

Two Instruments, Opposite Signs

— Operationalising One Phrase Two Ways Gave an Agreement of 0.019632: A Census of the Censuses over 43 Papers and 157 Items, and a Guess That Did Not Survive — [Paper 250]

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— *From thinking to syncing.* —

Abstract

How far apart can two operationalisations of one phrase land? This paper gives one instance with numbers: measuring the single phrase named a separator with two instruments, their agreement is **0.019632**, which is to say hardly any, and they return opposite signs on the same question. The material is the **43** papers of this body of work. No new mathematical theorem and no new law is claimed. First, the sizes of the censuses have a distribution. **43** papers announce a count in the title, the items number **157** in all, with mean **3.6512**, median **3** and maximum **8** (Section 2). Second, the first guess looked clean. The share of papers naming a separator rises monotonically with N from **0.3846** to **1.0000**, without a single exception (Section 3). Third, this is the core. Changing the instrument reversed the sign. An instrument that looks for a fixed phrasing gives a rank correlation with N of **−0.129870**, while one that merely looks for the word gives **+0.319843**: and the two instruments agree with each other at **0.019632**, which is to say hardly at all (Section 4). Fourth, controlling for date halved it. The raw **0.319843** becomes a partial rank correlation of **0.165732**, with $p = \mathbf{0.133}$ under a permutation test that shuffles within date blocks (Section 5). Fifth, the evidence sits on one side only. All **18** papers after number **200** name a separator, leaving no variance, so the correlation rests on **25** papers (Section 6). Sixth, a third instrument returned a third number. Counting occurrences of the word gives **0.360163**, and **0.204077** once date is controlled (Section 7).

Scope of this paper (scope note) : No new mathematical theorem and no new law is claimed: rank correlation, partial correlation, permutation tests, and the fact that a relation can change under stratification are all standard. No measured value is cited. What was counted is the text of the 248 papers of this body of work, and no external data is used. Nothing is claimed about the world: all 43 papers were written by the same author, so what is measured is a habit and not a property of words. It is not claimed that a word said to have N senses really has N : the count is a declaration by the one counting and has not been verified as a property of the object. No causal claim is made: Section 5 shows only that the correlation falls under control, and says nothing about what caused what. No threshold is placed on the p value: the number 0.133 is written down and no declaration of significance follows. The classification of separators is applied after the fact by this paper. It is coarse, and other divisions are equally possible. Relation to earlier papers: Paper 200 measured this body of work as its own data and recorded that the guess about separators converging toward questions was refuted by the count. This paper does the same along a different axis and obtains a second refutation. Paper 183 showed that one table can carry two correct answers: Sections 5 and 6 are that shape occurring in this body of work's own data. Paper 152 showed that sameness has four strengths: the two instruments of Section 4 are two strengths of having named a separator. Paper 186 showed that a proxy taken as a target comes apart from what it was meant to measure. This paper counts one step earlier, where two proxies already fail to agree with each other. Paper 58 showed that agreeing factors can have different roots. This paper treats disagreeing numbers rather than agreeing ones. Papers 228 and 241 built a ladder for the plus sign: Section 8 counts how that ladder avoids a combinatorial explosion. What is added is the distribution of census sizes, a demonstration that three instruments give three answers to one question, a test showing the correlation halves under control for date, and an explicit statement of which stratum carries the evidence.

1. Notation and placement

Question: when a property is said to have been measured, **nothing guarantees that a different way of measuring returns the same answer. This paper gives one instance of that, with numbers.**

Setting: this body of work contains many papers that open a word and count how many things it names. **Distance has six, mass has seven, the plus sign has eight. Those censuses are used here as the material.**

The material is the Japanese text of papers 1 through 249, 248 of them (number 47 is retired). No external data is used.

The guess made at the outset was this. With a small N two names suffice, but with a large N the reader is lost unless one axis is named, so papers with a large N ought to name a separator more often.

That guess became the occasion for changing the instrument. It was the guess that failed, but what this paper hands over is the numbers that came out of the failing.

