The Grammar of Mediation

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Aims and scope

• Hypothesis: popularisation ⊂ specific grammatical features.

• Some of these features reflect the stance of the mediator in relation to the lay-person.

• Case-study: grammaticalised hedging in popularised and specialised discourse.
1. Methodology (corpus).
2. Towards a rhetorical characterisation of popularisation: Smith’s Modes of Discourse.
Composition of the corpus

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

**Specialised subcorpus**
- 500,000 words

**Popularised subcorpus**
- 500,000 words

Eco | Astro | Philo | Applied Maths | History
--- | --- | --- | --- | ---
--- | --- | --- | --- | ---
--- | --- | --- | --- | ---
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
Towards a rhetorical characterisation of popularisation

• Texts: formally **heterogeneous**.
• Need for *formally* and *functionally* homogeneous rhetorical sections:
  – IMRAD, moves, etc.
  – But **specific to RAs**.
  – Popular discourse: more **varied**:

*In August 1717 George had the symptoms of haemorrhoids, or swellings in the anal arteries. (...) The whole matter was kept from the English courtiers and only the trusted Mohammed was able to persuade the king to undergo a rectal examination. All proved well, although George was advised to avoid sitting on a saddle.*
• “Building blocks” of discourse:
  – Formal and pragmatic properties.
    • Ex: *Argument*: more subordination.
    • Ex: *Information*: bridging the knowledge gap.
  – DM distribution is genre-defining.
    • Ex: *Narration*: biography ≠ abstract.
• DM ∈ communicative competence
  • Ex: Intuition of changes of modes.
The 8 main discourse modes (1)

**Narration** = sequence of specific events and states.

**Description** = attribution of properties to a specific referent.

... the Town Hall (...) is oblong, raised from the ground on granite stilts (...).

**Report** = specific events/states anchored to Speech Time.

This month sees the release of Bryan Singer's new Hollywood movie Valkyrie,

**Information** = uncontroversial generic events/states.

Most men spent significant parts of their lives within homes. While men did spend more time in coffee houses, taverns, or steakhouses than women, (...).

**Metadiscourse** = author’s (or other experts’) approach/guidance.

In this paper, we revisit Lewis’s argument.
The 8 main discourse modes (2)

**Argument** = stance in relation to a fact or a proposition.

But when there are such correlations, we suggest, the invariance requirement loses its plausibility. Thus Lewis’s argument against the desire-as-belief thesis appears to be valid only in cases in which it is unsound.

**Instruction** = process to reach a given goal.

Make a small fold half way up the right side of the paper. Make a crease connecting points A and C.

**Dialogue** = alternating speech turns with thematic cohesion.

PHILOSOPHER: Why are we calling off the attack?
GENERAL: Because the Germans know we are going to attack.
PHILOSOPHER: But the Germans don't know we are going to attack.
SPY: Yes they do, I heard them discussing it.
Discourse Modes: A typology

Narration  Report  Description  Information

Meta-discourse  Instruction  Dialogue

Argument

Epistemic
Author <Arg1>
Other <Arg3>
Implicit <Arg0>

Evaluative
Demonstration
Discussions of normativity and practical reason often focus on reasons for adopting, or for rejecting, specific norms. This focus is useful for addressing questions about the nature and justification of norms and their division into various modal types (requirements, prohibitions, permissions, etc.). In particular, it is the right focus for raising questions about the nature and justification of ethical norms and their division into various modal and other types (ethical obligations, prohibitions, permissions, recommendations, etc.). Yet a focus on reasons for adopting specific norms, including adopting specific ethical norms, does not seem to be enough to guide action. Norms are always indeterminate; acts are always particular and so determinate. A given norm can always be satisfied by a plurality of possible acts. So it seems that there will always be a gap between norm and act, and that while practical reasoning may be able to justify specific norms, it will not by doing so show which particular acts are required. Moves from a specific norm to one or another
Relevance of DM for text analysis

Distribution of DMs in specialised (in red) and popularised (in blue) discourses
Case-study: hedging (1)

