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Social Cognitive Model Of Lottery Gambling
And
A Test of Cognitive Bias Hypothesis
In Thailand

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1. Significance of the study.
2. Review of social cognitive theory and cognitive bias.
3. Methodology.
4. Results.
5. Discussion.
6. Preliminary results of a follow-up study.

Significance of the Study

1. In Thailand, two types of lottery -- traditional and numbers game. Latter added in attempt to replace illegal lottery.

2. Draw dates on 1st and 16th of the month. Total receipt each draw about 3 billion Baht or 72 billion Baht a year (1.5 billion Euro.

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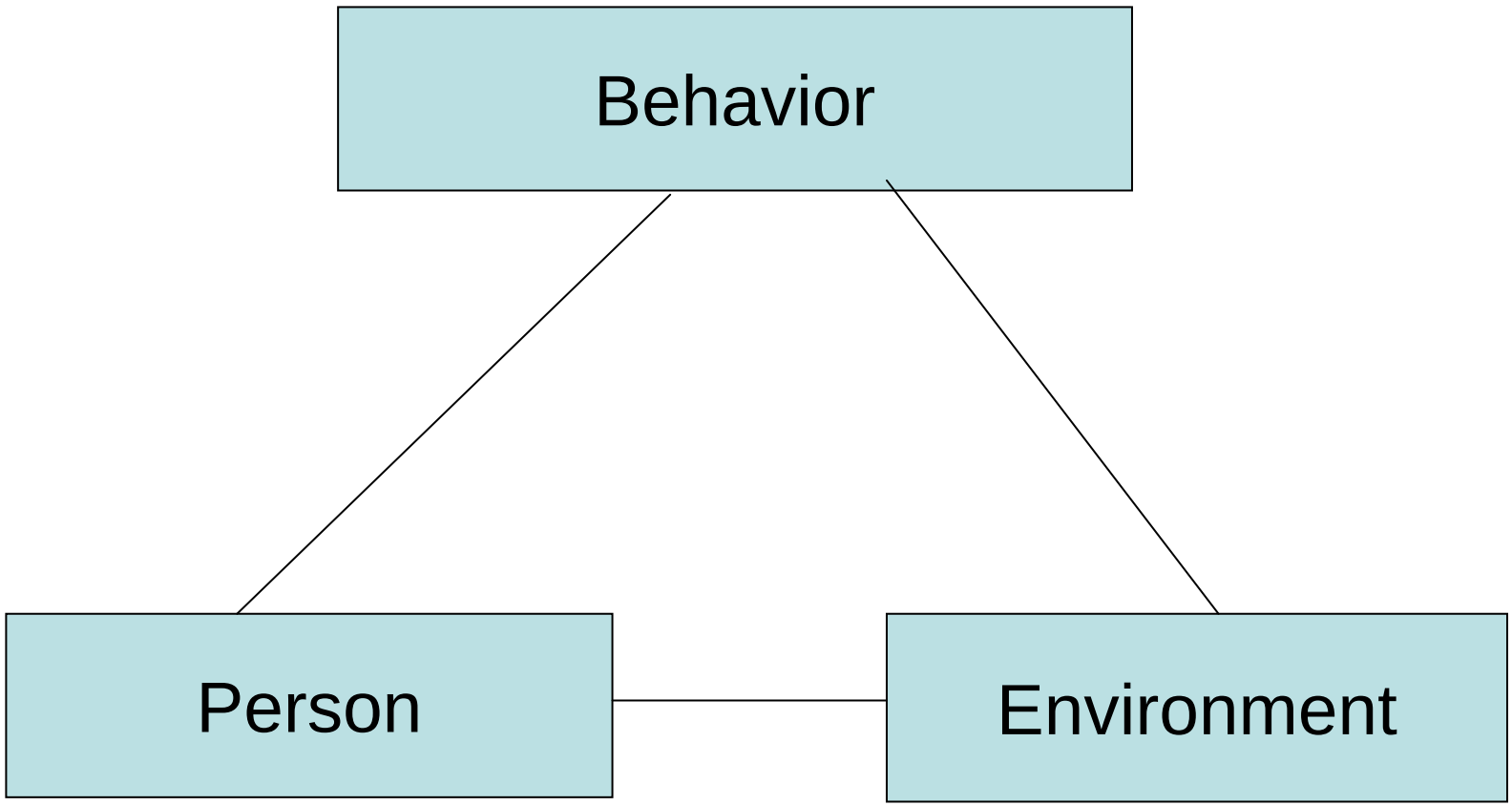
3. No systematic study on legal lottery gambling.

