Methods on the Move: Q methodology

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Why ‘methods on the move’?

• Capturing *process*
• The method, the subject matter and the researcher are all ‘on the move’
• ‘*Process thinking*’ – origins in science and philosophy – 1927 a special year…
• 1. Relativity (Einstein), 2. Research as *changing* the world (Quantum), 3. All in *process* (Process philosophy).
1. Relativity or *taking perspectives seriously*
1927

- William Stephenson got his PhD in physics
- The Solvay Conference in Brussels on Quantum physics (attended by Max Planck, Marie Curie, Albert Einstein, Niels Bohr, Erwin Schrödinger, Werner Heisenberg and several other luminaries).
2. Observations are part of the world and change it.
3. Process philosophy: taking time and perspective seriously

• Henri Bergson and the ‘fluid continuity of the real’ (France)
• A.N. Whitehead’s philosophy of events and occasions in *Process and Reality* (UK/US)
• Martin Heidegger on the temporality of existence in *Being and Time* (Germany)
1927

- William Stephenson got his PhD in physics
- The Solvay Conference in Brussels
- M. Heidegger published *Being and Time*
- H. Bergson awarded Nobel Prize
- A.N. Whitehead gives *Process and Reality* Gifford Lectures
- G.H. Mead gives *Mind, Self and Society* Lectures
G.H. Mead

• Engaged deeply with Einstein, Whitehead and Bergson to form a social psychology grounded in process thinking.
• The ‘objective reality of perspectives’
• Human society arises only when people are able to take the perspective of others
“in the field of any social science the objective data are those experiences of the individuals in which they take the attitude of the community, i.e. in which they enter into the perspectives of the other members of the community”
Recap. We need methods which:

- Take the reality of *perspectives* seriously
- Take *subjectivity* seriously by recognising the inseparability of observer and observed and the *intervention* of subject in the object
- Take time seriously and grapple with *processes*
For example: Q methodology

- Grasps subjectivity as a process-in-movement
- Based on the real relativity of perspectives
- Provides a means to identify the key perspectives of your participant group
- And allows us to explore their relations
A rapid history of Q methodology

- Invented circa 1935 by William Stephenson (Letter to Nature)
- Born, 1902
- PhD in Physics (Durham) 1927
- Key early mentor: Godfrey Thomson
- UCL psychology, 1926 (Spearman, Pearson, Burt)
- Oxford, 1936 (Director of Institute of experimental psychology)
- Chicago, 1948-56, Missouri, 1958-1972
Synopsis of Q methodology

Focus on the subjective dimension of any issue towards which different points-of-view can be expressed (e.g. ‘viewpoints on the role of qualitative methods in psychology’)

1. Each of a sample of participants (the p-set)
2. … sorts a sample of items (the q-set)
3. … into a subjectively meaningful pattern (the q-sort).
4. Resulting q-sorts are factor analysed by-person (q-analysis)
5. … yielding a set of factors whose interpretation reveals a set of points-of-view (the f-set)
Overview

• History
• Basic steps:
  Generating the Q (item) set
  Selecting the P (participant) set
  Collecting Q sort data
  Q Correlation and factoring
  Factor interpretation
• Conclusions
Basic Steps 1: Generating the Q (item) set

1. Estimate the ‘concourse’ or the ‘field of the sayable’, usually in the form of numerous statements
   - Interviews with involved participants
   - Literature review
   - Informal discussions

2. Reduce to a q-set of balanced items (typically between 40 & 80 items)
Divide concourse into relevant domains, for example…

• Epistemological issues (reliability and validity?)
• Ontological issues (constructionism vs positivism?)
• Comparative issues (relationship to ‘quantitative’ methods?)
• Pedagogical issues (value of standard texts?)
• Political issues (marginalization?)
Generate statements within each domain

Epistemological issues:
“The loss of reliability associated with qualitative methods is more than offset by their ecological validity.”

Political issues:
“It is very important to resist attempts to marginalise or devalue qualitative research.”

Comparative issues:
“Qualitative methods are every bit as scientific as quantitative methods.”
Basic Steps 2: Selecting the P (participant) set

• Normally between about 20 and 80 strategically (theoretically) sampled participants (enough to ‘capture’ available points of view on the issue)

• Note: the aim is *not* to estimate population statistics but to access diversity of point-of-view. Hence random samples are not relevant. Participants as ‘carriers of culture’
Identify relevant sub-sets of participants for inclusion

- Both expert and student representatives of different qualitative traditions (personal construct theorists, discourse analysts, conversation analysts, grounded theorists, and so on).

- Those who like to mix qualitative and quantitative methods and those who identify solely as quantitative or qualitative researchers.

- Those who work in applied fields and those who consider themselves pure researchers.

