# Using Mixed-Methods Evaluation Methods Taking Into Account Gender/Class Realities: Using QCA and NVIVO

Wendy Olsen

Funded by **British Academy: Innovation in Global Labour Research Using Deep Linkage and Mixed Methods**

# Applications to:

- Theorising **Bangladesh Indebtedness**
  - Mediated by involvement in an NGO
  - All NGOs are different; and
- Indian Women's Work
  - Mediated by involvement in either the self-help groups, an MFI, Or an NGO, or the Employment Guarantee Scheme

# Steps for a Mixed-Methods Evaluation Approach

- Step 1: a complex theory of the ontic realities, ie the types of things
- Step 2: fieldwork
- Step 3: analysing early, & linking results
- Step 4: keyness, discourses
- Step 5: perhaps QCA analysis
- Step 6: transparency: database
- Step 7: draw conclusions

# Key Sampling Themes

- **Representativeness** at some level
- Idea of the **replication of entities** across a geographic space
- **Generalisation** to known sub-populations and concrete spaces

# Step 1: a complex theory of the ontic realities, ie the types of things

- The ontic reality is treated by statisticians as Structured
  - Outcome = result of structures, events.

Logic is

- Y = results arise from S, I, E, C, random error

I = institutions, local entities

C = context

A non-statistical approach.

# Discussion of Key Sampling Themes

# ADVICE

- You may **triangulate** a national dataset onto your local data
  - **Match questions on demographics**, take a random sample not non-random!
  - Randomness at some, not all levels is, overall, non-random
  - But generalisation can be made at the level-to-which randomness was applied, e.g. by geographic transect walks.
    - E.g. a village. Or all the Slums of Dhaka if the Slums were stage 1 and
    - The choice of households was stage 2
    - And the choice of individuals (KISH) was stage 3
    - So be very professional about selection of cases.
    - Multi-stage quota sampling vs. Multi-stage RANDOM sampling: The difference is in the degree of REPLACEMENT of non-response cases.

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Never sample on the outcome variable.

For example on income levels, if you want to explain the change in income over time.

# NVIVO Keyness Analysis of Discourses in Large Dataset ( With Example of Matrix Results from South India)

Wendy Olsen 2016

Gender Norms Project



Acknowledging funding of ESRC DFID Pov. Allev. Fund and British Academy

# Next Steps:

- Step 2: fieldwork
- Step 3: analysing early, & linking results
- Step 4: keyness

# How to conduct a Keyness Analysis for a Social Science Research Project.

1. Pool all the transcripts
2. Find out the keyness of words
3. Code up the concordances
4. Group the words into discourses
5. Interpret selected discourses only
6. Treat each one of those very carefully: **the** dominant discourse **must be discerned, then the** marginalised, deviant and innovative (intertextual**) ones.**
7. Trace key arguments through these. (Mixed Methods)

# How the Keyness Analysis is Done

1. **Keyness of words**
2. **Discourses too**
3. **Interpretations:**
   dominant discourse;
   Marginalised & intertextual ones.
4. **Trace key arguments through these. (Mixed Methods)**

**Key References:**


- ***Touri, M., and N. Koteyko*** (2014) "Using Corpus Linguistic Software", ***International Journal of Social Research Methodology***
- ***Fairclough, Norman*** various, books on ***Discourse and Power.***

# Part One: The Keyness of Words (Touri and Koteyko 2014)

- **Keyness is the relative prevalence of words in one corpus of material over another.**
- **Specifically, count S words in corpus, vs. N words in the British National Corpus of English Language.**
- **Use the formula provided here.**

# Formula for Keyness

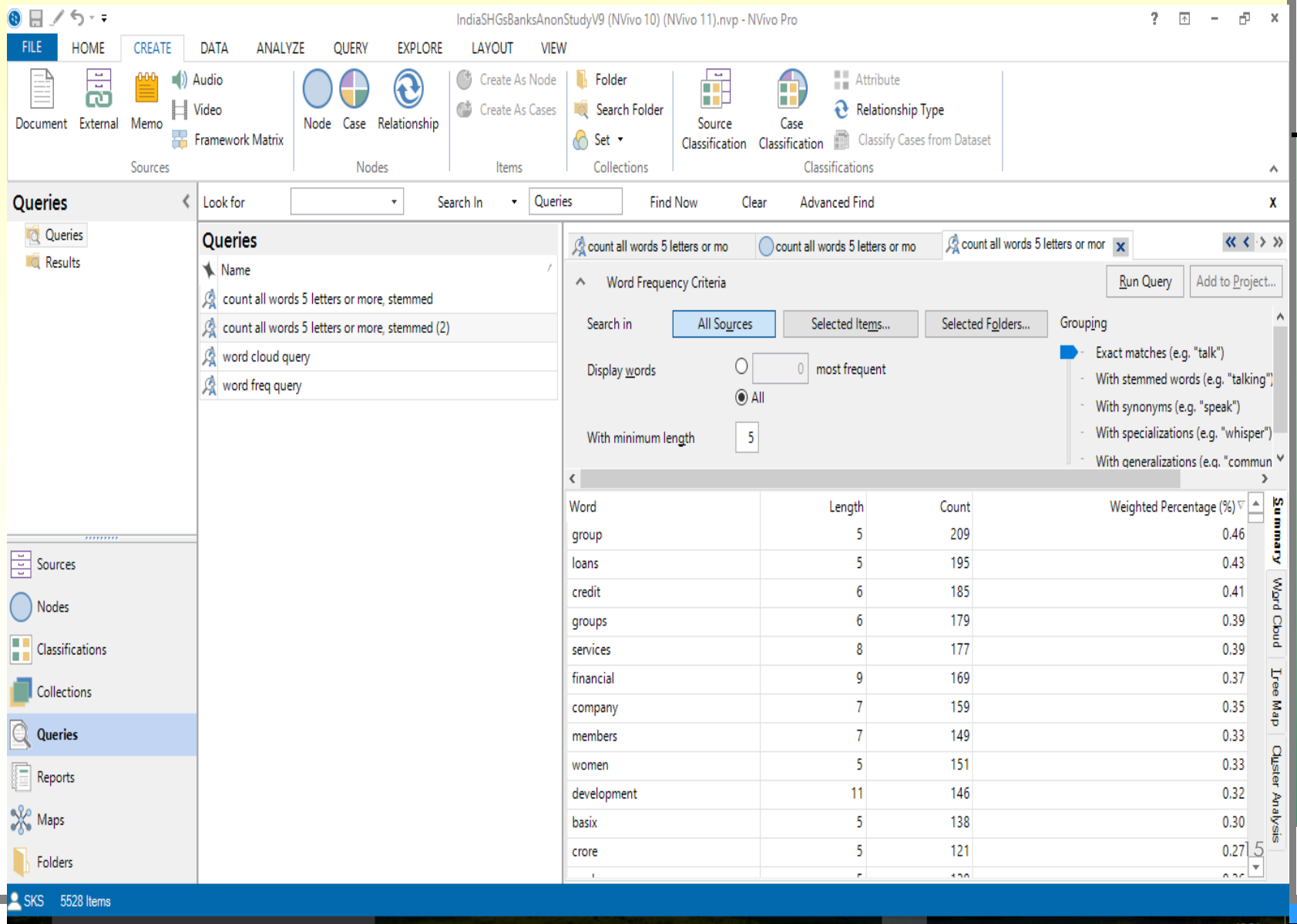
- $Keyness = odds\ ratio$
  - **The odds of a word appearing in the fieldwork based corpus vs. the odds of it appearing in the national corpus**

