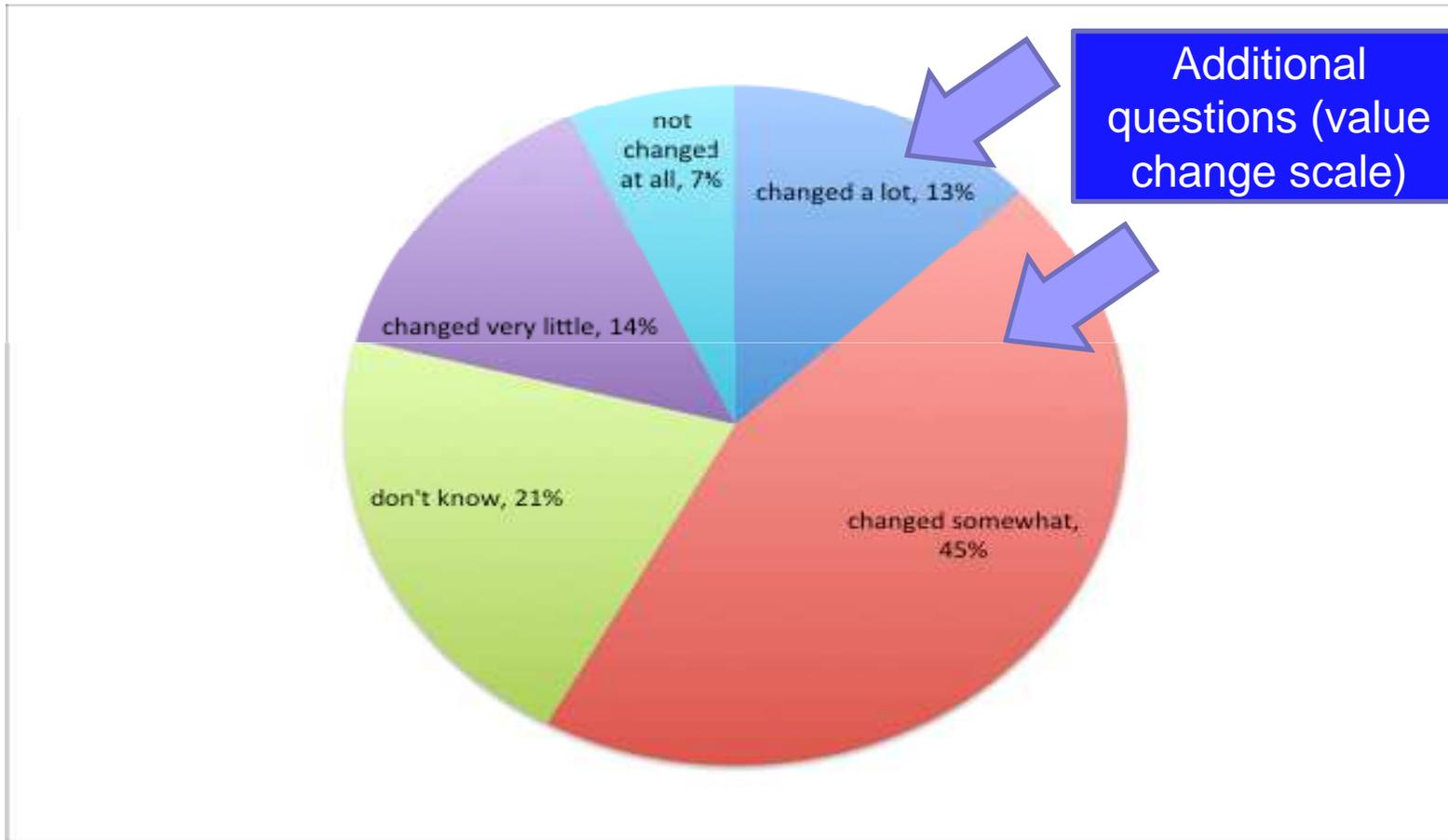
- How much psychological impact did the disaster have upon those who were living in areas that were not directly affected by the earthquake?
- How did their values and general happiness change following the disaster?



