Do political metaphors really matter? Two experiments assessing the political impact of metaphors on citizens' opinions towards Belgian federalism

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Introduction

• Interdisciplinary project
  – Linguistics & political science
  – Metaphors in political discourse
    – Context: Belgian federalism
  – Use of metaphors
    – Different kinds of political corpora
  – Production and reception
    – Political impact of metaphors

Belgian federalism?
Du. "Normale partijen die een staatsverspring willen ondernemen die willen eigenlijk hervorming als een soort zeggen een vriendje (lat relatief in dit geval)." (PBF, B8, 3130-3131)

Fr. On a coupé le citoyen du fonctionnement. C'est comme dans un ménage, on ne règle jamais les solutions une fois pour toutes. On ne sait, ou est ce simplement une technique. 20 ans, puis on a des enfants, puis les enfants, peu importe, on doit continuer, on sait que tout va mal et puis on est, et puis entre, famille, ménage est monopolisé en même temps. Puis elle a perdu son job, puis les enfants se marient, voilà que la situation est trop grande... les situations évoluent et je ne pense pas que les règles d'ordre constitutionnelles. (PBF, B8, 1660-1661)

Fr. "Het is onvermoeiend dat hervorming de Belgische staat is een gereglementeerd en samengesteld huwelijk geweest." (2264-2266)

Fr. "Heeft het verband met een gereglementeerd huwelijk dat in het rechtsregime door de oude staatsarchitectuur" (2268-2269)

Fr. "Een gereglementeerd huwelijk kan niet zonder dekeken, en mede, is dat alom in het. Het moet gewoon verder worden door de internationale gemeenschap." (2270-2271)

Fr. "En maar dat is gereglementeerd gute en goede dagen en we die in kwade dagen." (2281-2287)

Fr. "Maar bij een gereglementeerd huwelijk is het niet de goede en kwade dagen vrijwillig, maar bij de oude staatsarchitectuur... (..) Ik hoop toch dat we zo ver zijn dat huwelijken niet meer mogelijk zijn." (2283-2287)
Research question

- What political impact(s) could this metaphor have on the people to which it is addressed.
- Crucial question in CL
  - CMT (Lakoff & Johnson 1980)
  - Metaphors have the ability of highlighting and hiding specific aspects of a target concept
- Framing
  - "[...] select[ing] some aspects of a perceived reality and mak[ing] it more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the described item" (Entman, 1993: 52)
  - "Metaphor helps construct particular aspects of reality and reproduce (or subvert) dominant schemas (Koller 2009: 121)

Do metaphors influence reasoning?

Thibodeau & Boroditsky 2011, 2013

CRIME

MORE SOCIAL INTEGRATION

MORE REPRESSION

Thibodeau & Boroditsky 2011, 2013

CRIME

MORE SOCIAL INTEGRATION

MORE REPRESSION

« even minimal metaphors can significantly shift people’s representations and reasoning about important real-life domains »
Do metaphors influence reasoning?

– Thibodeau & Boroditsky 2011, 2013
  • Crime = virus => more social integration
  • Crime = beast => more repression
  • Reading about crime increases people’s overall preference for enforcement, regardless of the metaphorical frame
  • => Under which circumstances do metaphors influence reasoning?

XP design

• Central questions
  – Does the Tetris metaphor have an impact on the representations of Belgian federalism by the citizens?
  – Do these representations lead to different opinions about regional autonomy?

Tetris Metaphor

• 2 experiments (Online, limeSurvey protocol)
  – Experiment 1 (2013)
    • Linguistic analysis
    • Political scientific analysis
  – Experiment 2 (2014)
    • Linguistic analysis
    • Political scientific analysis