- $K = \frac{\frac{s_i}{S - s_i}}{\frac{n_i}{N - n_i}}$ For each word I

Counting words using NVIVO then Matching words using STATA or SPSS

Report output as a word list, RANKED.

# Word Count Query in NVIVO

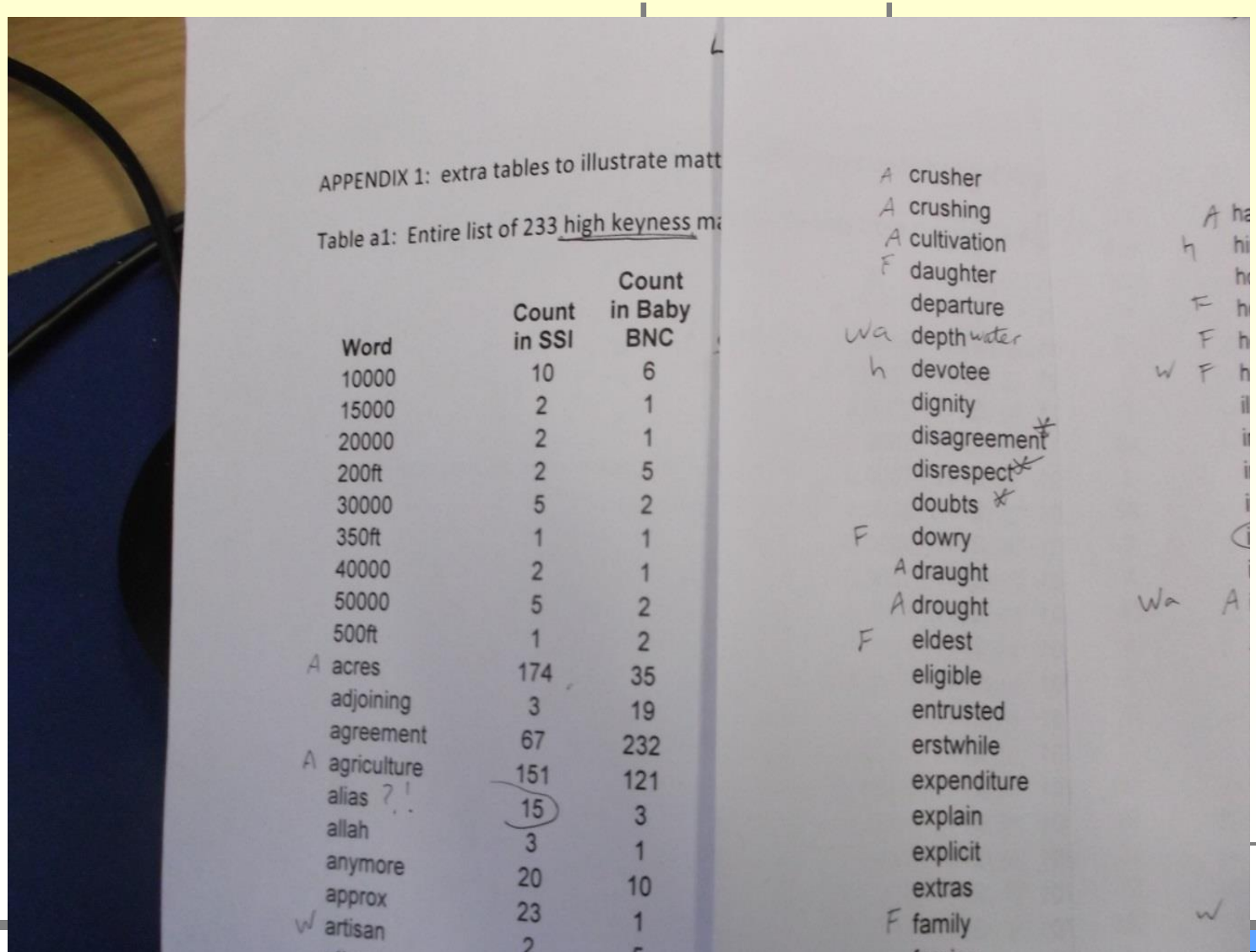


# Excel Spreadsheet – Highest Keyness

| Delemmatised | | (mention) | of mentions | | | Ratio |
|---|---|---|---|---|---|---|
| Word | Length | Count | Percent | BNC Prevalence | BNC % of BNC | Odds |
| brickfields | 11 | 2 | 0% | 2 | 0% | 4738.06 |
| laws' | 5 | 2 | 0% | 3 | 0% | 3158.71 |
| purdah' | 7 | 1 | 0% | 2 | 0% | 2369.03 |
| coops | 5 | 2 | 0% | 11 | 0% | 861.47 |
| passbook | 8 | 1 | 0% | 6 | 0% | 789.68 |
| betel | 5 | 3 | 0% | 23 | 0% | 618.01 |
| mindset | 7 | 1 | 0% | 11 | 0% | 430.73 |
| parishad | 8 | 2 | 0% | 25 | 0% | 379.04 |
| stipends | 8 | 2 | 0% | 38 | 0% | 249.37 |
| negatively | 10 | 2 | 0% | 52 | 0% | 182.23 |
| sons' | 5 | 1 | 0% | 28 | 0% | 169.22 |
| educate | 7 | 12 | 1% | 365 | 0% | 155.77 |
| workloads | 9 | 1 | 0% | 43 | 0% | 110.19 |
| rears | 5 | 1 | 0% | 45 | 0% | 105.29 |
| chores | 6 | 6 | 1% | 275 | 0% | 103.38 |
| robbers | 7 | 5 | 0% | 244 | 0% | 97.09 |
| tailoring | 9 | 3 | 0% | 147 | 0% | 96.70 |
| dhaka | 5 | 1 | 0% | 55 | 0% | 86.15 |