2. The sizes have a distribution

Check 2.1: enumerate every paper announcing a count in its title.

<i>N</i>	papers
2	13
3	9
4	11
5	4
6	3
7	2
8	1

There are 43, with 157 items in all, mean 3.6512, median 3 and maximum 8.

Observation 2.2

Two, three and four stand roughly level, at 33 papers or 77 percent, and beyond four the numbers roughly halve at each step. The maximum is the eight senses of the plus sign in Paper 228.

Observation 2.3

This distribution is not a property of the world. Words with twelve senses surely exist, and they are unwritten because checking twelve and handing them to a reader is hard. What is measured is the capacity of the method, not the structure of its objects.

3. The first guess looked clean

Check 3.1: look for a sentence of the form the separator is such and such, together with the form what separates them is such and such, and take the share for each *N*.

N	papers	naming a separator	share
2	13	5	0.3846
3	9	5	0.5556
4	11	7	0.6364
5	4	3	0.7500
6	3	3	1.0000
7	2	2	1.0000
8	1	1	1.0000

Observation 3.2

It rises monotonically without a single exception. The rank correlation is 0.208396 and a permutation test gives $p = 0.0198$. It looks exactly like the guess.

Observation 3.3

Stopping here would have made a clean paper. It was not stopped, and what follows is this paper.

4. The core: changing the instrument reversed the sign

The instrument of Section 3 looks for a fixed phrasing. But the same thing is written in other ways too: with a colon, or as “here is the separator”. So take a second instrument: does the word appear in the text at all, and nothing more.

instrument	papers matched	rank correlation with N
a fixed phrasing (strict)	7/43	−0.129870
the word appears (wide)	26/43	+0.319843

Observation 4.1

The signs are opposite. The strict instrument says larger N names a separator less often, and the wide one says more often.

Observation 4.2

Worse. The two instruments agree with each other at **0.019632**: hardly at all. Both were meant to measure whether a separator was named, and they measured different things.

Observation 4.3

Among the 19 papers the strict instrument missed are 228, 229, 230, 234, 236, 237, 239 and 240. That is, the papers with large N fell out together. A preference in phrasing was itself correlated with N .

Observation 4.4

Paper 186 showed that a proxy taken as a target comes apart from what it was meant to measure. What is seen here is one step earlier: before anything is taken as a target, two proxies already disagree with each other. The answer is fixed at the moment the proxy is chosen.

Observation 4.5

Paper 152 showed that sameness has four strengths. What happened here is that having named a separator had two: and the two were nearly different quantities.

5. Controlling for date halved it

Check 5.1: with the wide instrument, measure against the paper number.

measured	rank correlation
N and naming	0.319843
N and paper number	0.415735
naming and paper number	0.444579
partial, controlling for paper number	0.165732

A permutation test that shuffles only within date blocks, run 200000 times, gives $p = 0.133$.

Observation 5.2

The paper number correlates with N and with naming alike. Later papers take on larger words and later papers name separators: the two happened together.

Observation 5.3

Under control the raw 0.319843 becomes 0.165732: 52 percent of the original. The other half was explained by date.

Observation 5.4

No causal claim is made here. What is shown is only that the correlation falls under control; it is not said that N caused the naming, nor that date caused both. No threshold is placed on the p value: the number 0.133 is written down and nothing is declared.

6. The evidence sits on one side only

Check 6.1: split at paper 200.

stratum	papers	mean N	naming	correlation within
up to paper 200	25	3.000	8 (32 percent)	0.3115
from paper 201	18	4.556	18 (100 percent)	cannot be computed

Observation 6.2

Every one of the **18** later papers names a separator, so there is no variance. A column with no variance yields no correlation, so the raw correlation rests on **25** papers.

Observation 6.3

The number **43** was not the amount of evidence. Writing that **43** papers were examined sounds strong, while **25** are doing the work.

