Questioning certainty: a case-study of modalised *wh*-questions

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Aims and scope

• Project on grammatical ≠ between **research** articles (RAs) and **popular** science articles (PAs).

• **Interpersonal** ≠ reflected in grammatical expression of stance, hedging, presupposition…

• Today: **Wh**- questions with past **modals**: Ex: *Our own Western bankers could not control the quality of credit at slower growth rates, so why should Chinese bankers be any better?*
Why study questions? = reflect writer/reader relation.

“The ways academic writers use questions are closely related to their assessments of appropriate reader relationships and, as a result, are likely to differ across generic and disciplinary contexts” (Hyland 2002: 530).

Why these questions? = they question certainty.

Ex: These analyses assumed that large cities inevitably create higher levels of crime and violence […But] how could cities be blamed when the predominantly rural societies of the distant past were far more violent than the predominantly urban societies of the recent past?
1. Presentation of the corpus.
2. Rhetorical questions.
3. Results from corpus analysis and discussion.
Composition of the corpus

Articles in **British English**, written between **2000 and 2012**.

**Specialised subcorpus**
- 500,000 words
- Eco
- Astro
- Philo
- Applied Maths
- History

**Popularised subcorpus**
- 500,000 words
- Eco
- Astro
- Philo
- Applied Maths
- History
Rhetorical questions

• Ordinary *wh*-questions contain presupposition:
  Ex: Who stole the car? ➔ Someone stole the car.

• Rhetorical Q = Negation of the presupposition
  (Ducrot & Anscombe 1981).
  Ex: Who would steal a newspaper? ➔ Nobody would steal a newspaper.

• “Biased assertions” (Sadock 1971).

• Felicity conditions: uninformativity / shared background (Rohde 2006).
Presupposition in rhetorical questions

- Presupposition strongly or weakly negated.
- Negation of either modal or $p$.

Ex: Once you have shown that there are no races, then what could racist people possibly be racist about?

Ex: Why would people find it difficult to accept the idea that limitedness is required for thought?

- Why/How-questions: two presuppositions:
  a) There is a reason why $P$.
  b) $P$ is true.
A typology of rhetorical questions

Rhetorical

Polyphonic

Polemic

Non-polyphonic

Pseudo-polemic
General results

- Few observations (73) but differences statistically significant.
- Disciplinary distribution:
  - philosophy > economics > history > mathematics > astronomy (0)
  - Same pattern as ordinary questions.

- Most frequent constructions:
  How could > Why should > Why would > What could
Non-polyphonic questions

- Rhetorical
  - Polyphonic
    - Polemic
    - Pseudo-polemic
  - Non-polyphonic
Non-polyphonic questions

= presupposition not attributed to anyone (ONE voice only).

Ex: *In the case of a limited ‘God’, we would not only not know whether we had got it right, we would not know if the word of such a ‘God’ was right even if we knew correctly what his word was. Who would judge it proper to call such a powerful but limited being ‘God’ at all?*

- Rhetorical: (i) = ‘Nobody would’ (ii) NPI: *at all.* (iii) *After all* test.
- **Strong negation of** _p_ (**∼p** obvious for writer & reader).

- QNT results: RAs: 1 – PAs: 15 (Χ² = 10.3 (df =1), p<0.01).
- RAs = debate (cf. Hyland, Fløttum) → highly polyphonic.
- Rhetorical modes: - Argt in PAs / + Info / Narration.
- Appeal to reader’s common sense + shared ground.
Polyphonic questions

- **Rhetorical**
  - **Polyphonic**
  - **Non-polyphonic**
    - **Polemic**
    - **Pseudo-polemic**
Polyphonic questions

= Question and presupposition: 2 different sources.

Ex: *Historians have never quite shaken off the idea that the medieval era was one of stagnation. As for my own subject of medieval science, it almost sounds like an oxymoron. How could any rational knowledge exist among all that superstition?*

• 2 types: polemic vs pseudo-polemic.

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<thead>
<tr>
<th></th>
<th>Polemic</th>
<th>Pseudo</th>
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<tbody>
<tr>
<td>RAs</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>PAs</td>
<td>20</td>
<td>8</td>
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</table>

\[X^2 = 1.06 \text{ (df=1), } p > 0.05\]

⇒ Null-hypothesis not rejected ⇒ No QNT ≠ between RAs & PAs.
Polemic questions

- Rhetorical
  - Polyphonic
    - Polemic
  - Non-polyphonic
    - Pseudo-polemic
= Presupposition of expert 1 negated by expert 2 (usually = author).

Ex: The calls by politicians and others for better regulation of access to the cockle beds to prevent future tragedies from occurring recognises the failure of the present system. Yet, it is not clear why we should believe that state-regulated access will work in the future when it has failed so dramatically in the past.

• QNT: no ≠ in RAs and PAs.

• But QLT ≠ : Source of presupposition is vague in PAs:
  – Undefined non-expert group (Politicians and others, European observers, the Germans, the German position)
  – Popular belief (a possibility that, the idea that, modern audience)
  – Group of experts (consequentialists, deontologists, Austrian ideas, historians, in other interpretations, many theologians).
Polemic questions (2)

- RAs: source of presupposition:
  - Expert clearly identified.
  - Proper name or pronoun and often subject.

