What the corpus can(not) tell us about metaphor:
A corpus-assisted analysis of crisis-related lexical/grammatical metaphor in the 2008 financial press

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Acronyms (in order of appearance)

- **CMT** for Conceptual Metaphor Theory (and **CM** for conceptual metaphor)
- **SFL** for Systemic Functional Linguistics
- **GMT** for Grammatical Metaphor Theory (and **GM** for grammatical metaphor)
- **LM** for lexical metaphor
- **SkE** for Sketch Engine
- **FT** for *The Financial Times* corpus
- **S24O** for *Il Sole 24 Ore* corpus
Outline

• Introduction
  A word on the frameworks used in this study:
  **CMT** (Lakoff & Johnson 1980);
  **SFL/ GMT** (Halliday & Matthiessen 1999; 2004)

• Methodology

• Findings rundown
  What the corpus can(not) tell us about LM & GM:
  frequency, patterns of synergy and potential effects

• Final thoughts

• Metaphor in times of crisis: legitimizing austerity?
Challenging the *ornamental* view of metaphor:

“metaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system [...] is fundamentally metaphorical in nature” (Lakoff & Johnson 1980: 3)

Metaphor & cognition: tendency to map physically-grounded concepts *(source)* onto abstract concepts *(target)*

Language as major source of evidence
CMT & the corpus

Extensive body of corpus-assisted research since the inception of CMT (see, e.g., Tissari 2017)

Is automated extraction of metaphor from corpora possible? (Mason 2004; Berber-Sardinha 2010)

LMs – non-literal/ transferred use of lexical units – widely studied as markers of CMs
An approach to metaphor analysis nascent in the same years as CMT, within Hallidayan SFL:

“There is also such a thing as grammatical metaphor, where the variation is essentially in the grammatical forms, although often entailing some lexical variation as well” (Halliday 1985: 320)

As lexical units have literal meanings, similarly grammatical structures have congruent functions in the linguistic system.
GMT: nominalization

A nominal form expresses a Process/Quality meaning

⊨ with effects on the **lexico-grammatical** structure of the whole clause/clause complex

‘Thingified’ Processes/Qualities become...

→ atemporal, ‘condensed’ and depersonalized

→ and so also less open to negotiation (cf. Thompson 2014)

“A great deal of semantic information is lost when clausal expressions are replaced by nominal ones” (Halliday 1993: 78)
Nominalization: an example

- [CONGRUENT]
The taxpayers are anxious, because the government passed a new bill

- [METAPHORICAL]
The passing of a new bill caused anxiety among taxpayers

(Devrim 2015: 11)
CMT & GMT: areas of convergence
(cf. Koller & Davidson 2008; Luporini forthcoming a; Ritchie & Zhu 2015)

Metaphor as a second-order phenomenon resulting in a ‘tension’ between wordings and semantics (Taverniers 2006)

Metaphor as a fundamental strategy to expand our meaning-making potential (Halliday & Matthiessen 1999)

Metaphor implies a shift towards the concrete
(e.g., Lakoff & Johnson 1980; Kövecses 2015 on CMT; Halliday & Matthiessen 1999, 2004; Thompson 2014 on nominalization)
Methodology

- Ad hoc corpus including (1) main first page article, (2) leader from all issues of *The Financial Times* and *Il Sole 24 Ore* 2008

- Lemmatized, Part of Speech-tagged and queried using SkE (Kilgarriff et al. 2004)

- Starting point = TARGET domain: En *crisis*/ It *crisi* as node lemmas
Methodology

• Pilot survey
  – Wordlist
  – 5L-5R collocates
  – SkE Word Sketch function

• + manual analysis of sentence-length concordances
  (tot. 1356: En 357 + It 999)
### Methodology: Word Sketch

**Crisis (noun)**

<table>
<thead>
<tr>
<th>OBJECT_OF</th>
<th>logDice</th>
<th>SUBJECT_OF</th>
<th>logDice</th>
<th>MODIFIER</th>
<th>logDice</th>
<th>PP_OBJ_OF</th>
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<td>prompt</td>
<td>9.36</td>
<td>financial</td>
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<td>address</td>
<td>10.32</td>
<td>face</td>
<td>8.31</td>
<td>subprime</td>
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<td>effect</td>
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<td>be</td>
<td>6.1</td>
<td>economic</td>
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<td>scale</td>
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<td>combat</td>
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<td>Northern</td>
<td>9.19</td>
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<td></td>
<td>Rock</td>
<td>8.66</td>
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<td>[...]</td>
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**FT_First_page**