Experiment 1
From 1831 to 1970, Belgium came down to the central state, the provinces and the municipalities. Except for the prerogatives devolved to the local authorities, the State took care of everything. In 1970, the constituent power created new institutions: communities and regions. And every state reform has been the occasion to take competences from the state (from there on called the federal state) to redistribute them to federal authorities. This is the big Belgian Tetris, where we see the upper floor that is falling apart (decomposing), block by block, at the benefit of other authorities. In certain cases, the legislator is transferring homogeneous blocks (like education, handed over to the communities in 1989). In other cases, what is involved is just transferring some elements of a competence (it’s the case of tax system: the federal state remains competent but assigned certain prerogatives to the federal entities). From now on, we therefore make a distinction between three types of competences. The ones that are exclusively exercised by the federal state (like Defense, for example). The ones that are exclusively exercised by the Regions and Communities (Education, Town planning, Public works, and so on). An the ones for which each power has some possibility of intervention. In the area of employment, for instance, the (federal) State is competent for certain domains (unemployment legislation, for instance) and the Regions are in charge of other ones (training courses of unemployed people).
Hypotheses

H1. In the absence of metaphor, identitarian accounts would prevail in the participants’ representations of Belgian federalism

H2A. In the absence of metaphor, participants are more unitarist

H2B. When exposed to the metaphor, participants are more regionalist.

XP design

- Central questions
  - Does the Tetris metaphor have an impact on the representations of Belgian federalism by the citizens?
  - If it does, what type of impact?
- Independent variables
  - 4 xp conditions (various degrees of exposure to input material)
    - Pre-test – post-test
- Dependent variables
  - Representation of Belgian federalism
    - Description task
    - Image association
    - Attitude towards Belgian federalism
    - Statements on a Likert-scale
Participants

- 1st y. French-speaking bachelor students
- Modern Languages + social and political sciences
- Pre-test: N = 493

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Control condition</td>
<td>126</td>
<td>25.6</td>
<td>82</td>
<td>27.4</td>
</tr>
<tr>
<td>Full condition</td>
<td>125</td>
<td>25.4</td>
<td>79</td>
<td>26.4</td>
</tr>
<tr>
<td>Image condition</td>
<td>114</td>
<td>23.1</td>
<td>66</td>
<td>21.7</td>
</tr>
<tr>
<td>Test condition</td>
<td>126</td>
<td>26.0</td>
<td>73</td>
<td>24.4</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.0</td>
<td>300</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Participants

<table>
<thead>
<tr>
<th></th>
<th>PK</th>
<th>FI</th>
<th>Gender</th>
<th>Belgium</th>
<th>Wallonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>131</td>
<td>25.8</td>
<td>2.85</td>
<td>49.2</td>
<td>6.15</td>
</tr>
<tr>
<td>Full</td>
<td>131</td>
<td>25.8</td>
<td>2.88</td>
<td>47.7</td>
<td>8.61</td>
</tr>
<tr>
<td>Pre-test</td>
<td>120</td>
<td>25.6</td>
<td>2.90</td>
<td>41.8</td>
<td>8.74</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100.0</td>
<td>2.87</td>
<td>45.9</td>
<td>8.50</td>
</tr>
</tbody>
</table>

XP1 - Results

- Analysis of the description task
  - Thematic domains

Table 1. Participants’ profile across the experimental conditions

Key: PK = political knowledge; FI = political interest

Table 2. Coding scheme for the free description task about representation of Belgium

<table>
<thead>
<tr>
<th>Thematic domains</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>No text duplication</td>
</tr>
<tr>
<td>History</td>
<td>Reference to the 1972 merger and only process of federalism in the 1970s</td>
</tr>
<tr>
<td>Parties</td>
<td>Federal but not bilingual, unity, constitutional, suburban, community region, province/communes</td>
</tr>
<tr>
<td>Identity</td>
<td>Belgium, Flemish, Walloon, Brussels, Wallonie/Belgium and Flanders and all their related adjectives</td>
</tr>
<tr>
<td>Language</td>
<td>Dutch-speaking, French-speaking and German-speaking</td>
</tr>
<tr>
<td>Organization (balance of power)</td>
<td>Distribution of competences, powers, autonomy, constitutional status, representational nature and the number of specific competences mentioned in the response</td>
</tr>
<tr>
<td>Dynamics</td>
<td>Federalism perceived positively, federation perceived negatively, acquisitions, competency, conflict, linguistic/natural status, community status and territorial status</td>
</tr>
</tbody>
</table>
Hypotheses