# Illustration of Keyness by Odds Ratio.

We created a spreadsheet to



APPENDIX 1: extra tables to illustrate matt

Table a1: Entire list of 233 high keyness ma

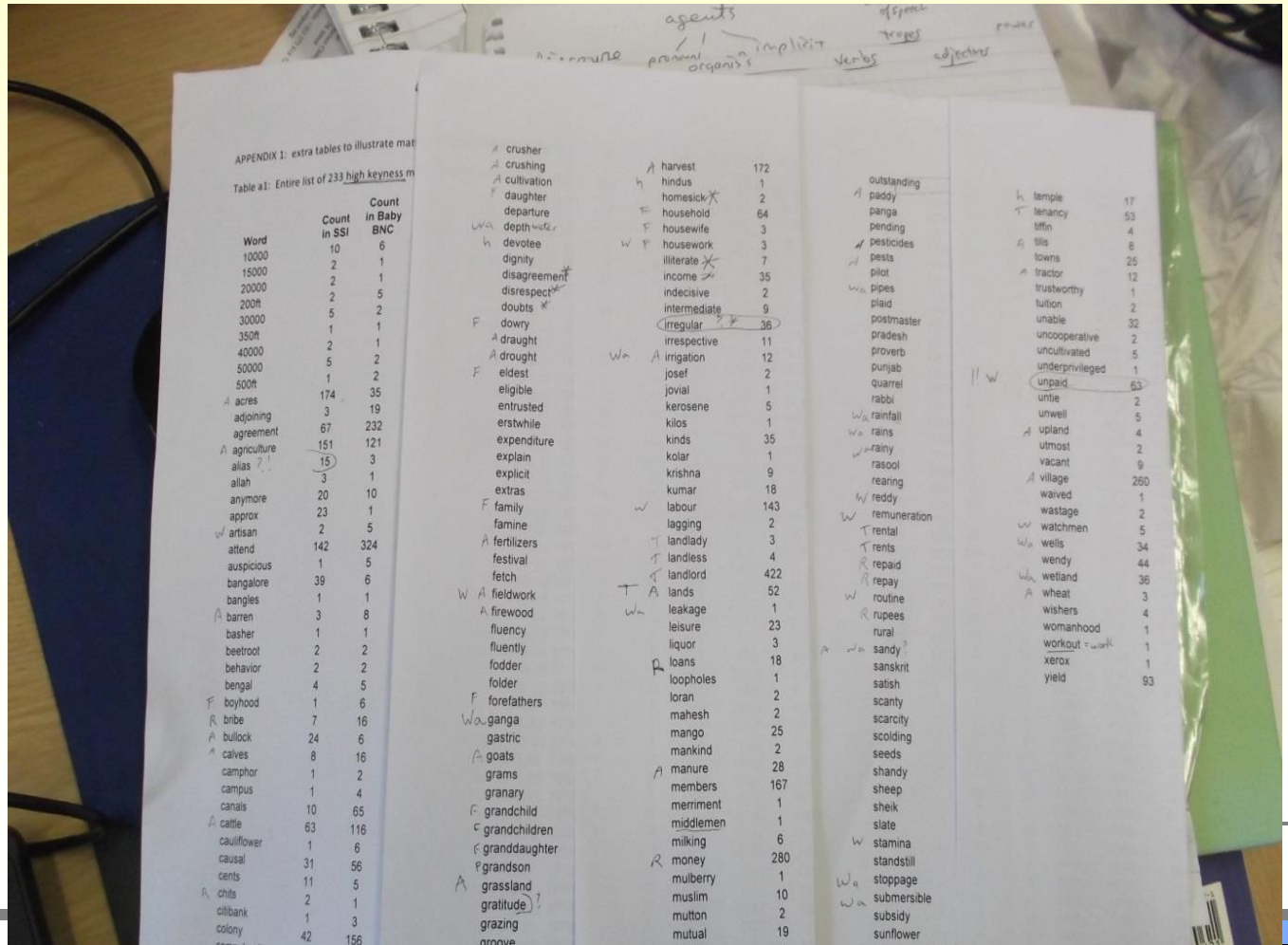
| Word | Count in SSI | Count in Baby BNC |
|---|---|---|
| 10000 | 10 | 6 |
| 15000 | 2 | 1 |
| 20000 | 2 | 1 |
| 200ft | 2 | 5 |
| 30000 | 5 | 2 |
| 350ft | 1 | 1 |
| 40000 | 2 | 1 |
| 50000 | 5 | 2 |
| 500ft | 1 | 2 |
| acres | 174 | 35 |
| adjoining | 3 | 19 |
| agreement | 67 | 232 |
| agriculture | 151 | 121 |
| alias | 15 | 3 |
| allah | 3 | 1 |
| anymore | 20 | 10 |
| approx | 23 | 1 |
| artisan | 2 | |

crusher
crushing
cultivation
daughter
departure
depth water
devotee
dignity
disagreement
disrespect
doubts
dowry
draught
drought
eldest
eligible
entrusted
erstwhile
expenditure
explain
explicit
extras
family

# In this example from South India, 39 interviews with couples.

- 39 Interviews
- 47,000 Words
- We reduced these to 233 key words. **Extremely concise summary.**
- An expert groups these into discourse topics.

# Interim Product Conforms to Miles & Huberman's Advised "one-page summary"



# Here's an example (a small South Indian project)

APPENDIX 1: extra tables to illustrate matters from South Indian Mixed Methods Tenancy Project

Table a1: Entire list of 233 high keyness matched words from the SSIs (Alphabetical)

| Word | Count in SSI | Count in Baby BNC | oddsbnc | oddsssi | oddsratio | Size of Baby BNC | Size of SSI Data |
|---|---|---|---|---|---|---|---|
| 10000 | 10 | 6 | 0.0002 | 0.0037 | 24.22 | 39701 | 2741 |
| 15000 | 2 | 1 | 0.0000 | 0.0007 | 28.99 | 39701 | 2741 |
| 20000 | 2 | 1 | 0.0000 | 0.0007 | 28.99 | 39701 | 2741 |
| 200ft | 2 | 5 | 0.0001 | 0.0007 | 5.80 | 39701 | 2741 |
| 30000 | 5 | 2 | 0.0001 | 0.0018 | 36.27 | 39701 | 2741 |
| 350ft | 1 | 1 | 0.0000 | 0.0004 | 14.49 | 39701 | 2741 |
| 40000 | 2 | 1 | 0.0000 | 0.0007 | 28.99 | 39701 | 2741 |
| 50000 | 5 | 2 | 0.0001 | 0.0018 | 36.27 | 39701 | 2741 |
| 500ft | 1 | 2 | 0.0001 | 0.0004 | 7.24 | 39701 | 2741 |
| acres | 174 | 35 | 0.0009 | 0.0678 | 76.82 | 39701 | 2741 |
| adjoining | 3 | 19 | 0.0005 | 0.0011 | 2.29 | 39701 | 2741 |
| agreement | 67 | 232 | 0.0059 | 0.0251 | 4.26 | 39701 | 2741 |
| agriculture | 151 | 121 | 0.0031 | 0.0583 | 19.07 | 39701 | 2741 |
| alias | 15 | 3 | 0.0001 | 0.0055 | 72.81 | 39701 | 2741 |
| allah | 3 | 1 | 0.0000 | 0.0011 | 43.50 | 39701 | 2741 |
| anymore | 20 | 10 | 0.0003 | 0.0074 | 29.17 | 39701 | 2741 |
| approx | 23 | 1 | 0.0000 | 0.0085 | 335.95 | 39701 | 2741 |