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**PP_OBJ_TO**

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<tr>
<th>logDice</th>
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<tr>
<td>response</td>
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<tr>
<td>solution</td>
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<tr>
<td>respond</td>
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**PP_OF**

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<th>logDice</th>
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<td>confidence</td>
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Findings rundown: Frequency/ LM

<table>
<thead>
<tr>
<th>Sub-corpus</th>
<th>Analysed concordances</th>
<th>Metaphorical concordances</th>
<th>%</th>
<th>Total % in corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT_First_page</td>
<td>180</td>
<td>95</td>
<td>52.8%</td>
<td>55.2%</td>
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<tr>
<td>FT_Leaders</td>
<td>177</td>
<td>102</td>
<td>57.6%</td>
<td>55.2%</td>
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<tr>
<td>S24O_Prima_pagina</td>
<td>514</td>
<td>282</td>
<td>54.9%</td>
<td>54.5%</td>
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<tr>
<td>S24O_Editoriali</td>
<td>485</td>
<td>263</td>
<td>54.2%</td>
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</table>

Percentage of metaphorical concordances (LM) in the two corpora
## Findings rundown: Frequency/ GM

<table>
<thead>
<tr>
<th>Sub-corpus</th>
<th>Analysed concordances</th>
<th>Metaphorical concordances</th>
<th>%</th>
<th>Total % in corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT_First_page</td>
<td>180</td>
<td>94</td>
<td>52.2%</td>
<td>51 %</td>
</tr>
<tr>
<td>FT_Leaders</td>
<td>177</td>
<td>88</td>
<td>49.7 %</td>
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</tr>
<tr>
<td>S24O_Prima_pagina</td>
<td>514</td>
<td>204</td>
<td>39.7 %</td>
<td>40.5 %</td>
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<tr>
<td>S24O_Editoriali</td>
<td>485</td>
<td>201</td>
<td>41.4 %</td>
<td></td>
</tr>
</tbody>
</table>

Percentage of metaphorical concordances (GM) in the two corpora
Findings rundown: main SOURCE domains

**FT_First_page**

- THE CRISIS IS A PHYSICAL ENTITY (28%)
- THE CRISIS IS WAR (23.7%)
- THE CRISIS IS A CONTAINER (15.2%)

**S24O_First_page**

- THE CRISIS IS A PHYSICAL ENTITY (29.1%)
- THE CRISIS IS A CONTAINER (15.1%)
- THE CRISIS IS WAR/ A NATURAL FORCE or DISASTER/ A HEALTH PROBLEM (all 14% circa)
Findings rundown: main SOURCE domains

FT_Leaders

• THE CRISIS IS A PHYSICAL ENTITY (28%)
• THE CRISIS IS A CONTAINER (21.2%)
• THE CRISIS IS A HEALTH PROBLEM (17%)

S24O_Editoriali

• THE CRISIS IS A PHYSICAL ENTITY (29.6%)
• THE CRISIS IS A CONTAINER (17.2%)
• THE CRISIS IS WAR/A HEALTH PROBLEM (both 14% circa)
Examples

• The crisis *has spread* to prime mortgage assets in the US and *engulfed* Bear Sterns (FT_FP, March 22)

CRISIS AS ANIMATE PHYSICAL ENTITY

• Il distretto delle ceramiche [...] *è entrato in crisi* [The ceramics district [...] has entered a crisis period] (S24O_PP, Dec 10)

CRISIS AS CONTAINER

• the latest dramatic intervention by the US government to *combat* the financial crisis (FT_FP, Sept 17)

CRISIS AS WAR

• le grandi banche [...] *epicentro* della crisi [the big banks [...] the epicentre of the crisis] (S24O_PP, June 29)

CRISIS AS NATURAL FORCE/ DISASTER
Findings rundown: compelling synergies between LM and nominalization