4. Need to know:

   3.1 Who gambles and how much?

   3.2 Test cognitive bias and money consciousness hypotheses.

Review

- 

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- Triadic reciprocal relationship—
- Person affects Behavior directly and indirectly through Environment;
- Environment affects Behavior directly and indirectly through Person;
- Behavior affects Person and Environment directly and indirectly through the other variable.

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- From the literature—
- Behavior includes:
- Frequency of lottery gambling;
- Amounts of lottery purchases.

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- Person variables include:
- Belief about skill, luck and optimism;
- Locus of control;
- Cognitive bias—lack of understanding of randomness, independence, and uncontrollability of number selection and negative expectation of lottery win.

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- Environment variables include:

- Prize—Higher jackpot prize money;
- Availability—Ease of buying lottery;
- Social circle—Parents and friends who are lottery gamblers.

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- This study examines relationships between Person variables and Behavior.
- Person: Income
- Cognitive bias
- Money consciousness
- Hope
- Behavior: Frequency and amounts of lottery gambling

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- H1: Low-income respondents gamble more frequently and more money than high-income respondents.
- H2: High cognitive-bias respondents gamble more frequently and more money than low-cognitive bias respondents

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- H3: High money-conscious respondents gamble more frequently and more money than low-money conscious respondents.
- H4: High hope respondents gamble more frequently and more money than low hope respondents.

Methodology

- 15 non-gamblers; 300 lottery gamblers.
- Independent variables
- Cognitive bias scale—developed in Thai, after Ladouceur & Walker, 1996.
- Money consciousness scale—developed in Thai, similar scale by Tang, 1995.
- Hope of winning first prize--Low hope and high hope.

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- Dependent variables

  Frequency: Low—Bought once in a while;

  High—Bought frequently but not every draw date, and bought every draw date.

  Amounts: Low--Baht 1-500;

  High—501 and more.

Results

- Respondent demographics:
- Majority female (62.5%).
- Young age groups (29.5% from 21-30 yr, 20.3% from 31-40 yrs groups).
- Low income (44.6% earns less than Baht 10,000/month).
- Educated (45.5% bachelor degrees).
- 57.5% were salary earners.

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- Exploratory factor analysis:
- Cognitive bias—9 items, alpha reliability of 0.81.
- Money consciousness—15 items, alpha reliability of 0.89.

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- Log-linear modeling was used to test hypotheses. Final models:

- H1: (Income x frequency x amounts)

  Levels of income related (3-way) to frequency and amounts of lottery gambling.

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H2: (Cognitive bias) (Frequency x amounts)
Cognitive bias not related to frequency
or amounts of lottery gambling.

H3: (Money consciousness x amounts)
(Frequency x amounts)
Pair-wise relationship, money conscious-
ness related to amounts of gambling.

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- H4: (Hope x amounts)

  (Frequency x amounts)

  Pair-wise relationship, hope related to amounts of lottery gambling.

Discussion

- Lottery gamblers—poor, money conscious and hope to win lottery money.
- They have little or no understanding of the randomness, independence and uncontrollability of number selection.

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- Banning lottery is impossible. Gamblers should be allowed to gamble on informed choice.
- Information should be printed on lottery tickets to give information on number selection and a warning on small chance of winning.

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- Limitations
- Prospective study.
- Sampling in capital city.
- Operational definition of cognitive bias.
- Future study
- Redefine cognitive bias.
- Include chasing.
- Include family members play.

Preliminary Results of Follow-up Study

- 950 respondents covering Bangkok and 4 regions of Thailand.
- Similar profile of respondents.
- Amount of lottery gambling: 1-250 Baht.
- Income related (pair-wise) to frequency and amounts of gambling.
- Cognitive bias (redefined) related in 3-way to frequency and amounts of gambling.

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- Money consciousness related (pair-wise) to frequency and amounts of gambling.
- Hope related (pair-wise) to frequency and amounts of gambling.
- Cognitive bias, money consciousness and hope related to chasing.
- Family members' play related (pair-wise) to frequency and amounts of gambling