The Linguistic Complexity
of Climate Change Narratives

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A linguistic perspective on policy narratives

- How does a CC policy narrative manifest itself linguistically in different text genres?

- Comparing examples from
  - a South African Government text on CC
  - a Norwegian survey on CC (the Norwegian Citizen Panel).

- Narrative analysis based on J.-M. Adam (2008)
  - A *plot* with i) Initial situation, ii) Complication, iii) (Re-) action(s), iv) Resolution, v) Final situation;
  - Actors in roles of hero(es), villain(s), victim(s).

- The approach is also inspired by the Narrative Policy Framework (NPF) (Jones et al. 2014, Jones 2014)

Climate change narratives

(1)   i) INITIAL SITUATION: Emissions increased dramtically since the industrial revolution.

ii) COMPLICATION: CC has caused massive problems in different parts of the world.

iii) REACTION: The UN have organised summits to discuss action on CC (the COPs).

iv) RESOLUTION: But the international community has not reached any binding agreement.

v) FINAL SITUATION: CC constitutes a serious threat to the planet, and those who have contributed the least to the problems are also the most vulnerable to its consequences.

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South Africa's National Climate Change Response WP

- The WP was published just before COP 17 in Durban, South Africa in 2011.

- The structure and content of the WP are characterised by the complexity of the problem:
  - multiple sectors (water, agriculture, biodiversity, health and inhabited areas);
  - financing and human resources;
  - the difference between mitigation and adaptation;
  - regulations and control mechanisms.

The narrative of the South African WP

- The primary story is constructed around a threat and the response to this threat:

(2)   South Africa will have to adapt to these impacts [of climate change] by managing its climate and weather-related risks, reducing its vulnerability and increasing the resilience of our society and economy to the adverse effects of climate change and variability; (p. 10)

- The objective is to arrive at a resolution:

(3)   [a] transition to a climate-resilient and lower-carbon economy and society. (p. 5 and 7)

- There are two main sub-narratives, on adaptation and mitigation respectively.

- Poverty plays very different roles in the adaptation and mitigation narratives.

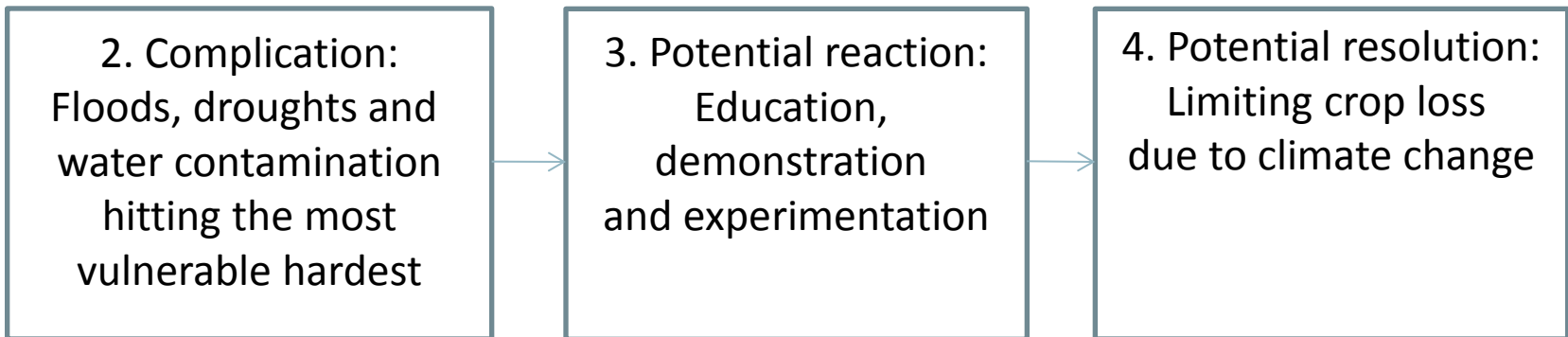- First, the adaptation narrative:

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(4) Rural communities with the highest dependence on natural water sources are in KwaZulu-Natal, the Eastern Cape and Limpopo. The former two will probably experience more flooding and water contamination. In addition to these, Limpopo will probably experience more droughts. These are areas with some of the poorest communities and under-resourced municipalities with limited capacity and skills to adapt to changing conditions.