- Annotate and summarise the Key Terms.
- Group them into dominant discourses.
- This is also like thematic analysis, initially.
  - **Discourses are sets of rules which are coherent but which are held to only via normed practices, and which can be broken, at a certain price.**
- Example of patriarchal talk about marriage as an exchange of assets.
- Next: **Locate the marginalised discourses**

# Steps for a Mixed-Methods Evaluation Approach

- **Step 1: a complex theory of the ontic realities, ie the types of things**
- **Step 2: fieldwork**
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- **Step 4: keyness, *discourses***
- Step 5: perhaps QCA analysis
- Step 6: transparency: database
- Step 7: draw conclusions

# Discourses we found (South India; North India)

- Dominant ones:
  - Agriculture as production
  - Family as duty, obligations ( disciplining)
  - Moneylending **as a solution**
- Marginal ones:
  - Agriculture as a burden the older generation carry, disliked
  - Family as conflict
  - Moneylending and debt **as a problem**

# SCALE of the DATABASE: A Small Research Project in Bangladesh

| 1 interview | 673 raw words of 5+ letters | **396 "words" i.e. word-roots, in one interview, if you stem the words** | **By hand** |
|---|---|---|---|
| 11 interviews | 1666 words | 1249 after stemming | By NVIVO |
| 32 interviews | 2798 words | **2066** word-roots, after stemming | By NVIVO |

# Using the Words with Highest Keyness

- We set a cutoff level for keyness (the odds ratio) e.g. 4, or 9.
- Collect the concordances using NVIVO
- You now have extensive quotations to compare and contrast.
- **Link the survey data to this database.**

# REMINDER: My Keyness Method

1. Pool all the transcripts using NVIVO.
1. Find out the keyness of words
2. Code up the concordances
3. Group the words into discourses
4. Interpret selected discourses only
5. ***Treat each one of those very carefully***
6. ***Trace key arguments through them.***

# COMPARATIVE NVIVO

Results for two discourses (family talk and money talk) [india 1 and bangla 1 combined] Mentioned within 30 words of each other, in combination.

| | A : Tightness node | B : money | C : problems | D : spend | E : works |
|---|---|---|---|---|---|
| 1 : Family | 20 | 18 | 11 | 9 | 22 |
| 2 : children | 12 | 10 | 6 | 5 | 11 |
| 3 : daughter | 15 | 6 | 3 | 0 | 13 |
| 4 : husband | 10 | 6 | 8 | 1 | 11 |
| 5 : mother | 11 | 6 | 1 | 4 | 11 |

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- ***Step 5: perhaps QCA analysis***
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# Qualitative Comparative Analysis

Logic is

- Y = results arise from S, I, E, C, random error

I = institutions, local entities

C = context

A non-statistical approach.

**Is event E necessary, or sufficient for Y?**

# Aims and Means of QCA

**Aims**

- To focus on one outcome.
- How does the effect of X or T or E on that outcome change depending upon the contexts?
- Circumstances matter
- Measure to what extent it was the case.

**Means**

- Insert a survey matrix into fsQCA freeware
- **Produce tests of necessity of EACH condition for Y**
- **Then test for sufficient PATHWAYS.**
- **Test the results using a measure, or an F Test**
- **See my GITHUB freeware.**

# Details of the QCA F-Tests

1 We first define our terms and conceptual framework (S, I, E, X, Y, C)

**2 Empirical measure of Csuff (consistency for sufficiency of X for Y)**

**3 Empirical measure of Goodness-of-fit (F-tests) for each pathway to Y**

**See https://github.com/WendyOlsen/fsgof**

# Amending the QCA for treatments, impacts of interventions

- In logic add ‘T’ as a new event
- Allow it to work as a ‘necessary’ cause (test) of higher levels of Y
- Allow it to be considered as a sufficient pathway for higher levels of Y
- Allow it to be considered as part of sufficient combination pathways for higher levels of Y

# Practical Example

Average debt was Taka 20,200 per household in Round 1 2016, while 38 of the households borrowed from their employer (out of 445 households), averaging 16,200 Taka. None of these who borrowed from employers were widows or divorced female household heads.

| Social Class of the Household Via Both Male & Female Primary & Secondary Occupations | Number of Households (%) | Average Total Debt 2016 |
|---|---|---|
| Professional | 27 (6%) | 36,000 Taka |
| Self-employed with employees | 92 (21%) | 33,000 Taka |
| Employed | 34 (8%) | 22,000 Taka |
| Own account | 236 (53%) | 17,000 Taka |
| Manual Labourer | 34 (8%) | 4,000 Taka |
| Family Worker | 1 (<1%) | 0 |
| Unemployed | 1 (<1%) | 55,000 Taka |
| Housewife | 6 (1%) | 333 Taka |
| Student | 1 (<1%) | 0 |
| Retired | 13 (3%) | 4,800 Taka |
| Overall | 445 (100%) | 20,000 Taka |

# Applications to:

- Theorising Bangladesh Indebtedness
  - Mediated by involvement in an NGO
  - All NGOs are different; and
  - Debt is higher in higher rural social classes
- **Indian and Bangladesh Rural Women's Work**
  - **Mediated by involvement in either the self-help groups, an MFI, Or an NGO, or the Employment Guarantee Schemes**

**These are in turn mediated by social class.**

# Sample of Raw Debt Data – Bangladesh

Women who are case-studies in the ASA paper on debt, women's work and discourses of collective solid

