OWNERSHIP & VALUATION

Endowment Effect Experiment

Why the same object can be valued differently depending on whether a person owns it.



SELLER

Willingness to accept

BUYER

Willingness to pay

GAP

WTA above WTP

The classic experiment compares what owners demand to give up an item with what non-owners are willing to pay to acquire it. The ownership assignment should be random and the transaction should be real whenever possible.

01 THE QUESTION

02 THE CHOICE

03 THE MECHANISM

04 THE EVIDENCE

A practical guide to the experimental design, the economic intuition, and the interpretation of results.

01 / THE TASK

The experiment: put ownership to the test

A simple mug, pen, or other ordinary object can reveal whether ownership changes a participant's valuation - even when the object and information are otherwise identical.

THE CORE COMPARISON

Randomly assign participants to valuation roles. Owners state the minimum compensation they require to give up the item (WTA). Non-owners state the maximum amount they would pay to obtain it (WTP).

SELLERS

RECEIVE THE ITEM

State the minimum sale price. This is the willingness to accept (WTA).

BUYERS

RECEIVE CASH

State the maximum purchase price. This is the willingness to pay (WTP).

CHOOSERS

RECEIVE NEITHER

Choose between the item and cash at a posted price. This provides a useful comparison group.

A SIMPLE EXAMPLE

Suppose the average seller asks $8 to give up a mug, while the average buyer offers $4 to acquire the same mug. The $4 gap is an illustrative WTA-WTP difference; it is not a guaranteed result.

Keep the item, quality, instructions, and market information the same across roles. Random assignment helps make ownership status the main difference between groups.

Why ownership can change valuation

The endowment effect is a valuation asymmetry: giving up an owned item can feel different from acquiring an equivalent item.

THE MAIN EMPIRICAL SIGNATURE

WTA > WTP for the same good, under comparable conditions. The gap is often interpreted through reference dependence and loss aversion: the owner treats giving up the item as a loss, while the buyer treats obtaining it as a gain.

REFERENCE POINT

Ownership can establish a reference position. Once the mug is “mine,” surrendering it is coded as a loss rather than a neutral exchange.

LOSS AVERSION

If losses loom larger than equivalent gains, compensation demanded to give up the mug can exceed the amount a non-owner is willing to pay to acquire it.

MEASURING THE GAP

Endowment gap = mean WTA - mean WTP
Also report medians, distributions, and the proportion of participants who actually trade. A ratio can be informative, but it becomes unstable when WTP is near zero.

Important: a WTA-WTP difference is evidence of valuation asymmetry, but by itself it does not prove that loss aversion is the only mechanism.

A practical protocol for a clean comparison

Use real ownership, neutral instructions, and a binding exchange mechanism. The largest threat is allowing the buyer and seller groups to differ in ways other than ownership.

PROCEDURE

- Choose the good. Use a familiar, desirable item with a clear quality description and a visible retail value.
- Randomly assign roles. Give the item to sellers; give buyers an equivalent cash endowment or purchasing budget.
- Elicit values. Ask sellers for minimum WTA and buyers for maximum WTP using the same unit and a clear price scale.
- Make choices consequential. Use an actual trade at a posted price or an incentive-compatible mechanism such as a carefully explained BDM procedure.
- Record trades. Measure both stated valuations and completed transactions.

DESIGN AND ANALYSIS

- Keep item quality, information, and transaction costs identical across groups.
- Use random assignment and, where practical, anonymous decisions.
- Compare WTA and WTP distributions, not only group averages.
- Estimate the effect of ownership assignment on stated value and trade rates.

A SIMPLE ESTIMATING EQUATION

Value_i = alpha + beta(Owner_i) + controls + error_i

A positive beta is consistent with ownership raising stated valuation. Use robust standard errors and report the distribution; valuations can be skewed.

BDM IN ONE SENTENCE

A random market price is drawn after the participant reports a value; whether the trade occurs depends on the reported value relative to that price, while the transaction price is the random price. Explain and test comprehension before using it.

What a WTA-WTP gap does - and does not - show

A convincing endowment-effect study isolates ownership and makes valuation consequential. It should also consider competing explanations and the context in which the item is exchanged.

INTERPRETATION

- A higher WTA than WTP is consistent with an ownership-related valuation gap.
- A higher WTA among randomly endowed participants supports a causal effect of assignment to ownership in that design.
- Actual exchange rates help show whether stated values translate into behavior.

ALTERNATIVE EXPLANATIONS

- Strategic misreporting or misunderstanding of the pricing rule.
- Transaction costs, income effects, or unequal information.
- Experience with markets and repeated valuation can change responses.

DESIGN EXTENSIONS

- Compare goods with different levels of familiarity or attachment.
- Vary duration of ownership to test whether the effect grows over time.
- Add a chooser group and real trading opportunities.

FOUNDATIONAL READINGS

Knetsch, J. L. (1989). “The Endowment Effect and Evidence of Nonreversible Indifference Curves.” American Economic Review, 79(5), 1277-1284.

Kahneman, D., Knetsch, J. L. & Thaler, R. H. (1990). “Experimental Tests of the Endowment Effect and the Coase Theorem.” Journal of Political Economy, 98(6), 1325-1348.

A central lesson: ownership can change the reference point from which a trade is evaluated, but careful design is needed to distinguish that effect from market frictions and measurement artifacts.