

Designing Learning Workshop to Increase Subjective Well-Being Based Upon Two Contrastive Action Principles with Money : Profit-Maximization, Appreciation-Maximization and Their Balance

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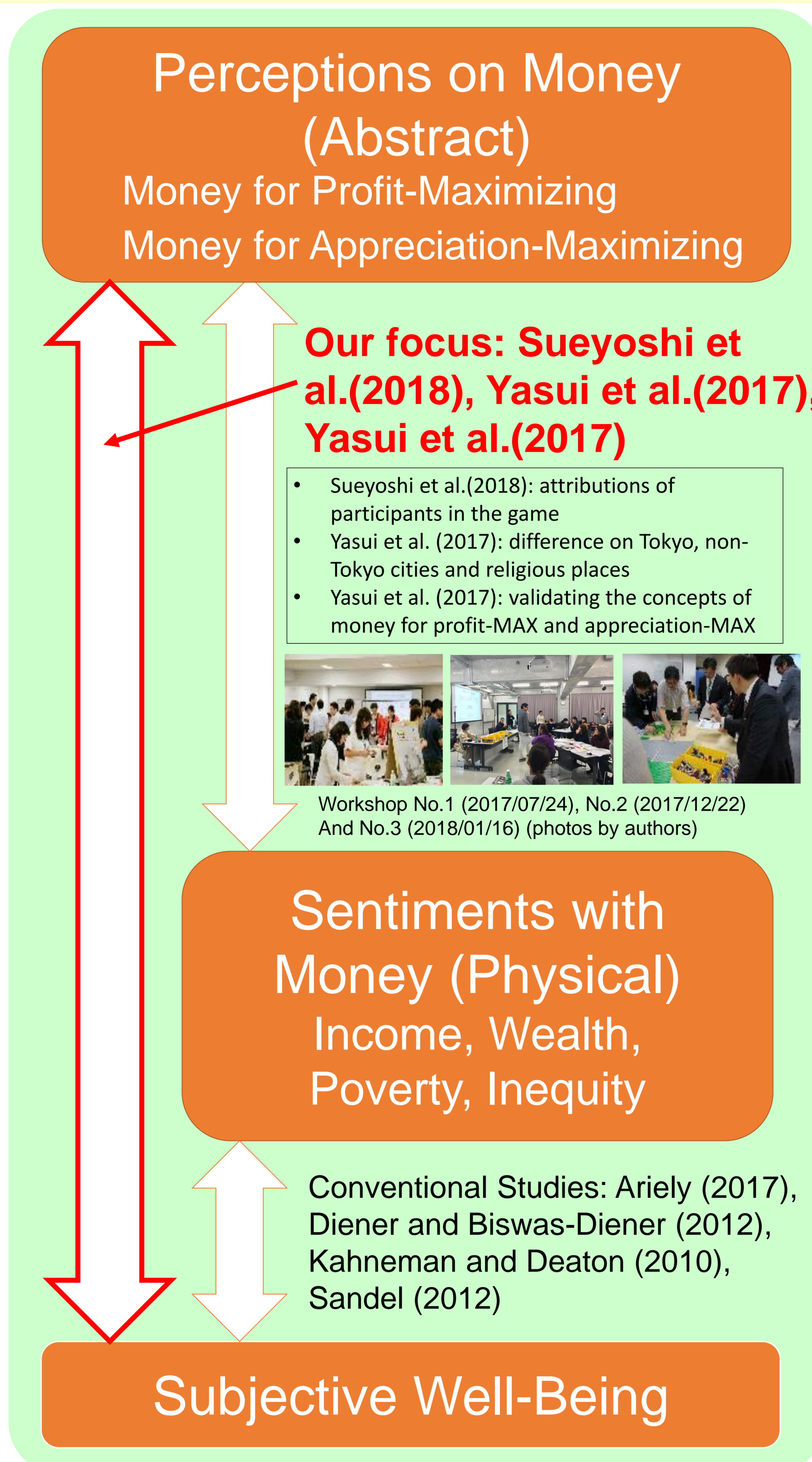
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Background: The different action principles to use money on markets drastically affect subjective well-being of market participants, rather than their incomes and income distributions that were conventionally main target of study about correlation with money and happiness. The authors developed and validated a model of learning workshop which makes participants think and feel two contrastive action principles on money and economy.