(…)

In response to these challenges, South Africa will:

5.7.1 Educate subsistence and small-scale farmers on the potential risks of climate change, and support them to develop adaptation strategies with on-farm demonstration and experimentation. Adaptation strategies will include conservation agriculture practices including water harvesting and crop rotation, and will prioritise indigenous knowledge and local adaptive responses. (p. 22)
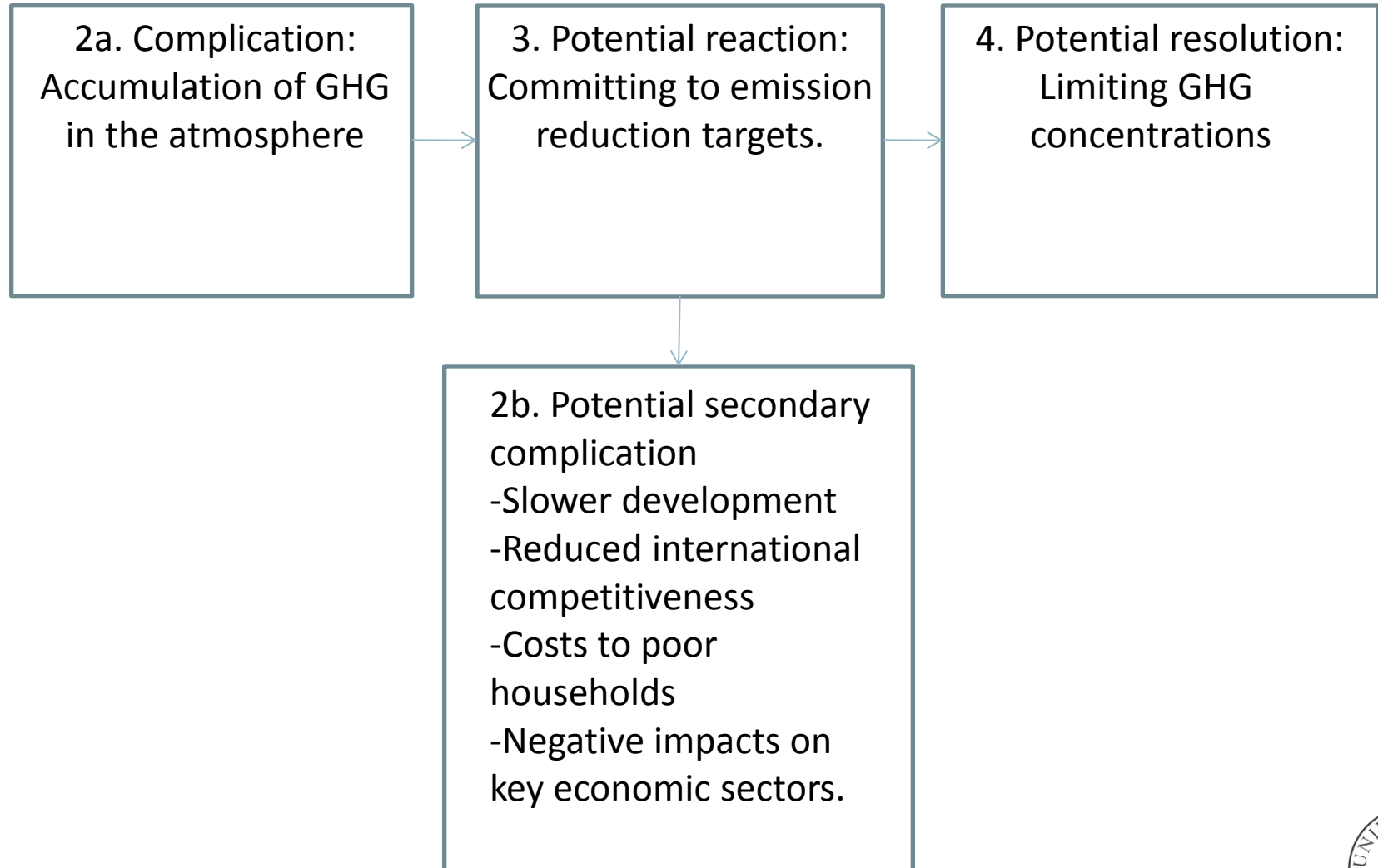
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- The structure of the adaptation narrative:

| 2. Complication: Floods, droughts and water contamination hitting the most vulnerable hardest | → | 3. Potential reaction: Education, demonstration and experimentation | → | 4. Potential resolution: Limiting crop loss due to climate change |

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The mitigation narrative:

(5)　This policy identifies or sets up processes to identify the optimal combination of actions sufficient to meet the National Climate Change Response Objective. Factors to be considered include not only the mitigation potential, the incremental and direct cost of measures, but also the broader impact on socio-economic development indicators (such as employment and income distribution), our international competitiveness, the cost to poor households and any negative consequences for key economic sectors. (p. 27)

- The structure of the mitigation narrative:

| 2a. Complication: Accumulation of GHG in the atmosphere | 3. Potential reaction: Committing to emission reduction targets. | 4. Potential resolution: Limiting GHG concentrations |

