MaxDiff and Q-Sort

Trade offs that prioritize items

Steven Struhl

MaxDiff for prioritizing sets of concerns, Q-Sort for many items

MaxDiff

- Forced trade-off that makes respondents choose what is most important

- For providing relative importances for a set of items that do not make a whole product or service

  - e.g., corporate claims, general concerns, basic category needs

  - MaxDiff provides individual-level importances using HB analysis

Q-Sort

- Also prioritizes and can work with many items

  - A well-established guided sorting method with a long track record in psychology in particular

  - Similar output to MaxDiff but works only at the group level

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More about Max Diff: Have you seen a trade-off like this?

- Items are put into sets and respondents must choose which is most (and optionally least) important. Here is one trade-off:

When considering buying one of these products, which one is the <u>most</u> **important and which is the** <u>least</u> **important?**

Most Important		Least Important
☐	Highest quality	☐
☐	Best comfort/grip	☐
☐	Best safety features	☐

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- Respondents typically do 2 trade-offs per 3 items (so, e.g., 24 items would take 16 trade-offs).

- These responses lead to relative importances for the various attributes

- Much stronger differentiation of important vs not than anything we can get from direct ratings

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MaxDiff can handle graphics and messages:
Sample screen with pictures

- Below, trading off designs with pictures. MaxDiff, like other trade-offs, can extend in many directions.
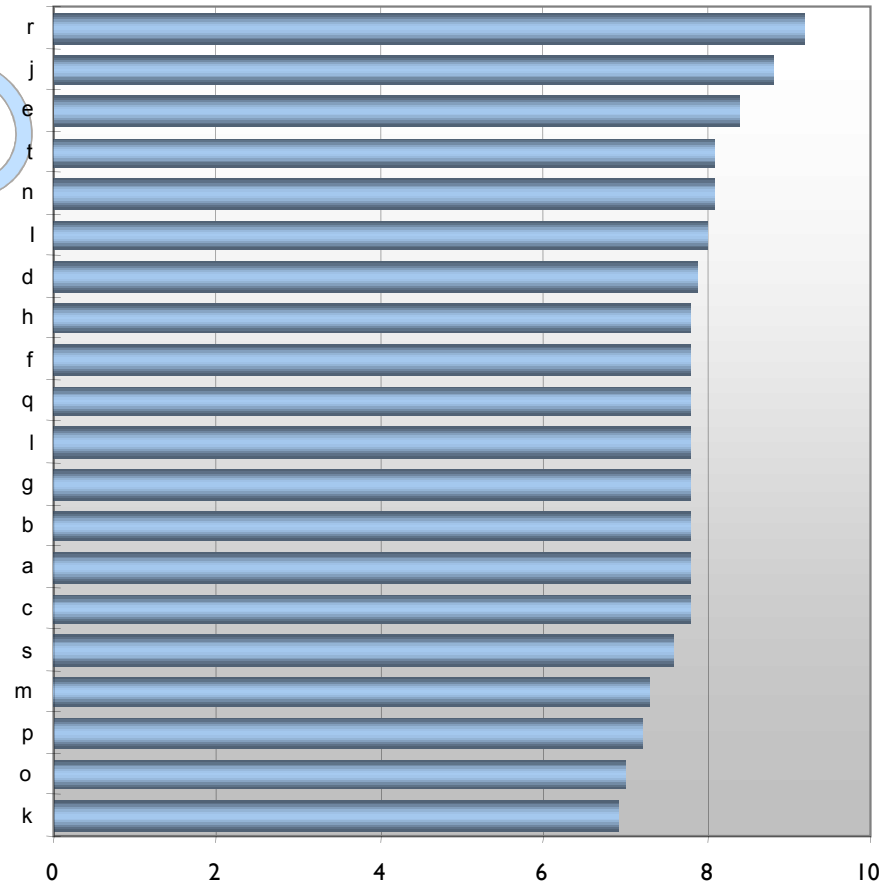
|	Looking at these three configurations, which ONE do you like the most and which ONE do you like the least?	
Like the most		**Like the least**
○		○
○		●
●		○