H1. In the absence of metaphor, identitarian accounts would prevail in the participants’ representations of Belgian federalism

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**XP1 - Results**

### Table 4. Percentage of the six thematic dimensions of participants’ representations of Belgian federalism

<table>
<thead>
<tr>
<th>Chi-square tests (Control group)</th>
<th>(Picture / Test)</th>
<th>(Picture only)</th>
<th>(Picture / Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>38.5%</td>
<td>40.6%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Institutional</td>
<td>56.1%</td>
<td>41.3%</td>
<td>65.5%</td>
</tr>
<tr>
<td>Identity</td>
<td>53.1%</td>
<td>31.1%</td>
<td>25.3%</td>
</tr>
<tr>
<td>Linguistic</td>
<td>7.2%</td>
<td>3.2%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Organization</td>
<td>61.0%</td>
<td>45.8%</td>
<td>66.8%</td>
</tr>
<tr>
<td>Dynamic</td>
<td>97.0%</td>
<td>99.9%</td>
<td>98.7%</td>
</tr>
</tbody>
</table>

Sig. codes: ****p<.000

**XP1 - Results**

- **Attitude towards regional autonomy?**

  "To what extent do you think that federal entities should care for everything?"

  1  2  3  4  5  6  7  8  9  10

  "To what extent do you think that the federal government should care for everything?"
**Hypotheses**

H2A. In the absence of metaphor, participants are more unitarist

H2B. When exposed to the metaphor, participants are more regionalist.

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**XP1 - Results**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>B (unstandardised)</th>
<th>SE</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2A</td>
<td>0.12</td>
<td>0.08</td>
<td>1.5</td>
<td>0.13</td>
</tr>
<tr>
<td>H2B</td>
<td>-0.02</td>
<td>0.01</td>
<td>-2.5</td>
<td>0.01</td>
</tr>
<tr>
<td>Political knowledge</td>
<td>0.13</td>
<td>0.08</td>
<td>1.6</td>
<td>0.11</td>
</tr>
</tbody>
</table>

- N=100 observations
- F-statistic: 3.044 on 1 and 99 DF (****)
- R^2 = 0.02, Adjusted R^2 = 0.01

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**XP1 – Main findings**

- Subject who have been submitted to the textual stimulus tend to:
  - Highlight **different aspects** of Belgian federalism in their descriptions
    - System vs. identity
  - Express different preferences vis-à-vis regional autonomy
  - Important **interaction** between political knowledge, text condition and political preferences
    - Low level of political knowledge = greater inclination towards more regional autonomy
XP1 – Main findings

• BUT
  • Effect of the text ≪ effect of the metaphor
    – However, reading the text appears to have an impact on the representations of the participants, which might suggest an indirect impact of the metaphor.
    – Our design does not allow us to determine the specific role of the Tetris metaphor

Experiment 2

• 2 versions of the experimental text
  – Original version with the Tetris metaphor
  – Neutral version without the Tetris metaphor

The Belgian tetris

From 1831 to 1970, Belgium came down to the central state, the provinces and the municipalities. Except for the prerogatives devolved to the local authorities, the State took care of everything. In 1970, the constituent power created new institutions: communities and regions. And every state reform has been the occasion to take competences from the state (from there on called the federal state) to redistribute them to federal authorities. This is the big Belgian Tetris, where we see the upper floor that is falling apart (decomposing), block by block, at the benefit of other authorities. In certain cases, the legislator is transferring homogeneous blocks [like education, handed over to the communities in 1989]. In other cases, what is involved is just transferring some elements of a competence (it’s the case of the tax system: the federal state remains competent but assigned certain prerogatives to the federal entities). From now on, we therefore make a distinction between three types of competences. The ones that are exclusively exercised by the federal state (like Defense, for example). The ones that are exclusively exercised by the Regions and Communities (Education, Town planning, Public works, and so on). An the ones for which each power has some possibility of intervention. In the area of employment, for instance, the (federal) State is competent for certain domains (unemployment legislation, for instance) and the Regions are in charge of other ones (training courses of unemployed people).

