

The Endowment Effect in the Future

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Introduction

Did you have hard time to sell or discard unnecessary stuffs?

It has been shown that people **give a higher value to an object just because they own it**. This pattern has been called **the endowment effect**.



The typical experimental procedure to test for the endowment effect divides subjects into sellers and buyers, and an object is allocated to only sellers.

As a result, the willingness to accept (WTA) to give up this object by sellers is **higher** than the willingness to pay (WTP) to receive the same object by buyers. This endowment effect can be caused by **loss aversion** of sellers (Thaler 1980).



Previous literature

Surprisingly, little is known about the endowment effect for transactions that will happen in the future even though the transaction in the future is common in daily life. For example:

- Booking a hotel
- Selling a car
- Online flea market such as Craigslist, Wallapop, and Jimothi
- And more...



Many researchers have investigated under which conditions the endowment effect is strengthened or weakened. Peck and Shu (2009) found that psychological ownership was increased by merely touching an object. List (2011, 2003) showed that the endowment effect tends to disappear with experienced traders.

The endowment effect in the future can be different from the endowment effect in the present. If so, **when is the best timing** for sellers and buyers to reach an agreement?

	If the endowment effect in the future is...	
	stronger	weaker
Desirable transaction timing	As soon as possible	In the future

If gains are discounted in time more than losses (Frederick, Loewenstein, and O'Donoghue 2002), which has been called the **sign effect**, then WTP should be discounted more than WTA in time, and the endowment effect should be **strengthened** in the future. However, **no study has tested the sign effect in the context of the evaluation of objects**.

Study 1 & Study 2

- 500 Participants on Amazon Mechanical Turk in total
- Randomly divide subjects into seller & buyer groups
- Elicited WTP and WTA at different points in time

Buyer: the max amount of money (\$X) that you would be willing to pay to buy the item if the exchange were to happen **t** (meaning that you would pay the money **t** and also receive the item **k**).

Seller: the min amount of money (\$X) that you would require to sell the item if the exchange were to happen **t** (meaning that you would receive the money **t** and also give up the item **k**).

Study 1: **t** is always equal to **k**

k = {today, tomorrow, in 1 month, in 1 year}

Study 2: **t** is always **today**

* this is hypothetical experiment

Results

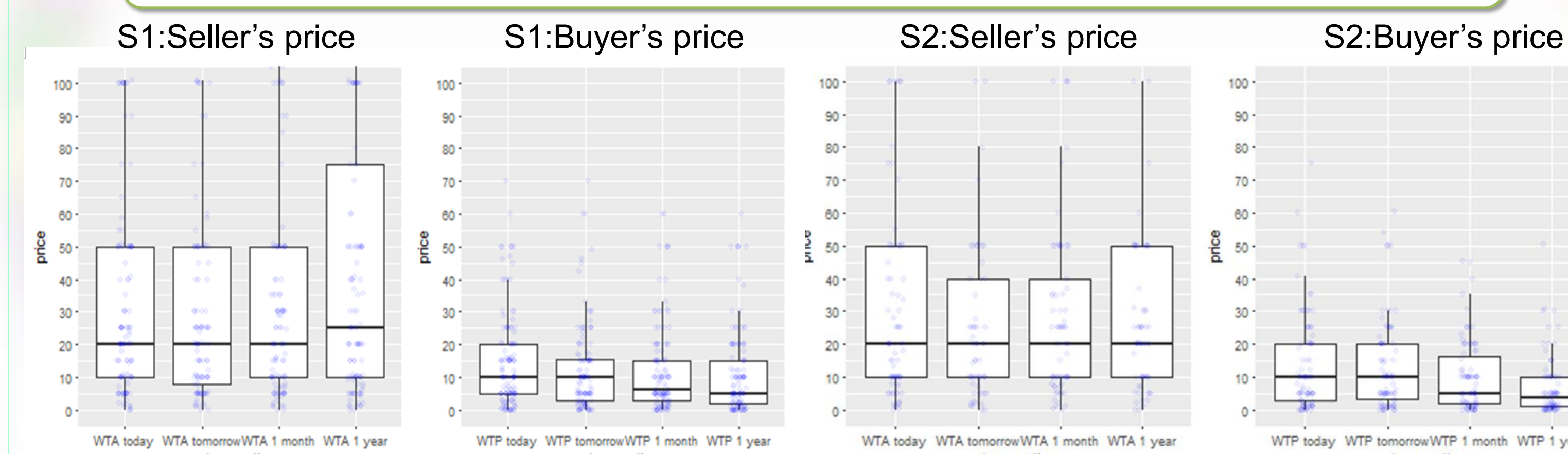


Table 5. Regression Analysis of Sellers' Price: Study 1 & 2.