A. Three less poor and three working poor women in our survey:

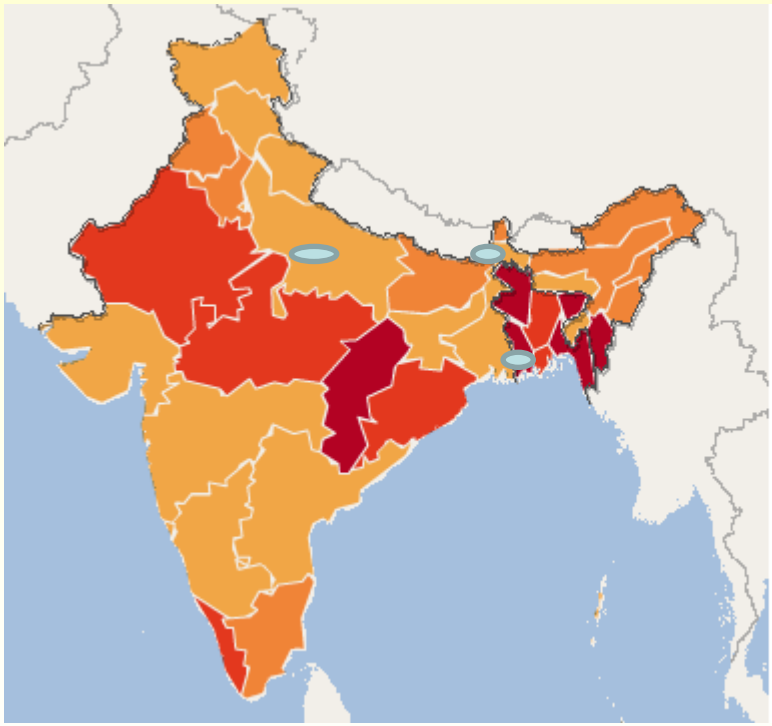
| | QID | age | eduyears | femhead | relig | satisfied? | How Satisfied? | composite | Modern |
|---|---|---|---|---|---|---|---|---|---|
| 440. | 67 | 49 | 6 | 1 | Hindu | 1 | Satisfied | 8.970914 | 2.59 |
| 441. | 371 | 57 | 0 | 1 | Muslim | 0 | Very Dissatisfied | -10.55005 | .59 |
| 442. | 358 | 23 | 7 | 0 | Muslim | 0 | Dissatisfied | 8.479168 | .59 |
| 443. | 203 | 17 | 0 | 0 | Muslim | 0 | Dissatisfied | -3.575279 | - .07 |
| 444. | 351 | 29 | 9 | 0 | Hindu | 1 | Satisfied | 2.313156 | 1.26 |
| 445. | 404 | 32 | 0 | 1 | Muslim | 1 | Satisfied | 5.92374 | - .07 |

Mean over 445 women: 35 yrs, 3.3 years, 7% fhh, 13% Hindu, 69% satisfied or very satisfied,
Mean of the composite index is .12 and mean of the modern index is 0.

B. What each woman actually does compared with the husband:

| | QID | name | mainocc | fpocc | fsocc | fhh |
|---|---|---|---|---|---|---|
| 440. | 67 | Shuchonda | Professional | Housewife | Own account | 1 |
| 441. | 371 | Ambia | Housewife | Housewife | . | 1 |
| 442. | 358 | Aminul | Self-employed with empl | Housewife | Own account | 0 |
| 443. | 203 | Hakima | Manual Labourer | Housewife | . | 0 |
| 444. | 351 | Mollika | Own account | Housewife | Manual Labourer | 0 |
| 445. | 404 | Aleya | Manual Labourer | Housewife | Manual Labourer | 1 |

# Where Research Occurred



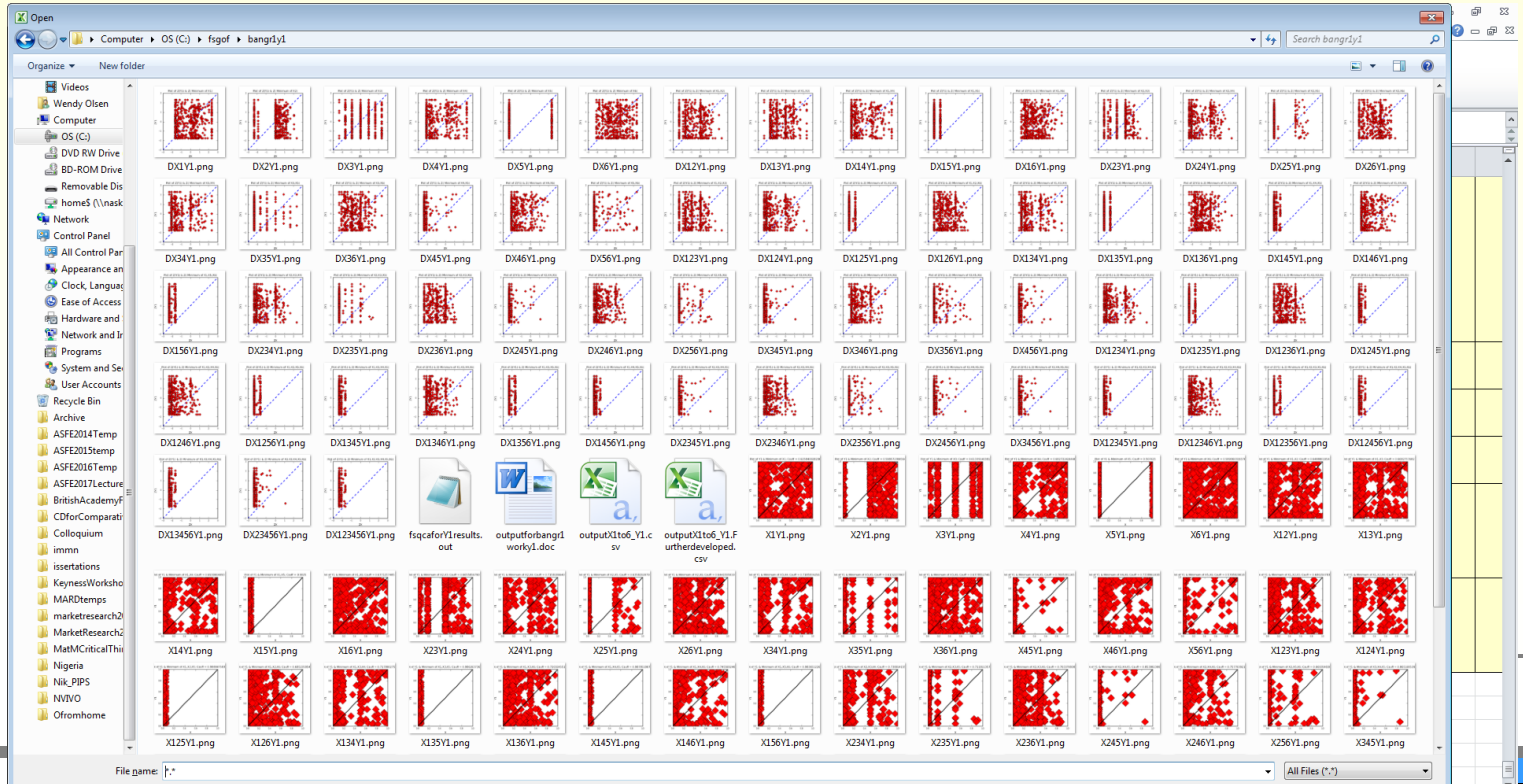
# How NVIVO Helps

- **Third case study of low income women in rural Bangladesh**
  - ***Aleya***, Muslim, has <0.5 acres of land in far north. Her husband has deserted her and he already had 2 wives when he married her. Class manufacture. She and friends have created a savings society, and to save [illegible] she puts in a fixed amount of rice each week. … She was influenced by the [illegible], which came to the village in the past, and gave her a goat. She [illegible] with two daughters.
  - **Q: Has your husband left you?**
  - **990 A: He has.**
  - **998 Q: Why did he leave?**
  - **999 A: He just left. He had taken me to Dhaka… But then my husband left me in debt. I had to repay the loans, I had to pay rent so I had a job in the garment sector for 1.5 years**