- Patterns emerging from the combination of corpus and ‘armchair’ linguistics (Fillmore 1992: 35)
- Consequent in-depth analysis carried out on first page sub-corpora (leaders on the agenda)
Findings rundown: compelling synergies between LM and nominalization

<table>
<thead>
<tr>
<th>Sub-corpus</th>
<th>Analysed concordances</th>
<th>Bi-metaphorical concordances</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>FT_First_page</td>
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<td>73.7 %</td>
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<td>S24O_Prima_pagina</td>
<td>282</td>
<td>153</td>
<td>54.3 %</td>
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*Bi-metaphorical* concordances in the first page sub-corpora

<table>
<thead>
<tr>
<th>Sub-corpus</th>
<th>Bi-metaphorical concordances</th>
<th>Concordances showing synergy</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>FT_First_page</td>
<td>70</td>
<td>54</td>
<td>77.1 %</td>
</tr>
<tr>
<td>S24O_Prima_pagina</td>
<td>153</td>
<td>111</td>
<td>72.5 %</td>
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</tbody>
</table>

*Bi-metaphorical* concordances showing LM/ nominalization *synergy*
Synergies between LM/ CM and nominalization

Nominalized element contributes to coherent/ effective linguistic realization of underlying CM through abstract $\rightarrow$ concrete shift

(1) we are *in the depths* of the world’s credit crisis (FT, Feb 29)

THE CRISIS IS A CONTAINER + nominalized Quality construed as spatial location; focus on additional property of INESCAPABILITY
Synergies between CM and nominalization

(2) *Si proietterà* quindi sul prossimo anno [...] *la durezza* dell’attuale *crisi* finanziaria
[The hardness/ hardship of the current financial crisis will project itself onto the next year] (S24O, Dec 17)

**THE CRISIS IS A PHYSICAL ENTITY** activated by nominalized Quality, which in turn becomes Actor of material Process *proiettarsi* (LM); nominalization also adds a ‘perceptible’ component of HARM/ SEVERITY
Synergies between CM and nominalization

Nominalized technical terms as ‘breeding ground’ for CM

(3) After escaping being badly *hit* by the *fallout* from the US subprime mortgage *crisis*, the large eurozone economies have been slowed down *(FT, Aug 15)*

*Fallout* = ‘dead’ nominalization (Actor) triggering THE CRISIS IS A NATURAL (NUCLEAR) DISASTER; multiple-layered metaphorical scenario
Synergies between CM and nominalization

LM/ nominalization: strategies to condense information

(4) I timori per l’impatto della crisi finanziaria sull’economia pesano [...] sulle borse
[Fears for the impact of the financial crisis on the economy are weighing [...] on the stock exchange]
(S24O, Oct 3)

Nominalisations and CM-evoking LMs compress highly structured information (cf. Ritchie & Zhu 2015), while also giving a more ‘vivid’ account of the events
Final thoughts

- Quantitative analysis: crisis construed in (highly pessimistic) metaphorical terms, already in 2008

  CM & GM as potential register-idiosyncratic features (Miller & Johnson 2014) of the language of financial journalism

  Default ways of conceptualizing/ representing the crisis? (Though not the only possible way: see percentage of non-metaphorical concordances in slides 13-14 above)

- Qualitative analysis: *lexico-grammatical metaphor* functions to portray the crisis as something ‘tangible’

  Amplifying its disruptive potential

  Increasing apprehension toward it
Metaphor in times of crisis: legitimizing austerity? (Luporini forthcoming b)

- CMs highlight presence of crisis in society, its violence and aggressiveness (PHYSICAL ENTITY, WAR, HEALTH, NATURAL DISASTER)
- tend to efface human responsibility/ involvement (CONTAINER, HEALTH, NATURAL DISASTER)

- Nominalizations work synergistically with CMs to objectify Processes and Qualities related to the crisis, making them atemporal, impersonal and non-negotiable
- encapsulate complex meanings, treating them as a given
Thank you!

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Luporini, A. (forthcoming a) “‘In the depths of the world’s credit crisis’: Compelling synergies between conceptual and grammatical metaphor in a corpus-assisted study of the British and Italian financial press”, in A. Baicchi & A. Bagasheva (eds), Figurative Language We Live By: The cognitive underpinnings and mechanisms of figurativity in language. Textus 1 (2017).