2b. Potential secondary complication
-Slower development
-Reduced international competitiveness
-Costs to poor households
-Negative impacts on key economic sectors.
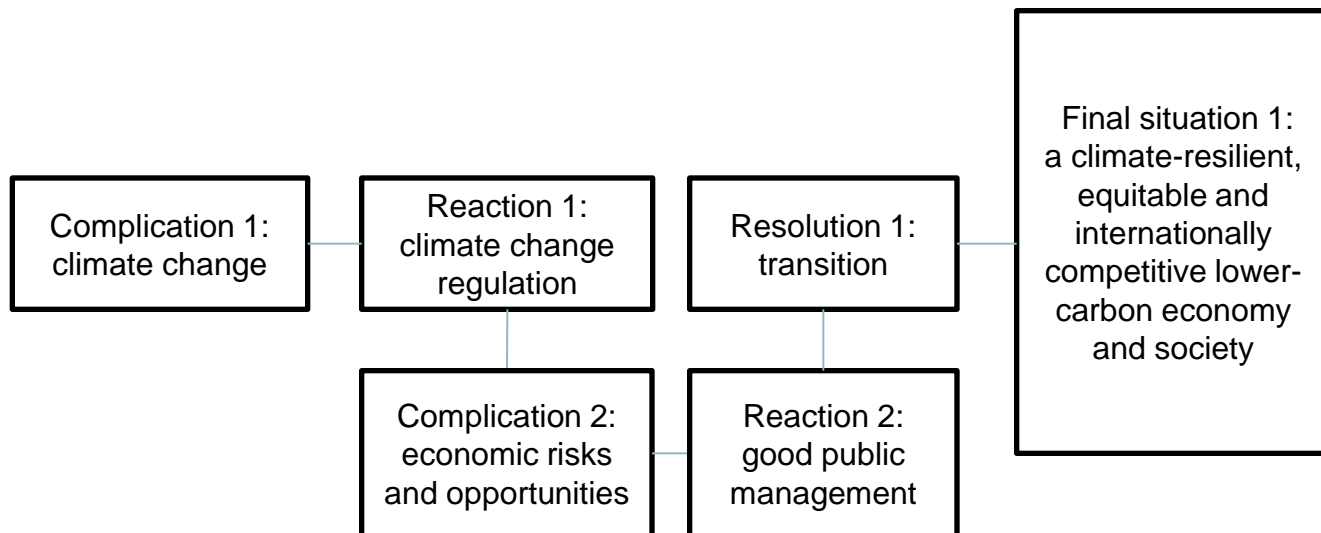
- The governement is the hero of its own story:

(6) Against this national context, the South African Government: […] Having ratified both the United Nations Framework Convention on climate change (UNFCCC) and its Kyoto Protocol, **will continue to meaningfully engage in the current multilateral negotiations** to further strengthen and enhance the international response to the climate change crisis. The Government specifically aims to continue its efforts to strengthen and ensure the full implementation of the UNFCCC and its Kyoto Protocol through additional multi-lateral rules-based and legally-binding international agreements that will come into force after 2012. The Government specifically aims to **continue its efforts to strengthen and ensure the full implementation of the UNFCCC and its Kyoto Protocol** through additional multi-lateral rules-based and legally-binding international agreements that will come into force after 2012. (p. 9)

- Imposition of agreement through presuppositions in (10):
  - 'The government is currently engaged in current multilateral negociations'.
  - 'The Government are making efforts to strengthen and ensure the full implementation of the UNFCCC and its Kyoto Protocol'.

- This content is attributed to a collective voice which comprises both the authors and the readers.

Narratives at the micro-level of sentences

(7) At the national level, the challenge will be to effectively manage and reduce the economic risks [emerging from the impacts of climate change regulation], and build on and optimise the potential opportunities, and to ensure a smooth and just transition to a climate-resilient, equitable and internationally competitive lower-carbon economy and society.

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- A given stage of the narrative can be realised through single sentences, or even smaller, syntactic elements.

- The narrative of example (7):

- Let's have a closer look at the first part of example (7):

(7) At the national level, the challenge will be to effectively manage and reduce the economic risks [emerging from the impacts of climate change regulation].