# Procedure

- Japan-wide survey on happiness and the Great East Japan Earthquake
  - 1st (Dec. 2010 )
  - 2nd (March. 2011)
- Participants were from 20 to 39 years old, came from all the districts of Japan, except those that suffered severe damage following the earthquake
- Panel survey: N of participants that completed surveys in both periods was 10,744 (53.1% male, 46.99% female)

# Value changes after the earthquake

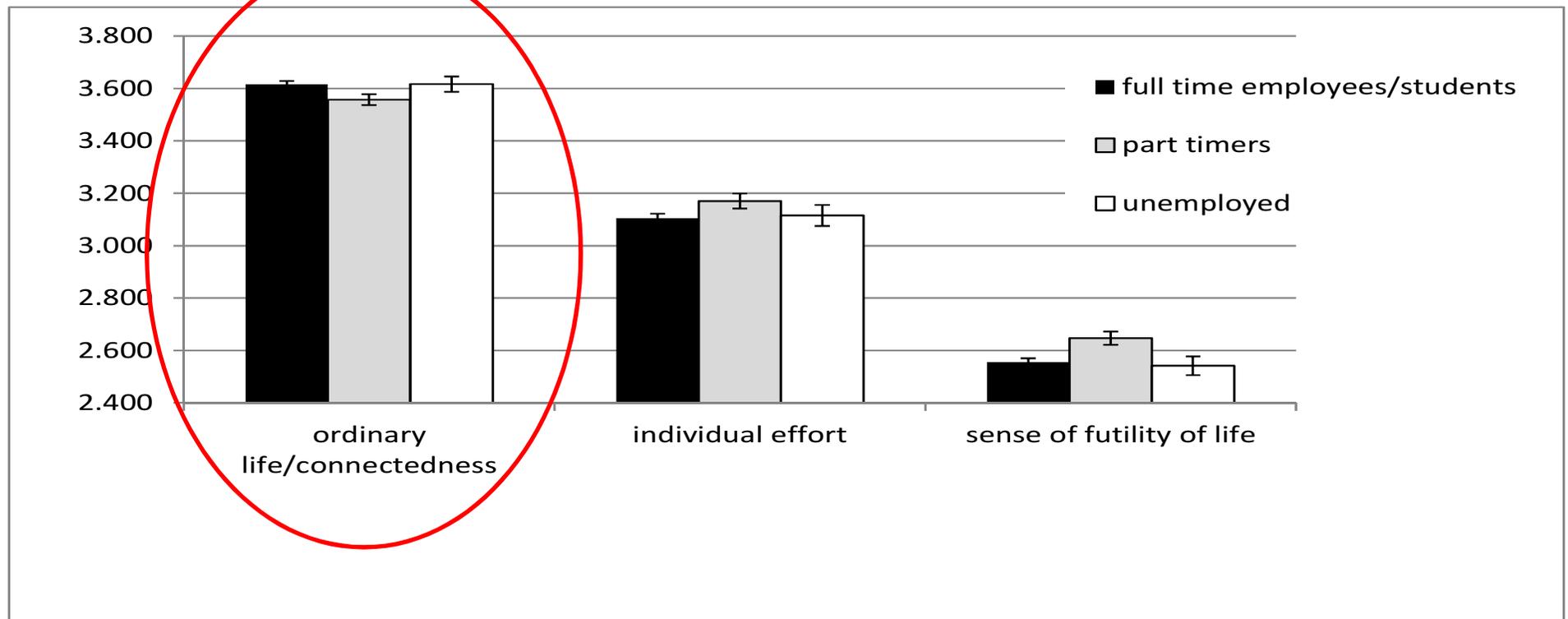




# Value change scale

- Evaluation of ordinary life and connectedness (5 items)
  - I have started to appreciate the importance of my ordinary life and how this makes me happy
  - I value my relationships with family members and friends
- Evaluation of individual efforts (2 items)
  - I have begun to place more value on gaining fulfillment in my job or school
- The futility of life (2 items)
  - I have begun to feel a sense of futility—it seems that, even if I work hard, all of this will be in vain afterwards