**NOTICE THE LINE NUMBERS AND THE HOUSEHOLD FACTS IN THE INTRODUCTION.**

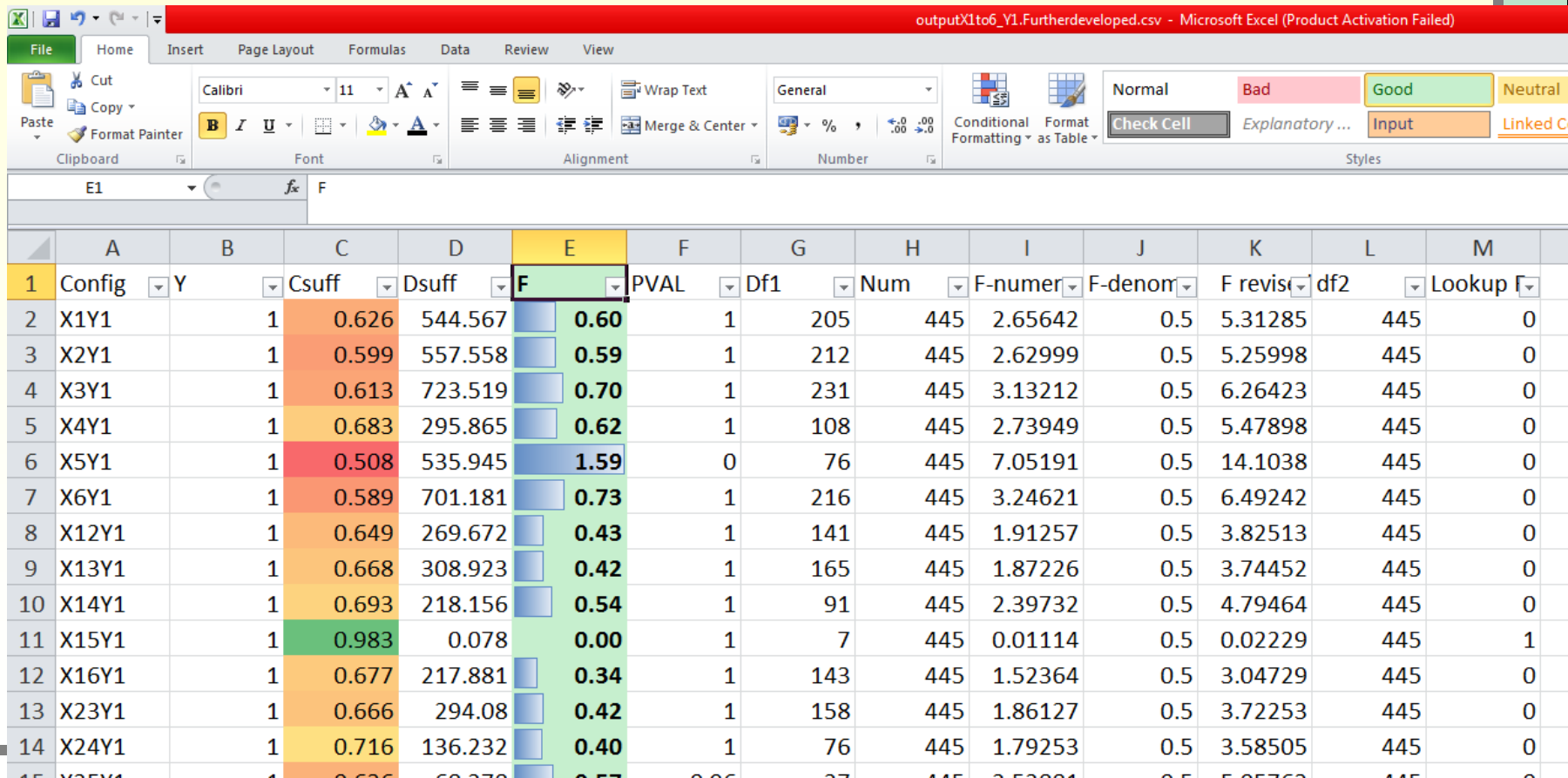
# Results from QCA Part for India and Bangladesh

- Step 1. Using fsgof, we can glimpse how each pathway has sufficient cause. Then list key pathways.



# Step 2. Run fsQCA

- I do this in a simple spreadsheet and do not need to use fsQCA software.




| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Config | Y | Csuff | Dsuff | F | PVAL | Df1 | Num | F-numer | F-denom | F revise | df2 | Lookup F |
| 2 | X1Y1 | 1 | 0.626 | 544.567 | 0.60 | 1 | 205 | 445 | 2.65642 | 0.5 | 5.31285 | 445 | 0 |
| 3 | X2Y1 | 1 | 0.599 | 557.558 | 0.59 | 1 | 212 | 445 | 2.62999 | 0.5 | 5.25998 | 445 | 0 |
| 4 | X3Y1 | 1 | 0.613 | 723.519 | 0.70 | 1 | 231 | 445 | 3.13212 | 0.5 | 6.26423 | 445 | 0 |
| 5 | X4Y1 | 1 | 0.683 | 295.865 | 0.62 | 1 | 108 | 445 | 2.73949 | 0.5 | 5.47898 | 445 | 0 |
| 6 | X5Y1 | 1 | 0.508 | 535.945 | 1.59 | 0 | 76 | 445 | 7.05191 | 0.5 | 14.1038 | 445 | 0 |
| 7 | X6Y1 | 1 | 0.589 | 701.181 | 0.73 | 1 | 216 | 445 | 3.24621 | 0.5 | 6.49242 | 445 | 0 |
| 8 | X12Y1 | 1 | 0.649 | 269.672 | 0.43 | 1 | 141 | 445 | 1.91257 | 0.5 | 3.82513 | 445 | 0 |
| 9 | X13Y1 | 1 | 0.668 | 308.923 | 0.42 | 1 | 165 | 445 | 1.87226 | 0.5 | 3.74452 | 445 | 0 |
| 10 | X14Y1 | 1 | 0.693 | 218.156 | 0.54 | 1 | 91 | 445 | 2.39732 | 0.5 | 4.79464 | 445 | 0 |
| 11 | X15Y1 | 1 | 0.983 | 0.078 | 0.00 | 1 | 7 | 445 | 0.01114 | 0.5 | 0.02229 | 445 | 1 |
| 12 | X16Y1 | 1 | 0.677 | 217.881 | 0.34 | 1 | 143 | 445 | 1.52364 | 0.5 | 3.04729 | 445 | 0 |
| 13 | X23Y1 | 1 | 0.666 | 294.08 | 0.42 | 1 | 158 | 445 | 1.86127 | 0.5 | 3.72253 | 445 | 0 |
| 14 | X24Y1 | 1 | 0.716 | 136.232 | 0.40 | 1 | 76 | 445 | 1.79253 | 0.5 | 3.58505 | 445 | 0 |