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MaxDiff reveals importances much more clearly than ratings

Same attributes tested in an experiment done with a split sample: MaxDiff shows differences much more clearly

0 to 10 rating scale

MaxDiff forced trade-off

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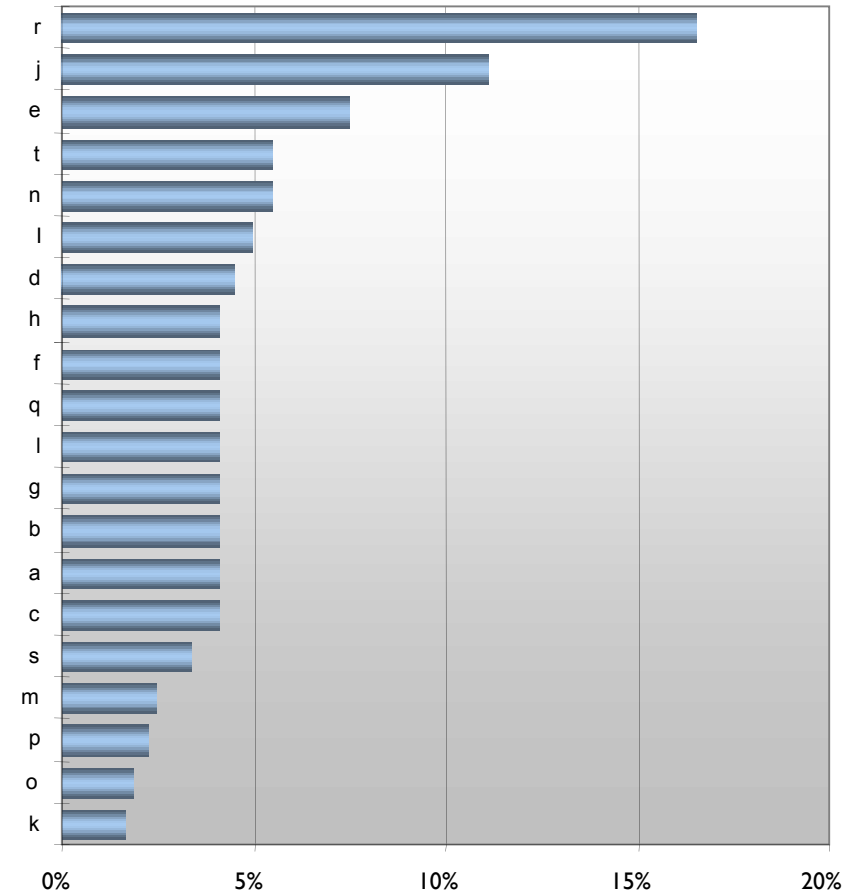
More about Q-Sort: A guided partial ranking for many items

- To get importances for a long list of items with Q-Sort, we use only the first part of a longer routine—

  - Guided partial ranking

    - Respondents do not sort all items:

      - Typically break list into top half/bottom half
      - Then top 5 (or top 10)
      - Then top 1, 2, 3 in order
      - Next do bottom 5 (or bottom 10)
      - Last choose worst, next worst, third worst

  - The last part of Q-Sort, which we do not use, groups respondents and can sound a little mystical

There is no way to get an interesting illustration about sorting into piles. So here is something By Tintoretto.

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Analyzing the sort: Thurstone's Case 5

- We analyze this with a well-established method called "Thurstone's Case 5"—in use since 1930
  - This converts rankings into scaled ratings that can be compared at the ordinal level
  - Thurstone was influential in psychometrics for many years
- Published reports show this working with **100 attributes**
  - We have successfully tried 80
- Results look very much like MaxDiff, only no individual level importances

The Thurstones (front center) and friends having a good time

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Q-sort: large numbers of items prioritized