Aim: The authors expanded this learning workshop for participants to provide a co-creative opportunity of group learning to observe optimal balance between the two different views on money-related norms, the **profit maximizing principle** and the **appreciations maximizing principle** that may change contrastively peoples' behaviors in markets and influence their subjective well-beings. They validated the expanded model by verifying quantitatively the effects of money games on subjective well-being.



Method: A group-leaning workshop is composed by two money-game sessions evenly divided as time.

The first session is for **profit maximizing** that an administrator instructs participants use their money and behaved for profit maximizing.

The second session is for **comparison**. For the workshop No.1 to let participants to experience **only appreciation maximizing**. An administrator instructs participants use their money and behaved for maximizing their appreciations; For the workshop No.2 and No.3, the participants **experience simultaneously two principles**, namely **profit maximizing and appreciation maximizing**.

All resources distributed to participants and rules applied to the games are set equal among three sessions except for these contrastive principles about market behaviors. In either session, participants are divided to 4-8 stores having their own parts of an ornament and money. Each stores trade money to gather 2-4 other different parts, depending on the number of participants, for assembling and selling them to an administrator. The authors implemented 3 workshops in Japan from July 2017 to January 2018.

They measured quantitatively participants' changes in subjective well-beings before and after of each session by Meno's four factors of happiness (Maeno and Maeno 2015), the satisfaction with life scale (SWLS; Diener et al.1985) and Japanese version of PANAS (JPANAS; Sato and Yasuda 2001).

Conclusions: Workshop No.1 (contrast of profit maximization and appreciation maximization) significantly influenced augment of subjective well-being. Mixed session (workshop No.2 and 3) were less effective for increasing well-being.

Participants who hold two contrastive perceptions on money in separate money game sessions (money for profit maximizing and money for appreciation maximizing respectively) experienced increase of subjective well-being. Not in the mixed session.

Results of Workshop No.1 (upper), Workshop No.2 (middle) and No.3 (bottom)