- Semantic definition: forms expressing less than full membership to a category (= gap between world and language).
- 3 semantic categories:
  - **Epistemic modality** = qualifies the truth of a proposition. Epistemic modals, epistemic/evidential adverbs and verbs: *may, might, perhaps, possibly, seem, appear, assume* …
  - **Approximators** = predicate doesn’t fully apply to referent. Adv / adj: *about, approximately, kind of, somewhat, around* …
  - **Deontic modality** = presents the prop as desirable but not (yet) true. Deontic modals: *should, must*. 
• Motivations for Hedges (Salager-Meyer 1994):
  – **Uncertainty:** w/ **Facts** (situations in the physical world) (van Dijk 1998)
    Ex: *Perhaps these are the waste gases given off by hardy bacteria*…
  – **Tentativeness:** w/ **Evaluations** = beliefs “that presuppose a value,
    and that involve a judgement about somebody or something”.
    Ex: *This is a very good result for statistics! But perhaps a bit lucky.*

• 2 views on **hedges** in **popularisation** :
  – **Fewer** hedges in pop: no need to be cautious / desire to appear in
    the know. (Fahnestock 1986, Crismore & Farnsworth 1990).
  – **As many or more** in pop, depending on hedge-types, disciplines

  ➔ Hedges not used for the same reasons in POP and SPE.
Results in corpus for hedging

- Differences in hedging *between disciplines*.
- But no quantitative difference between SPE and POP:

<table>
<thead>
<tr>
<th>HEDGES</th>
<th>SPE</th>
<th>POP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative frequency</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Epistemic Adverbs</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Modals</td>
<td>66%</td>
<td>66%</td>
</tr>
<tr>
<td>Epistemic verbs</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>Approximators</td>
<td>3%</td>
<td>6%</td>
</tr>
</tbody>
</table>

- FACT / EV: + FACTS in POP (63%) than in SPE (54%).
Discourse modes and hedging

- Relation DM-hedging: in SPE and POP, most hedges occur in ARG and INFO…

<table>
<thead>
<tr>
<th></th>
<th>SPE</th>
<th>POP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARG</td>
<td>64%</td>
<td>34%</td>
</tr>
<tr>
<td>INFO</td>
<td>22%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Distribution of hedges according to discourse modes

… but in different proportions.

- Relation DM-Fact/Ev distribution:
  
  INFO mode: 73% Fact
  ARG mode: 50% Fact - 50% Ev
DISTRIBUTION OF HEDGES

Focus on Evaluation Mode
Focus on the Argument Mode

- “Density” of hedges in ARG **POP** > ARG **SPE**: 10 hedges in ARG POP for 8 hedges in ARG SPE
- How to account for this?

<table>
<thead>
<tr>
<th>HEDGES</th>
<th>SPE</th>
<th>POP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arg 0</td>
<td>1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Arg 1</td>
<td>0.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Arg 3</td>
<td>0.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Evaluation</td>
<td>0.3%</td>
<td>1%</td>
</tr>
<tr>
<td>Demonstration</td>
<td>0.2%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Relative frequency of hedges in ARG sub-modes
Focus on Evaluation Mode

- Evaluative submode = same proportion in SPE and POP (about 10%).
- But more hedges in EV POP ➔ massive presence of deontic modals:
  - 6% of all hedges in POP are deontics (3.5% in SPE).
  - 85% of those occur in EV (29% in SPE).

Ex: One **must** not forget that Stauffenberg was in many ways the archetypal German nationalist.

Ex: Roland, it **should** be remembered, was also the patron saint of Bremen.

- Differences not in forms but in meanings of forms.
An illustration: MAY

- > in SPE (2.3‰) than in POP (1.3 ‰) but not in the same DMs:
- SPE: Rare in INF (3% of hedges in INF) but the most common hedge in ARG (15%)
  - Mainly *conjectural* with scope over *evaluations*.
  
  Ex: *It is, again, one that modern developments suggest may be of more than historical interest.*

- POP: + frequent in INF (10%) and less in ARG (7%)
  - Bears on *facts* and *root* meaning predominant.
  
  Ex: *a small dieselpowered car containing two people may return 120 passenger-miles per gallon.*

⇒ SPE: need to qualify one’s evaluations but evidential basis.
⇒ POP: actualized possibilities=> generic + uncontroversial (= INF).
Conclusion

• Popularisation can be characterised via DMs.
• There seems to be a grammar of mediation (deontics, meanings of MAY…)
• Other grammatical features currently under study confirm this (THIS, tenses…)