- A disguised list of about 55 items disguised from a recent study

- List is indexed so average importance = 100

  - Two clear winners are about 5.0 and 4.8 times as important as the average

    - Index values 503 and 484 respectively

- Lowest items index at 26.3 and 26.5

- The top item is about 20 times as important as the least
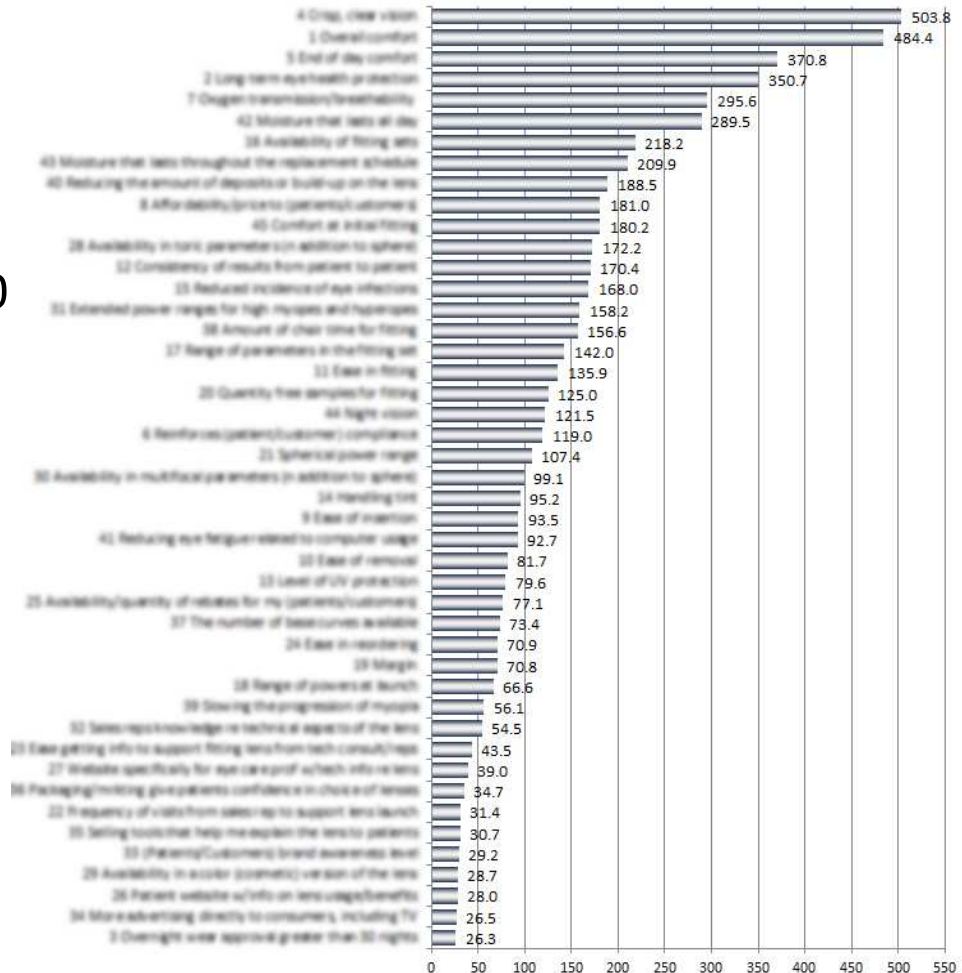
[1] items blurred from a recent study

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Pros and Cons: MaxDiff and Q-Sort

- MaxDiff Pro
  - Works with any kind of interview
    - Web, paper or phone
- MaxDiff Con
  - All attributes must be yes/no, no levels variations of the same attribute
    - i.e., we cannot use these to trade "stable for six months" vs. "stable for three months"
- Q-Sort Pro
  - Handles lists of attributes too long for MaxDiff
  - Looser about handling levels—they will not break this, but reading will be only approximate
  - Relatively easy analytically
- Q-Sort Con
  - Web or paper interviews only; not for phone
  - No individual-level data
- Con for both
  - Not intended for levels of attributes
    - We need conjoint or discrete choice to read these accurately

At least they didn't say "Prose and Cannes"
(Does the apostrophe really exist
so businesses can make plurals?)

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Questions? Comments?

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