Ex: More interesting are the remarks Moore makes right toward the end of Proof. There he points out, in Reidian spirit, that he cannot prove his premises but also does not have to. (…) This makes it a bit difficult to figure out how Moore could think that he does not need a proof of his premises.
Pseudo-polemic questions

= Presupposition of author fictively negated by reader:

Ex: Deciding the relative merits of these viewpoints is an empirical not an ideological matter, and a satisfactory answer is crucially important if global poverty and inequality are to be addressed. **Why might capitalism not be established successfully?** One reason is that state policy forbids it, as in the USSR and in pre-reforms China, or at least did not facilitate it as in much of post-colonial Africa where ‘African Socialism’ was attempted.

1. Starting with a fact (*p* clearly factual or counterfactual)
2. Question anticipates incomprehension from lay-reader (= *You may wonder why it might not be established successfully*).
3. Author explains (often explicit answer).

⇒ Expected in PAs: explicative mode (Grize 1990, Adam 1992).
Pseudo-polemic questions

• But as many occurrences in RAs: why?

→ RAs: author anticipates objections from peers.
→ Argumentation / justification:

Ex: Similarly, claims widely recognised as unrealistic are a feature of seemingly all mathematical deductivist endeavour in modern economics (...). Why should this be? And specifically, why do I suppose that the emphasis on formalistic modelling is the problem? My answer, simply put, can be expressed in the following three propositions.

1. I make a claim.
2. You may wonder why I think/say is it the case and you may object to this.
3. I provide further evidence to support my claim.
Questioning certainty: varying degrees of negation

- Direct vs indirect questions (Often in indirect questions, matrix weakly negates \( p \))

**Ex:** *it is not clear at all how Moore would or could have situated* himself *in the current debate.* (\( \neq \) Moore would not or could not have situated himself…).

\( \Rightarrow \) How could he have situated himself? \( \approx \) He couldn’t have.

- Non-polyphonic: \( p \) strongly negated

**Ex:** *I cannot see many theologians admitting it, let alone most traditional monotheistic believers.* *Where would my certitude in anything be then?* It would be just like having no God. (= There would be no certitude).

- Pseudo-polemic: \( p \) **factual** for author/**questioned** from reader’s point of view.

**Ex:** *Why should these matters of bibliographical priority be of any interest to us?*

- Polemic: negation of \( p \) strengthened by:
  - NPI (Ex: *why on earth would anyone* accept that there is such a thing..?)
  - *Given that* (Ex: *It is difficult to see how reform of the SGP could overcome this problem, given that* Germany would in effect be able to veto reforms…)
  - **How could:** more than other constructions.
Conclusion

• Different Writer/Reader relationships in RAs and PAs reflected in the grammar:
  – QNT polyphonic / non-polyphonic.
  – QLT use of polemic and pseudo-polemic.
• Questioning certainty (± neg. of presupposition):
  – Past modals ~ weak NPIs (Zwarts 1996).
  – Degree of questioning influenced by other contextual elements.
• Further research: grammar of popularisation, other questions (ordinary & rhetorical) in scientific writing.
References

- Sadock 1971
Corpus: specialised sources

Peer-Reviewed Academic Journals. Written by and for experts.

SOURCES:
The Historian
The Historical Journal
IMA Journal of Applied Mathematics
Journal of Logic & Analysis
Journal of the London Mathematical Society
Analysis
European Journal of Philosophy
Journal of Moral Philosophy
Metaphilosophy
Minerva - An Internet Journal of Philosophy
Proceedings of the Aristotelian Society
Cambridge Journal of Economics
Monthly Proceedings of the Royal Astronomical Society
Popularisation articles written by experts for the general public:
“History Today is a unique cultural institution, bringing the best in historical writing and research to a wide audience.”

SOURCES:
History Today
Plus Maths Magazine
Think
Economic Affairs
World Economics
Astronomy Now Magazine
Popular Astronomy
Ratiocinative questions

• Questions in RAs and PAs ➔ no response.
• But not necessarily “rhetorical”:

Ex: *How should facts about obligation shape deliberation?* In particular, *how should a promise shape our thinking about whether to fulfil it?* For a simple rationalist there are two alternatives: either a promise provides us with a good reason to fulfil it or it provides us with a decisive reason to fulfil it.

• “Rhetoricity” tests fail: *yet / after all / by any chance.*

➔ No biased assertion ➔ Rejected.
General results (1)

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<thead>
<tr>
<th></th>
<th>RAs</th>
<th>PAs</th>
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<tbody>
<tr>
<td>Direct polemic interrogatives</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Direct pseudo-polemic interrogatives</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Indirect polemic interrogatives</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Indirect pseudo-polemic interrogatives</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL POLYPHONIC</strong></td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>Direct non-polyphonic interrogatives</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Indirect non-polyphonic interrogatives</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL NON-POLYPHONIC</strong></td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL RHETORICAL</strong></td>
<td>30</td>
<td>43</td>
</tr>
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</table>

= Few observations but statistically significant.