	Profit Maximizing Session (ProfitMAX) Before/After										Appreciation Maximizing Session (ThanksMAX) Before/After										Entire Workshop (ProfitMAX Session and ThanksMAX Session) Before/After									
	Maeno-HF1	Maeno-HF2	Maeno-HF3	Maeno-HF4	Maeno-ALLFs	Diener-SWLS	JPANAS-P	JPANAS-N	Maeno-HF1	Maeno-HF2	Maeno-HF3	Maeno-HF4	Maeno-ALLFs	Diener-SWLS	JPANAS-P	JPANAS-N	Maeno-HF1	Maeno-HF2	Maeno-HF3	Maeno-HF4	Maeno-ALLFs	Diener-SWLS	JPANAS-P	JPANAS-N						
Profit-Max S and Appreciation-Max S (Tokyo, 2017/07/24, n=29)	11.3 <2.5>	12.5 <1.4>	10.7 <4.7>	10.5 <4.7>	45.0 <30.5>	25.7 <32.4>	30.7 <3.1>	23.8 <3.1>	10.8 <3.1>	12.0 <2.0>	10.7 <3.8>	10.5 <4.3>	44.0 <27.8>	26.2 <25.3>	34.9 <31.4>	24.2 <44.7>	11.3 <2.5>	12.5 <1.4>	10.7 <4.7>	10.5 <4.7>	45.0 <30.5>	25.7 <32.4>	30.7 <3.1>	23.8 <3.1>						
Ave.1 <Disp. 1>	14.7 <11.0>	23.3 <5.7>	16.2 <10.0>	18.5 <7.7>	72.7 <83.3>	21.6 <23.4>	26.0 <17.3>	22.7 <88.1>	16.1 <14.3>	23.7 <8.2>	16.9 <12.8>	17.8 <13.2>	74.5 <45.2>	20.6 <17.2>	30.2 <84.9>	24.7 <67.3>	14.7 <11.0>	23.3 <5.7>	16.2 <10.0>	18.5 <7.7>	72.7 <83.3>	21.6 <23.4>	26.0 <17.3>	22.7 <88.1>						
Ave.2 <Disp. 2>	10.8 <3.1>	12.0 <2.0>	10.7 <3.0>	10.5 <4.3>	44.0 <2.8>	26.2 <25.3>	34.9 <31.4>	24.2 <44.7>	11.3 <3.2>	12.4 <1.3>	11.6 <2.4>	11.3 <3.2>	46.6 <25.2>	27.7 <20.6>	34.4 <35.6>	19.4 <55.5>	11.3 <2.5>	12.4 <1.3>	11.6 <2.4>	11.3 <3.2>	46.6 <25.2>	27.7 <20.6>	34.4 <35.6>	19.4 <55.5>						
Happier/Unhappier	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓						
Critical P	**0.02	**0.02	0.82	1	0.15	0.37	***0.00	0.77	***0.01	*0.09	***0.01	**0.02	***0.00	**0.02	0.72	***0.00	1	0.75	**0.03	**0.04	*0.06	***0.00	***0.00	**0.01						
Profit-Max S and Mixed S (Profit+Max+Appreciation-Max) (Kyoto, 2017/12/22, n=12)	14.7 <11.0>	23.3 <5.7>	16.2 <10.0>	18.5 <7.7>	72.7 <83.3>	21.6 <23.4>	26.0 <17.3>	22.7 <88.1>	16.1 <14.3>	23.7 <8.2>	16.9 <12.8>	17.8 <13.2>	74.5 <45.2>	20.6 <17.2>	30.2 <84.9>	24.7 <67.3>	14.7 <11.0>	23.3 <5.7>	16.2 <10.0>	18.5 <7.7>	72.7 <83.3>	21.6 <23.4>	26.0 <17.3>	22.7 <88.1>						
Ave.1 <Disp. 1>	16.1 <14.3>	23.7 <8.2>	17.0 <12.8>	17.8 <13.2>	74.5 <45.2>	20.6 <17.2>	30.2 <84.9>	24.7 <67.3>	15.0 <19.8>	23.6 <8.3>	15.0 <20.6>	17.4 <11.4>	71.0 <158.8>	20.2 <22.4>	33.9 <25.7>	20.7 <53.9>	15.0 <19.8>	23.6 <8.3>	15.0 <20.6>	17.4 <11.4>	71.0 <158.8>	20.3 <22.4>	33.9 <25.7>	20.7 <53.9>						
Ave.2 <Disp. 2>	15.9 <10.1>	23.3 <5.1>	16.6 <9.5>	18.3 <4.9>	74.0 <28.1>	22.8 <16.0>	27.2 <30.5>	25.5 <41.7>	16.7 <12.2>	22.9 <9.9>	16.8 <15.7>	18.4 <4.9>	74.7 <81.2>	23.3 <21.7>	30.5 <16.8>	21.7 <47.5>	15.9 <10.1>	23.3 <5.1>	16.6 <9.5>	18.3 <4.9>	74.0 <28.1>	22.8 <16.0>	27.2 <30.5>	25.5 <41.7>						
Happier/Unhappier	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓						
Critical P	0.27	0.78	0.61	0.66	0.65	0.5	0.2	0.65	0.54	0.94	0.24	0.78	0.42	0.86	0.2	0.2	0.85	0.82	0.49	0.5	0.74	0.53	***0.01	0.57						
Profit-Max S and Mixed S (Profit+Max+Appreciation-Max) (Tokyo, 2018/01/16, n=26)	16.7 <12.2>	22.9 <9.9>	16.8 <15.7>	18.4 <4.9>	74.7 <81.2>	23.3 <21.7>	30.5 <16.8>	21.7 <47.5>	16.8 <12.8>	23.1 <13.3>	17.7 <11.7>	18.5 <11.3>	75.6 <93.3>	23.1 <19.9>	29.9 <35.6>	22.7 <48.0>	16.8 <12.8>	23.1 <13.3>	17.7 <11.7>	18.0 <11.3>	75.6 <93.3>	23.1 <19.9>	29.9 <35.6>	22.7 <48.0>						
Happier/Unhappier	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓						
Critical P	0.18	0.22	0.77	0.81	0.6	0.46	***0.01	***0.00	0.68	0.5	*0.08	0.67	0.37	0.61	0.53	0.45	0.13	0.71	*0.10	0.69	0.37	0.61	*0.08	*0.09						