🌻 Factors Panel

Ideas Garden: Factors Panel

🏷️ **What you can do here:** See all the factors (causes and effects) in your data, ranked by how often they appear. Select multiple factors to rename them, merge similar ones, or delete unwanted entries. If you've added demographic data to your sources, you can also see statistical breakdowns showing which groups mention certain factors more often.
above both links and factors tables add a toggle "Use filters". If on (default) the table is filtered by the links filters. If off, we bypass this part of the pipeline and filter only by project and sources.

The Factors panel displays all unique labels from the current filter pipeline.

Table Features:

- Columns include:
- **Citation Count** – total number of citations of this factor (as cause or effect)
- **Source Count** – number of different sources mentioning this factor
- **Citation Count: In** – number of citations of this factor as an effect of something
- **Citation Count: Out** – number of citations of this factor as a cause of something
- **Outcomeness** – $\frac{in}{in+out}$ (how much a factor is an outcome vs a cause)
- **Influence** – "influence as a cause" score (Katz-style centrality in the causal direction, cause → effect). We shift the numbers so the smallest factor is **0** (makes differences easier to see), but we **don't** scale to 0..1.
- **Source Count: In** – number of sources mentioning this factor as an effect of something
- **Source Count: Out** – number of sources mentioning this factor as a cause of something

Why "Importance" can be better than Citation Count: Out:

- **Citation Count: Out** just counts how often a factor is used as a cause. If you point to *anything* a lot, you score high.
- **Influence** also looks at *what you point to*: causing a factor that goes on to cause lots of other things gives a factor more influence than causing a dead-end.
- Sorted by citation count (descending order)
- Click-to-select (no checkbox column)
- Server-side pagination consistent with other tables
- Actions column with edit button to open factor edit modal

Action Buttons:

- 🗑 Delete: Remove selected factors
- ✏ Relabel: Rename selected factors
- 🔍 Search/Replace: Find and replace text in factor names
- ✳ Merge: Combine multiple factors into one
- Buttons disabled until factors are selected
- 💡 Tip: Use Search/replace for quick, scoped relabeling.

Find out more about bulk delete and relabel of factors here.

Bulk factor labels editor

The search/replace functions in the factors and links tables are useful, but what if you have thousands of factors to look at? You might prefer this bulk editor.

Toggle the **Bulk Edit** switch to edit multiple factor labels at once. The table header remains visible for sorting and filtering, while the table body is replaced with a line-by-line editor.

Features:

- **Multi-cursor editing**: Use `Alt+Click` or `Ctrl+Alt+Up/Down` to add multiple cursors
- **Find occurrences**: Use `Ctrl+Alt+Right` to add next occurrence, `Ctrl+Alt+Left` for previous
- **Select all matches**: Use `Ctrl+Shift+L` to select all occurrences of selected text
- **Line-by-line editing**: You can only edit existing labels - you cannot add, remove, or reorder lines
- **Recoded labels**: Labels that have been recoded (shown with yellow background) are read-only and cannot be edited
- **Sort and filter**: The editor automatically updates when you sort or filter the table (any unsaved edits are discarded)
- **Important**: If any **label-transforming filters** are active in the filter pipeline (e.g. Soft Relabel / Zoom / Collapse / Remove brackets / Combine opposites / Soft Recode), the Factors table is showing **transformed labels**. Bulk Edit saves by **exact label text match**, so editing a displayed label like `foo` will only rename factors whose actual stored label is exactly `foo` (it will not rename all original labels currently shown as `foo`). Consider turning off label-transforming filters before bulk editing labels.

💡 **TIP to recode several factors into one:** Simply overwrite all the old factor labels with your desired label.

How it works:

1. Toggle **Bulk Edit** on
2. Edit factor labels directly in the editor
3. Press **Save Changes** to apply your edits
4. A confirmation dialog shows which labels will change and how many links will be affected
5. After saving, the editor refreshes to show the updated labels

Remember, what it shows depends on:

- any filters you set (sources, most frequent links, etc) — just like the map does
- any filters or sorting you set in the table itself. The bulk editor is really just a special version of the normal factors table, so it respects pagination etc. If you want to see more factors, set the "Page Size" (default is 10) to a larger number.

The editor has a second column on the right which provides some live info about the selected factor: source and citation counts, and a list of sources mentionoing it.

Search/replace

Near the top is a row containing a search box. If you type something into it,

- a replace box and a Replace button also appear.
- the table is filtered to show only matching rows

The search is **case sensitive**.

You can then alter what you see in the Replace box:

- in the factor label column in the table, you see a preview of what the affected rows would look like;
- if you delete all the text so the replace is empty, the preview shows the effect of deleting the search text from each label.

Then when you are satisfied, check all the checkboxes where you want to update the labels as shown. If you want, select all rows using the checkbox at the top of the column. Note, if there are more hits than fit on this page of your table, you'll want to either treat each page separately or increase the page size with the Page Size selector.

Finally, hit the Replace button to actually update the labels as shown in the rows you selected. What actually happens is that the Cause and Effect labels in all the currently selected links are changed. As you'd expect, this search/replace only affects the factors for the currently selected links: for example if you have only selected the first three sources, this update will not affect the links in the other sources.

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Demographic Breakdowns

Ideas Garden: The factors table (group comparisons + tests)

- **Breakdown selector** - Choose custom columns to analyze by demographics
- **Count type** - Source count (default) or citation count
- **Display mode** - Counts (default) or % of baseline (cell as a percent of that breakdown group's total across all factors)
- **Statistical testing** - Chi-squared analysis to identify significant patterns
- See also Statistical Significance Testing

Statistical Significance Testing

When you select exactly **one custom column** for breakdown, the factors table includes powerful chi-squared significance testing to identify factors that are preferentially mentioned by different groups.

Example bookmark:

- Factors: significant differences between age groups

Show Differences dropdown appears with threshold options:

- **Off** (default)
- **p < .1** (marginally significant)
- **p < .05** (significant)
- **p < .01** (highly significant)
- **p < .005** (very highly significant)

Visual indicators:

- **Significant column** - Shows "Yes" (red highlight) or "No"
- **Cell coloring** - Blue = mentioned more than expected, Orange = mentioned less than expected

Ordinal testing (numeric breakdowns):

- If the chosen breakdown is numeric-like (≥95% of non-missing values parse as numbers), an extra column **Ordinal Sig.** appears.
- It uses the Mantel linear-by-linear association (Cochran–Armitage trend) with ranks 1..k and the same 2×k totals as chi-squared.

- The existing **Significant** column (chi-squared) remains; you can compare both.
- The threshold from Show Differences applies to both tests.

in the factors table when factor-show-differences is on, we calculate chi-sq. but if over 95% of non-missing values in the column selected in #factor-custom-column-input can be interpreted as numeric, we should use an ordinal test instead, or apply an ordinal correction to make the chisq test more powerful

Developer note: Percent mode divides each factor's cell by the group total for that breakdown column. State keys: `factorDisplayMode`, `significanceThreshold`.