# Smith’s modes of discourse

<table>
<thead>
<tr>
<th><strong>Temporal Modes</strong></th>
<th><strong>Situations</strong></th>
<th><strong>Specific events and states</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Narrative</strong></td>
<td><strong>Temporal</strong></td>
<td>Dynamic, located in Time</td>
</tr>
<tr>
<td></td>
<td><strong>Progression</strong></td>
<td>Advancement in <strong>narrative time</strong></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td><strong>Situations</strong></td>
<td><strong>Specific events and states, ongoing events</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Temporal</strong></td>
<td>Static, located in Time</td>
</tr>
<tr>
<td></td>
<td><strong>Progression</strong></td>
<td><strong>Spatial advancement</strong> through scene or object</td>
</tr>
<tr>
<td><strong>Report</strong></td>
<td><strong>Situations</strong></td>
<td><strong>States, Events, General Statives</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Temporal</strong></td>
<td>Dynamic, located in Time</td>
</tr>
<tr>
<td></td>
<td><strong>Progression</strong></td>
<td>Advancement anchored to <strong>Speech Time</strong></td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td><strong>Situations</strong></td>
<td><strong>General Statives</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Temporal</strong></td>
<td>Atemporal</td>
</tr>
<tr>
<td></td>
<td><strong>Progression</strong></td>
<td><strong>Metaphorical motion</strong> through text domain</td>
</tr>
<tr>
<td><strong>Argument</strong></td>
<td><strong>Situations</strong></td>
<td><strong>Facts and propositions, General Statives</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Temporal</strong></td>
<td>Atemporal</td>
</tr>
<tr>
<td></td>
<td><strong>Progression</strong></td>
<td><strong>Metaphorical motion</strong> through text domain</td>
</tr>
</tbody>
</table>
List of hedges

EPISTEMIC AND EVIDENTIAL ADVERBS: APPARENTLY, CERTAINLY, CLEARLY, EVIDENTLY, MAYBE, NECESSARILY, OBVIOUSLY, PERHAPS, POSSIBLY, PRESUMABLY, PROBABLY, PURPORTEDLY, SEEMINGLY, SUPPOSEDLY, SURELY.

MODAL AUXILIARIES: MUST, MAY, MIGHT, CAN/CANNOT, COULD, SHALL, SHOULD, WILL, WOULD.

EVIDENTIAL VERBS: SEEM, APPEAR.

EPISTEMIC PREDICATES: ARGUE, ASSUME, BELIEVE, CLAIM, CONTEND, EXPECT, FEEL, IMAGINE, POSTULATE, PRESUME, PROPOSE, RECKON, SUGGEST, SUPPOSE, (UN)SURE, (UN)CERTAIN, SUSPECT, THINK, VIEW.

APPROXIMATORS: ABOUT, SORT OF, APPROXIMATELY, AROUND, KIND OF, ROUGH(LY), SOMEHOW, SOMewhat.
Distribution of hedges according to DMs

<table>
<thead>
<tr>
<th>FORMES</th>
<th>SPE</th>
<th>TOTAL</th>
<th>% INF</th>
<th>%ARG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total INF</td>
<td>Total ARG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ADV</td>
<td>12</td>
<td>41</td>
<td>57</td>
<td>21%</td>
</tr>
<tr>
<td>TOTAL AUX</td>
<td>104</td>
<td>267</td>
<td>437</td>
<td>24%</td>
</tr>
<tr>
<td>Total Ep. Pred.</td>
<td>22</td>
<td>109</td>
<td>151</td>
<td>15%</td>
</tr>
<tr>
<td>Total Approx.</td>
<td>6</td>
<td>10</td>
<td>21</td>
<td>29%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144</td>
<td>427</td>
<td>666</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMES</th>
<th>VULG</th>
<th>Total ARG</th>
<th>TOTAL</th>
<th>% INF</th>
<th>%ARG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total INF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ADV</td>
<td>18</td>
<td>19</td>
<td>47</td>
<td>38%</td>
<td>40%</td>
</tr>
<tr>
<td>TOTAL AUX</td>
<td>113</td>
<td>129</td>
<td>370</td>
<td>31%</td>
<td>35%</td>
</tr>
<tr>
<td>Total Ep. Pred.</td>
<td>10</td>
<td>39</td>
<td>105</td>
<td>10%</td>
<td>37%</td>
</tr>
<tr>
<td>Total Approx.</td>
<td>8</td>
<td>4</td>
<td>36</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>149</td>
<td>191</td>
<td>558</td>
<td>27%</td>
<td>34%</td>
</tr>
</tbody>
</table>

86%

61%
Distribution of DMs in SPE and POP*