The Belgian tetris federalism

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Participants

- 1st y. French-speaking bachelor students
- Modern Languages + social and political sciences
- N = 340

<table>
<thead>
<tr>
<th>Participants / ap condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Control condition</td>
<td>110</td>
</tr>
<tr>
<td>Neutral condition</td>
<td>114</td>
</tr>
<tr>
<td>Tetris condition</td>
<td>116</td>
</tr>
<tr>
<td>Total</td>
<td>340</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>Par@cipants</th>
<th>xp condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>116</td>
<td>Tetris</td>
<td></td>
</tr>
<tr>
<td>340</td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

XP2 - Hypotheses

H1. In the absence of metaphor, identitarian accounts would prevail in the participants’ representations of Belgian federalism
H2A. In the absence of metaphor, participants are more unitarist
H2B. When exposed to the metaphor, participants are more regionalist.
XP2 - Results

• Analysis of the description task
  – Thematic domains

XP2 - Results

<table>
<thead>
<tr>
<th>Descriptive task</th>
<th>Control group</th>
<th>Neutral text</th>
<th>Tetris metaphor</th>
<th>Chi-square tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>10.9%</td>
<td>31.9%</td>
<td>30.8%</td>
<td>(14.903, df-2)**</td>
</tr>
<tr>
<td>Institutional</td>
<td>82.7%</td>
<td>90.4%</td>
<td>93.4%</td>
<td>(6.526, df-2)**</td>
</tr>
<tr>
<td>Identity</td>
<td>83.1%</td>
<td>40.4%</td>
<td>44.0%</td>
<td>(15.199, df-2)**</td>
</tr>
<tr>
<td>Linguistic</td>
<td>80.0%</td>
<td>3.3%</td>
<td>0.9%</td>
<td>(20.348, df-2)**</td>
</tr>
<tr>
<td>Organizational</td>
<td>54.3%</td>
<td>81.7%</td>
<td>89.7%</td>
<td>(40.11, df-2)**</td>
</tr>
<tr>
<td>Dynamic</td>
<td>8.3%</td>
<td>3.5%</td>
<td>4.3%</td>
<td>(2.7781, df-2)</td>
</tr>
</tbody>
</table>

Hypotheses

H1. In the absence of metaphor, identitarian accounts would prevail in the participants’ representations of Belgian federalism

// XP1

No differences between the neutral condition and the Tetris condition
XP2 - Results

- Attitude towards regional autonomy?

\[
\begin{array}{rr}
& \text{Control} & \text{Tetris} \\
\text{Neutral} & 6.23 & 6.23 \\
\end{array}
\]

Hypotheses

H2A. In the absence of metaphor, participants are more unitarist
H2B. When exposed to the metaphor, participants are more regionalist.

\[N5 - F(2,204) = 5.524, p = .093\]

No differences between the neutral condition and the Tetris condition.
XP2 – Main findings

• Subject who have been submitted to the textual stimulus tend to:
  – Highlight different aspects of Belgian federalism
    • System vs. identity
    – // XP1

• Neutral vs. tetris conditions
  • Main effect: tetris metaphor does not lead the participants to have different political preferences regarding regional autonomy
  • Significant interaction with political knowledge

Discussion

• Framing?
  • Under what conditions can a given metaphor influence the perception of political issues?
    – Raising questions about when metaphors do and do not influence reasoning (Steen et al 2014)
  • Important role of political knowledge on the possible effects of framing
  • Other parameters of metaphorical mappings
    – Aptness?
      • the degree to which a metaphor vehicle captures important features of a metaphor topic — (Thibodeau & Longin 2011: 208)
    – Extendness?
    – Support for a given metaphor?
    – Frequency?
    – How often have been exposed to a given metaphor?
    – Deliberateness?
      • Has a metaphor been produced intentionally to achieve a particular goal in communication?
Further work

- Replicate experiment 2
  - Representative sample of citizens
  - Aptness
    - Extension to other metaphorical domains
  - Deliberateness
- Design a new experiment
  - Socio-economic issues
  - Universal basic income
  - Under analysis
References