(*reaction no.2*) At the national level, the challenge will be to effectively manage and reduce the economic risks [emerging from the impacts of climate change regulation]

(*complication no.2*) At the national level, the challenge will be to effectively manage and reduce **the economic risks [emerging from the impacts of climate change regulation**]

(*reaction no. 1*) At the national level, the challenge will be to effectively manage and reduce the economic risks [emerging from the impacts of **climate change regulation**]

(*complication no. 1*) At the national level, the challenge will be to effectively manage and reduce the economic risks [emerging from the impacts of **climate change** regulation]
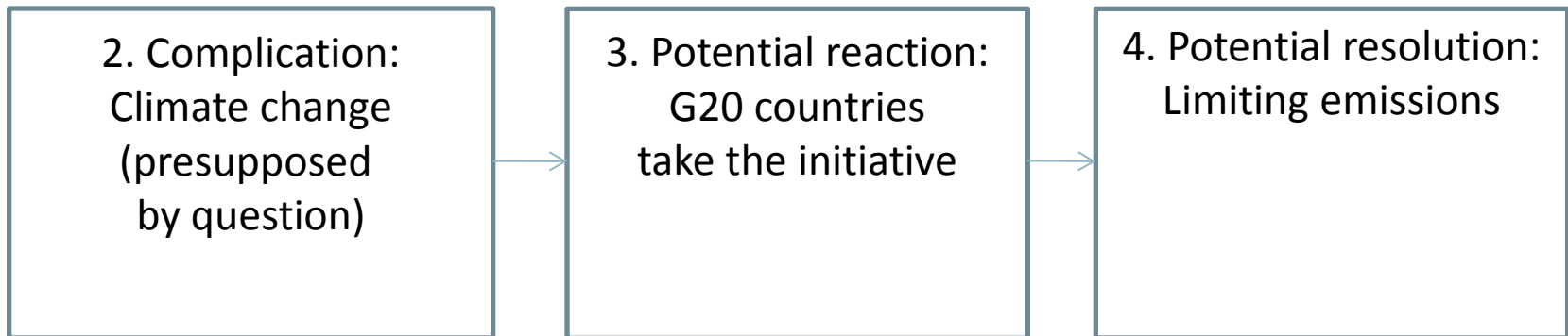
Survey Discourse

- During the latest round of the Norwegian Citizen Panel, LINGCLIM asked respondents the following question:

    (8) Regarding climate change, what do you think should be done?

- Most answers were brief:

    (9) Higher taxes on climate emissions. Priority for climate friendly transportation.

- A small number challenged the complication presupposed in the question:

    (10) Nothing!!!

    (11) Climate Change is related to cycles. The world changes, without us being able to do much about it.

- Some answers were more elaborate:

   (12) It's industry that influences the climate to the greatest extent, not private individuals. Industrialized countries must take the initiative! To impose taxes on developing countries as much as industrialized countries is not a fair solution in the fight against the high CO_2 emissions. Developing countries do not have the opportunity to buy CO_2 quotas from other countries, like Norway and other hypocritical countries do. The G20 countries must come together to limit CO_2 emissions. It doesn't help if the West cuts when Asia doesn't participate. If we want to prevent economic stagnation in today's developing countries, then the West cannot demand the same cuts in CO_2! After all, there is a need for highly developed technology, which is something developing countries don't have, to limit high emissions. […]

- The simple syntactic structure of the sentences tends to foreground the stages of the narrative:

2. Complication: Climate change (presupposed by question)	→	3. Potential reaction: G20 countries take the initiative	→	4. Potential resolution: Limiting emissions

- However, there is complexity in the form of **a dialogue with competing narratives**:

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(12) It's industry that **influences the climate to the greatest extent**, not **private individuals**. Industrialized countries must take the initiative! To impose taxes on developing countries as much as industrialized countries is not a fair solution in the fight against the high CO_2 emissions. Developing countries do not have the opportunity to buy CO_2 quotas from other countries, like Norway and other hypocritical countries do. The G20 countries must come together to limit CO_2 emissions. It doesn't help if the West cuts when Asia doesn't participate. If we want to prevent economic stagnation in today's developing countries, then the West cannot demand the same cuts in CO_2! After all, there is a need for highly developed technology, which is something developing countries don't have, to limit high emissions. […]

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Different CC narrative structures in different genres

- Government texts (e.g. green and white papers) tend to incorporate several stages in a single sentence.

- Some stages are foregrounded, while others are backgrounded, for example:

  (7) At the national level, the challenge will be to effectively manage and reduce **the economic risks [emerging from the impacts of climate change regulation]** (backgrounded complication)

- Our survey answers are syntactically simpler but tend to dialogue with alternative narratives:

  (12) **To impose taxes on developing countries as much as industrialized countries is** not **a fair solution in the fight against the high CO2 emissions**.

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Summing up: Why the narrative perspective?

- It can serve as the basis for cross-disciplinary research (linguistics, psychology, political science, climate science)

- It helps the understanding of a complex document, through identifying/interpreting relations between different components.

- The analysis of narratives within sentences shows how the speaker/author can construct the story by backgrounding and foregrounding different stages according to rhetorical needs:
  – The Government specifically aims to **continue** its efforts to strengthen and ensure the full implementation of the UNFCCC and its Kyoto Protocol.

- Linguistics can contribute to the precision of texts which are constructed for narrative experiments.

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