	(1)	(2)	(3)	(4)
Day/100	0.01 (0.04)	0.01 (0.04)	-0.01 (0.04)	-0.02 (0.03)
Study1*(Day/100)			0.07 (0.04)	0.10* (0.04)
Wrong	0.03 (0.16)	0.03 (0.16)	0.03 (0.16)	0.03 (0.16)
Like	0.17*** (0.03)	0.17*** (0.03)	0.22*** (0.02)	0.22*** (0.02)
1_day_first	0.10 (0.18)	0.10 (0.18)	-0.33*** (0.10)	-0.33*** (0.10)
1_month_first	0.35* (0.18)	0.35* (0.18)	0.00 (0.11)	0.00 (0.11)
1_year_first	0.18 (0.16)	0.18 (0.16)	0.03 (0.10)	0.03 (0.10)
Constant	2.98*** (0.07)	2.09*** (0.19)	3.02*** (0.05)	2.18*** (0.11)
N	348	348	902	902
R ²	0.000	0.087	0.005	0.140

Table 6. Regression Analysis of Buyers' Price: Study 1 & 2.

	(1)	(2)	(3)	(4)
Day/100	-0.14*** (0.04)	-0.14*** (0.03)	-0.16*** (0.03)	-0.15*** (0.03)
Study1*(Day/100)			0.09** (0.04)	0.07* (0.03)
Wrong	0.15 (0.12)	0.15 (0.12)	0.13 (0.09)	0.13 (0.09)
Like	0.38*** (0.02)	0.38*** (0.02)	0.37*** (0.02)	0.37*** (0.02)
1_day_first	0.37*** (0.11)	0.37*** (0.11)	0.16** (0.07)	0.16** (0.07)
1_month_first	0.22* (0.13)	0.22* (0.13)	0.25*** (0.08)	0.25*** (0.08)
1_year_first	0.07 (0.13)	0.07 (0.13)	0.14* (0.08)	0.14* (0.08)
Constant	2.05*** (0.07)	0.47*** (0.13)	2.13*** (0.04)	0.59*** (0.08)
N	413	413	976	976
R ²	0.035	0.443	0.027	0.398

Study 3

Test if sellers predict **the duration-of-current-ownership effect**: valuation increases with duration of ownership (Strahilevitz & Loewenstein 1998).

There are two broad causal mechanisms that could explain why sellers' prices did not change across the four scenarios in Study 2.