# Value change after the earthquake

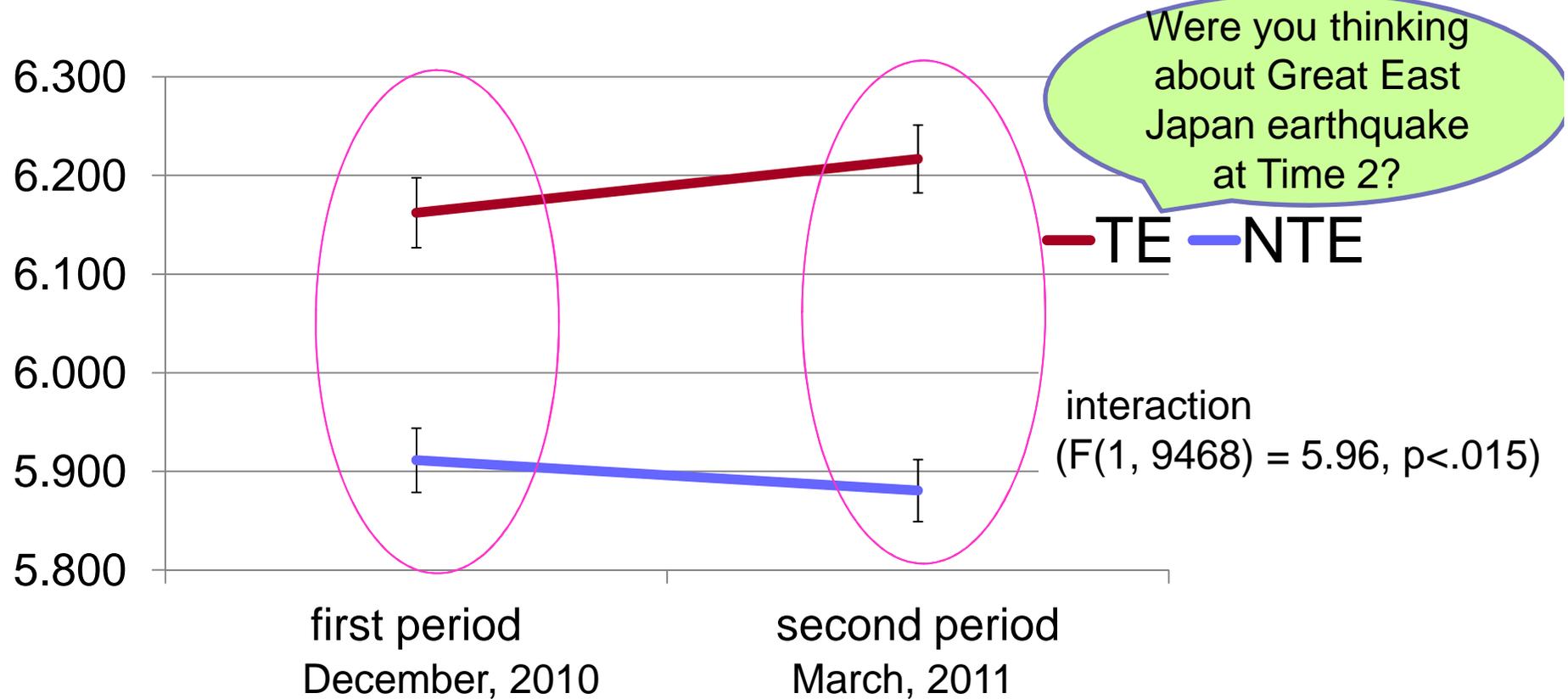




Thinking about the earthquake while they were responding to the happiness

- 40.3% Thinking about the earthquake (TE)
- 47.9% Not thinking about the earthquake (NTE)
  
- 11.9% Victim relatives (not included in the analysis)