Observation 6.4

Paper **183** showed that one table can give opposite answers once split into strata. The same shape occurs here: and this time it occurred in this body of work's own data.

7. A third instrument returned a third number

Check 7.1: instead of presence, count how often the word occurs. There are **83** occurrences in all, an average of **1.93** per paper.

measured	rank correlation
N and the number of occurrences	0.360163
paper number and occurrences	0.472969
partial, controlling for paper number	0.204077

Observation 7.2

Three instruments returned three numbers: -0.129870 , $+0.319843$ and $+0.360163$. Even after control they disagree, at 0.165732 and 0.204077 .

Observation 7.3

Here is the separator. The phrase having named a separator was not a quantity. Presence, phrasing, or frequency: until one is chosen, the question has no answer.

8. The ladder avoids a combinatorial explosion

A different question: what happens if these censuses are combined? Eight senses of plus times five of divide times six of equals gives **240**. Yet this body of work never multiplies them.

rung	question	where
rung 0	is there a binary operation at all	Paper 241
rung 1	does a change of coordinate turn it into addition	Paper 228, seven of the eight do
rung 2	what blocks the rest	non-commutativity, exactly one case

Observation 8.1

Whatever falls at one rung never reaches the next. So it does not become exhaustive. It is a sieve and not a product.

Observation 8.2

Division has the same shape. Paper 229 counted five obstructions to undoing multiplication, and opening one of them, the impossibility of dividing by zero, gave six. One rung at a time.

Observation 8.3

This shape was found after the fact and was not designed. Paper 241 was written after Paper 228: the ladder was built upward, not downward.

9. Separator and fences

The separator of this paper: what naming is measured with. A phrasing, a presence, or a frequency. The three were not one quantity.

Kinds of separator (a coarse division applied after the fact to the 26 papers): a concrete invariant is the largest group at 38 percent, what the predicate is applied to and what was allowed follow at 19 percent each, and what must be moved and where it is placed at 12 percent each.

Fences:

1. Nothing is claimed about the world: the 43 papers share one author, and a habit is what is measured.
2. It is not verified that a word said to have N senses has N .
3. No causal claim is made: only that the correlation falls under control.
4. No threshold is placed on the p value.
5. The classification of separators is coarse and applied after the fact.
6. This paper is not outside the 43 either: the next count will include it.

10. Roll call and closing

1. 43 papers, 157 items, mean 3.6512, median 3, maximum 8 (Check 2.1).
2. The first guess was monotone without exception (Check 3.1): 0.3846 to 1.0000.
3. Changing the instrument reversed the sign (Section 4): -0.129870 against $+0.319843$, the two agreeing at 0.019632.
4. Controlling for date halved it (Check 5.1): 0.319843 to 0.165732, $p = 0.133$.
5. The evidence rests on 25 papers (Check 6.1): the later 18 have no variance.
6. A third instrument gave a third number (Check 7.1): 0.360163, and 0.204077 under control.

Closing: when something is said to have been measured, nothing guarantees that another way of measuring returns the same answer. What this paper hands over is one instance with numbers: one phrase operationalised two ways,

agreeing at 0.019632 and pointing in opposite directions. A third instrument returned a third number. The answer was fixed at the moment the proxy was chosen.

How it came about: the guess was that a larger count brings a named separator. The numbers lined up exactly so, without a single exception. Then a change of instrument reversed the sign, a control for date halved the correlation, and the stratum carrying the evidence turned out to have no variance in 18 of the papers. What remains is not the guess but the fact that three instruments returned three answers. And this is the very objection this body of work has raised against others: that one word points at different things. This time the word was having named, and the thing it pointed at was the author. After Paper 200, this is the second refutation.

Revision Record

Second edition (September 2026): no claim, theorem or check has been altered from the first edition. In the English references, the lines citing earlier papers of this corpus still carried their Japanese titles; **they now carry the English titles.** **Nothing of substance has changed, and nothing has been withdrawn.**

The dashes used as separators in the text were replaced by punctuation (October 2026). No claim, number or reference was changed.

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