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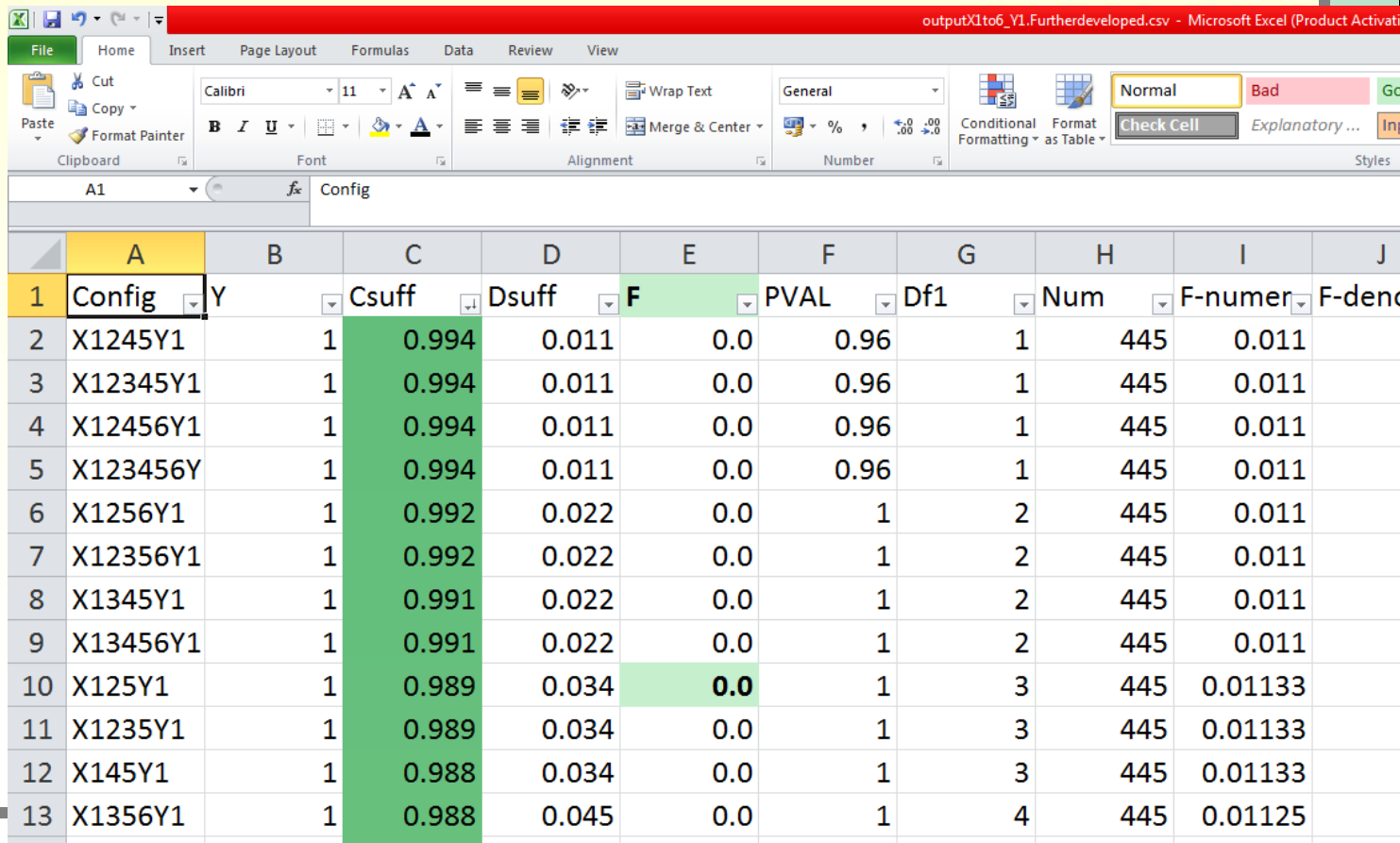
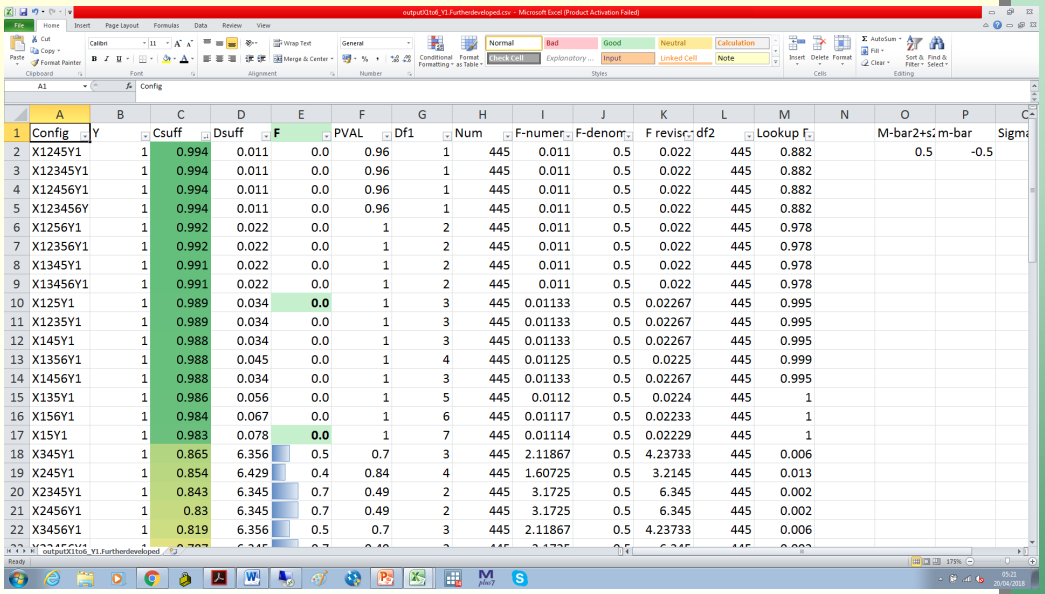



| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Config | Y | Csuff | Dsuff | F | PVAL | Df1 | Num | F-numer | F-denc |
| 2 | X1245Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | |
| 3 | X12345Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | |
| 4 | X12456Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | |
| 5 | X123456Y | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | |
| 6 | X1256Y1 | 1 | 0.992 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | |
| 7 | X12356Y1 | 1 | 0.992 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | |
| 8 | X1345Y1 | 1 | 0.991 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | |
| 9 | X13456Y1 | 1 | 0.991 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | |
| 10 | X125Y1 | 1 | 0.989 | 0.034 | **0.0** | 1 | 3 | 445 | 0.01133 | |
| 11 | X1235Y1 | 1 | 0.989 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | |
| 12 | X145Y1 | 1 | 0.988 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | |
| 13 | X1356Y1 | 1 | 0.988 | 0.045 | 0.0 | 1 | 4 | 445 | 0.01125 | |