# Happiness before and after the earthquake



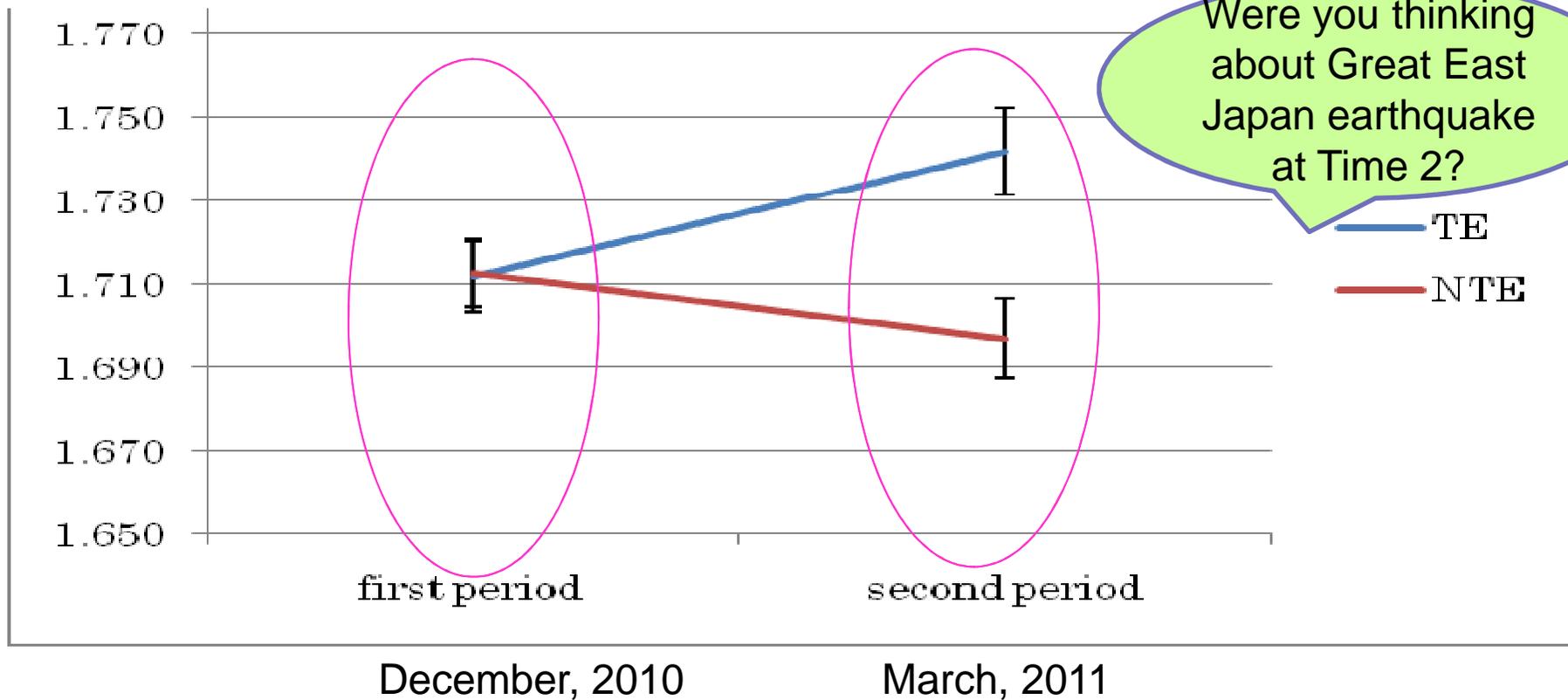
\*TE =thinking about the earthquake when they completed the second survey, N=4326

\*NTE = not thinking about the earthquake, N=5146 \*11 point scale of general happiness (0-10)

- Regression analysis on the general happiness after the earthquake (\*happiness before the earthquake is controlled)

	Beta	t	p
Gender (1 = male, 2= female)	.049	6.56	.000
Employment status (1=full time, 2 = part time, 3= unemployed)	-.011	-1.56	.12
Value Change			
ordinary life and connectedness	.130	6.47	.000
Individual effort	.017	0.95	.34
Futility of life	-.096	-6.82	.000

# Negative Affect before and after the earthquake



\*TE =thinking about the earthquake when they completed the second survey, N=4326

\*NTE = not thinking about the earthquake, N=5146 \*4 point scale of negative emotions (1-4)



# Conclusion

- Young people, who live in areas that were not directly affected by the earthquake, reevaluated their social conditions and increased happiness
- Social connections would take on a more important role during the reconstruction of a society following a severe disaster
- Two groups of young people: TE vs. NTE
- Nation-wide disaster has an impact on happiness



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- This research was conducted by Economic and Social Research Institute, Cabinet Office, Government of Japan