- Potential end-users of qualitative research.

- Those who are critical of psychology and those who believe in its current mission.

- Those with a particular political or moral orientation (e.g., feminist or Marxist researchers) and those who aspire to neutrality.
Basic Steps 3: Collecting data by Q-sort

Select a face-valid subjective dimension

Most disagree  \rightarrow Most agree

-6    -5    -4    -3    -2    -1    0    +1    +2    +3    +4    +5    +6

2 3 4 5 6 6 6
2 3 4 5 6 6 6
8

n=60
Q sorting
Basic Steps 4: Data analysis

a) Raw data

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Basic Steps 5: factor interpretation

1. Generate factor arrays

2. Interpret individual factor arrays
   a) using complete set of item placements
   b) drawing upon open-ended comments

3. Interpret relations between factor arrays
1) Generating factor arrays

Qsort e (0.916)

Qsort f (0.873)

Qsort d (0.858)

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6

Factor 1

Q sort array
Factor array for factor 1

-6  -5  -4  -3  -2  -1   0   +1   +2   +3   +4   +5   +6
 7  12  17  37  28  13   9   4  46  32  25  29  52
 1  54  51  43  56  45  16  49  14  33  50  57  36
19  11  26  22  58  27  59  48  38  41  10
 23  34  18  30  24  15  53   3   31
 44  21  35  60  20   6  55
 47   8  42   2   5
   39
   40
2. Interpreting factor arrays
Factor 1

Defending the standing of qualitative methods within psychology?

52. It is very important to resist attempts to marginalise or devalue qualitative research. +6
1. Ultimately there is very little method in qualitative methods. -6

7. You should never trust a qualitative researcher who claims factual status for their findings. -6

54. The more we drift in a qualitative direction, the more the prestige and influence of our discipline is threatened. -5

19. Qualitative methods offer nothing more than a reading of a reading. -5

12. Qualitative researchers have done enough criticising: it’s time they proved themselves with substantial empirical findings of their own. -5
The political nature of research

31. Whether we like it or not, most research is inherently political: good qualitative work makes this apparent. +4

36. The value of qualitative research lies in the freedom of expression it affords its participants. +6

10. The virtue of qualitative methods is that they give some control and voice back to the participant. +5

41. Good qualitative research works inductively or up from the ground. +4
But without giving up on positive knowledge…

57. Qualitative researchers are generating a cumulative knowledge base that will ultimately deepen our understanding. +5

29. Qualitative methods are every bit as scientific as quantitative methods. +5
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3. Relations between factors: Interpretation of factor 2

22. Qualitative research has an important exploratory role to play prior to the application of quantitative methods in a mature science.
Within rather than without a ‘conventional’ scientific paradigm...

40. The loss of reliability associated with qualitative methods is more than offset by their ecological validity.

2. Qualitative methods are necessary because many research topics are not amenable to objective measurement.
A significant difference?

18. One cannot properly access psychological phenomena using qualitative methods. Factor 1 Factor 2

-2 -6
Not all methods are equally scientific...

29. Qualitative methods are every bit as scientific as qualitative methods.

7. You should never trust a qualitative researcher who claims a factual status for their findings.
The need for standardization...

28. There is an acute need to develop standardised ways of doing qualitative research.

27. The first rule of qualitative research is that there are no rules.

16. All qualitative research should follow a good ‘how to do it’ guide.
The politics of knowledge? No thanks!

31. Whether we like it or not, most research is inherently political: good qualitative work makes this apparent. +4 -3

15. Adopting qualitative research methods should be seen as a political act. +1 -4

3. Social constructionism is the theoretical framework that best links all qualitative methods. +3 -3
Factor 1

Qualitative methods as tools for a participant-centred critical psychology

Factor 2

Qualitative methods as part of the arsenal of conventional psychology
Discussion and Conclusions

1. A caveat – how to throw the ‘snapshots’ into the process of a ‘movie’?
2. Engaging people with different perspectives in real-time discussion.
3. Confronting different perspectives
4. Recognising and facilitating change in perspective and action
Some useful resources

- Free software for running Q analysis can be downloaded here http://schmolck.userweb.mwn.de/qmethod/
- Q methodology website: http://www.qmethod.org
- Q methodology e-mail discussion list: Send the command “subscribe Q-Method <your name>” (without quotations or brackets) to Listserv@listserv.kent.edu
- QArchive website: http://www.uww.edu/personal/fac/cottlec/QArchive/qindex.htm
- Journal - Operant Subjectivity, quarterly journal of the International Society for the Scientific Study ofSubjectivity; contact Mark Popovich <mpopovic@gw.bsu.edu>, ISSSS Treasurer: $30 ISSSS membership, journal included; $10 students.