# Step 2. Run fsQCA

- I do this in a simple spreadsheet and I can use fsQCA software to combine pathways.



| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Config | Y | Csuff | Dsuff | F | PVAL | Df1 | Num | F-numer | F-denom | F revis | df2 | Lookup F | | M-bar2+s | m-bar |
| 2 | X1245Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.882 | | 0.5 | -0.5 |
| 3 | X12345Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.882 | | | |
| 4 | X12456Y1 | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.882 | | | |
| 5 | X123456Y | 1 | 0.994 | 0.011 | 0.0 | 0.96 | 1 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.882 | | | |
| 6 | X1256Y1 | 1 | 0.992 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.978 | | | |
| 7 | X12356Y1 | 1 | 0.992 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.978 | | | |
| 8 | X1345Y1 | 1 | 0.991 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.978 | | | |
| 9 | X13456Y1 | 1 | 0.991 | 0.022 | 0.0 | 1 | 2 | 445 | 0.011 | 0.5 | 0.022 | 445 | 0.978 | | | |
| 10 | X125Y1 | 1 | 0.989 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | 0.5 | 0.02267 | 445 | 0.995 | | | |
| 11 | X1235Y1 | 1 | 0.989 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | 0.5 | 0.02267 | 445 | 0.995 | | | |
| 12 | X145Y1 | 1 | 0.988 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | 0.5 | 0.02267 | 445 | 0.995 | | | |
| 13 | X1356Y1 | 1 | 0.988 | 0.045 | 0.0 | 1 | 4 | 445 | 0.01125 | 0.5 | 0.0225 | 445 | 0.999 | | | |
| 14 | X1456Y1 | 1 | 0.988 | 0.034 | 0.0 | 1 | 3 | 445 | 0.01133 | 0.5 | 0.02267 | 445 | 0.995 | | | |
| 15 | X135Y1 | 1 | 0.986 | 0.056 | 0.0 | 1 | 5 | 445 | 0.0112 | 0.5 | 0.0224 | 445 | 1 | | | |
| 16 | X156Y1 | 1 | 0.984 | 0.067 | 0.0 | 1 | 6 | 445 | 0.01117 | 0.5 | 0.02233 | 445 | 1 | | | |
| 17 | X15Y1 | 1 | 0.983 | 0.078 | 0.0 | 1 | 7 | 445 | 0.01114 | 0.5 | 0.02229 | 445 | 1 | | | |
| 18 | X345Y1 | 1 | 0.865 | 6.356 | 0.5 | 0.7 | 3 | 445 | 2.11867 | 0.5 | 4.23733 | 445 | 0.006 | | | |
| 19 | X245Y1 | 1 | 0.854 | 6.429 | 0.4 | 0.84 | 4 | 445 | 1.60725 | 0.5 | 3.2145 | 445 | 0.013 | | | |
| 20 | X2345Y1 | 1 | 0.843 | 6.345 | 0.7 | 0.49 | 2 | 445 | 3.1725 | 0.5 | 6.345 | 445 | 0.002 | | | |
| 21 | X2456Y1 | 1 | 0.83 | 6.345 | 0.7 | 0.49 | 2 | 445 | 3.1725 | 0.5 | 6.345 | 445 | 0.002 | | | |
| 22 | X3456Y1 | 1 | 0.819 | 6.356 | 0.5 | 0.7 | 3 | 445 | 2.11867 | 0.5 | 4.23733 | 445 | 0.006 | | | |

- Notice F test

Has good discern ment.

- Notice also that the sample sizes matter.

# Prospects for Bangladesh Debt Write-Up Using QCA & NVIVO

- Analyse, grasp inner tensions of the multiple roles played by debt

Organise: Analyse outcome patterns including the NGO memberships and debt uptake; assets

# Reminder: **Mixed Mode Data**

- **Step 1: ontic exploration, list the types of things, name the key processes,**
  - **SAMPLING: Get samples which have CONTRASTS on BOTH X and Y**
  - **AND ON T, the treatment event (low/high!) or (Yes/No)**
  - **And on contextual factors (see leaflet)**
  - **Make sure the qualitative cases are chosen from among the pre- and post-intervention sample cases.**
- Step 2: fieldwork
- Step 3: analysing early, & linking results
- Step 4: keyness, discourses
- Step 5: perhaps QCA analysis
- Step 6: transparency: database
- **Step 7: draw conclusions**

# Discussion

# Critiques and Responses

- RCT critique
- Unobserved heterogeneity critique
- Responses: **Complex differentiation of how causal mechanisms work**

# Critique 2

- Endogeneity critique
  - **(it says that the key factors in your model can't be distinguished from the irrelevant ones you have included because you've included too many factors)**
- **Responses:**
  - **Complex interactions → do not ignore possible pathway reversal phenomena!**
    - **Example of the role religion plays in investment**
  - **That's why deductive statistics is weaker.**
  - **Parsimonious QCA explanatory model.**

# Conclusions

- Ontic complexity
- Teamwork
- Combining the keyness stage with a selective interpretation stage; and
- Add A QCA or Fuzzy Set QCA Stage.
- Models and results are debated in an ongoing, open-ended way.
- We try to make the interpretation match, complement or contradict the original **Research Question.**
- **Be rigorous and transparent.**

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- John has programmed in Python to break up the British National Corpus into parts and put them into NVIVO. Counting the word frequencies in Baby BNC in NVIVO, he then compared these with the word frequencies in each qualitative data set.
- See GITHUB for the programme, searching on either John McLoughlin or Wendy Olsen.

# See Also:

- See also a calibration example at: https://www.facebook.com/groups/mixednetwork/
- Integrated Mixed Methods Network
- And many examples of QCA and Fuzzy Set Analysis of Cases at www.compasss.org (*sic*)
- And JISCMAIL QUAL-COMPARE (190 members) email list. Free to join.

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