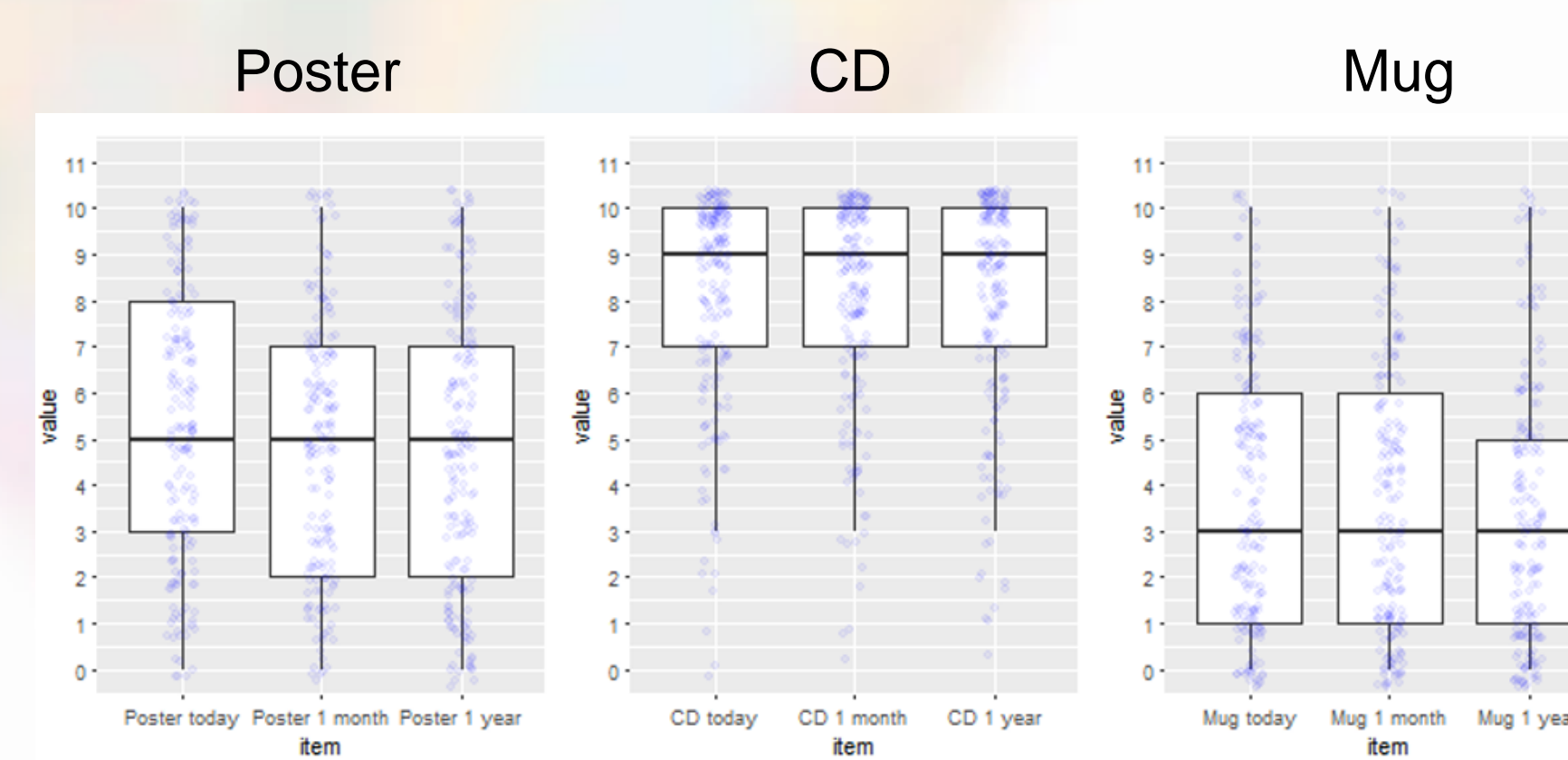
1. the sellers **anticipated** this effect while they discounted the future value of the item, so that both effects were canceled out.
2. the sellers **neither expected** this effect **nor discounted** the future value of the item.

Experimental design

- 200 Participants
- Items: poster, autographed CD, and mug

How valuable you think the item would be to you after owning it for t? Scale: 0 to 10

t = {today, 1 month, 1 year}



Conclusion

- **The endowment effect was strengthened in time.** As the transaction is delayed in the further future, the gap between sellers' and buyers' prices became larger.
- **Fixing the transaction timing for the money did not fundamentally affect** this increased endowment effect in the future.
- **Sellers do not predict the duration-of-current-ownership effect and do not discount the future value of the poster either**, while buyers do discount the future value of the poster.
- The results were **in line with the sign effect** (Frederick, Loewenstein, and O'Donoghue 2002). However, subjects **did discount future losses of money in the previous experiments** with monetary intertemporal choices (Thaler 1981; Benzion et al. 1987), while we found the discounting of an item to be essentially **flat**.
- The specific psychological mechanism behind this lack of discounting in the loss of an item is still to be investigated.

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	stronger	weaker
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Further research

Thus, next experiment should be dealt with:

- Changing the item
- Field experiment
- Adding another transaction timings



References

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Further information?

