

Canadian Hansard and Arctic Sovereignty: A Narrative Policy Framework Study

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APPENDIX A

TABLE A1. List of words used in thematic dictionary.

Environment and climate	Military and security	Indigenous People	Economy and resources
1. air	1. admiral*	1. abitibiwinnik	1. development
2. animal*	2. aggressi*	2. aboriginal	2. econom*
3. biodiversity	3. aircraft*	3. akeeagok	3. employ*
4. carbon	4. airfield*	4. algonquin	4. energ*
5. change	5. alert	5. anishinabe	5. fuel*
6. changes	6. allies	6. atikamekw	6. fossil
7. climate	7. armament*	7. carmacks	7. gas
8. coast*	8. armed	8. colonial	8. industr*
9. conservation	9. arsenal	9. communities	9. infrastructure
10. ecolog*	10. ballistic	10. cree	10. invest*
11. ecosystem*	11. bases	11. dogrib	11. job*
12. endangered	12. battle*	12. gwich'in	12. mineral*
13. environment*	13. belligeren*	13. gwitchin	13. offshore*
14. fauna	14. border*	14. indigenous	14. oil
15. fish	15. china	15. innu	15. petroleum
16. fishery	16. chinese	16. inuit	16. producer*
17. fishes	17. coast	17. inuinnaqtun	17. resource*
18. fishing	18. combat	18. inuk	18. seabed
19. footprint*	19. conflict*	19. inuktutit	19. shelf
20. ghg	20. continental	20. invik	20. shipping
21. greenhouse	21. crime*	21. itk	21. spending
22. ice	22. defence	22. lyackson	22. supplies
23. lake	23. destabiliz*	23. listuguj	23. tanker*
24. lakes	24. drone*	24. katzie	24. trade
25. marine	25. equipment*	25. kinanaskomtinawaw	25. work
26. melting	26. extraterritorial	26. kwantlen	
27. nature	27. fleet	27. manawan	
28. ocean*	28. forces	28. matsqui	
29. sea	29. guard	29. métis	
30. seas	30. hypersonic	30. mi'kmaq	
31. species	31. icebreaker*	31. nations	
32. temperature*	32. incursion*	32. nanisivik	
33. traffic	33. intelligence	33. nasittuq	
34. transition	34. international	34. northerner*	
35. water	35. invasion	35. nunavummiut	
36. waters	36. jett*	36. nunavut	
37. waterway	37. kremlin	37. nunavik	
38. whale*	38. labrov	38. okanagan	
39. wildlife*	39. marine	39. packchi-wanis	

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TABLE A1. List of words used in thematic dictionary – *continued*:

Environment and climate	Military and security	Indigenous People	Economy and resources
	39. marine 40. militar* 41. missile* 42. nato 43. naval 44. navy 45. norad 46. northwest 47. nuclear 48. officer* 49. passage 50. patrol* 51. peace 52. peacekeeping 53. plane* 54. port* 55. presence 56. protect* 57. putin 58. radar* 59. ranger* 60. remilitarization 61. rescue 62. reserve 63. resolute 64. russia* 65. safe 66. safety 67. satellite* 68. secure 69. security 70. ship 71. shipbuilding 72. ships 73. shore* 74. soldier* 75. stability 76. strateg* 77. submarine* 78. surveillance 79. tactic* 80. target* 81. threat* 82. torpedo* 83. troop* 84. ukraine 85. vessels 86. war 87. warfare 88. warhead 89. warheads 90. warning 91. wars 92. warship*	40. patriarchal 41. pauingassi 42. peguis 43. pikogan 44. reconciliation 45. saanich 46. semiahmoo 47. shamattawa 48. snaw-naw-as 49. snuneymuxw 50. stz'uminus 51. tadoule 52. territor* 53. tlingit 54. uashat-maliotenam 55. uqaqtitiji 56. wela'lin 57. wet'suwet'en 58. wiiliideh	

* Denotes where light lemmatization was proposed.

APPENDIX B

GUIDELINES AND CODEBOOK

To access the commented R code and the dataset used in this paper's analysis, please visit the following GitHub page: <https://github.com/AlexandreMillette1989/CanadianHansardArcticNPF>

Guidelines used:

- All the selected interventions MPs made occurred during the House of Commons debates and had the discussed topic tag: Canadian Arctic sovereignty.
- The unmodified unit of analysis was the interventions of each MP as a bag-of-words. These were modified slightly before the study began (see below).

We tokenized the text of each intervention and applied the following modifications:

- We transformed all characters to lower case.
- We removed all punctuation.
- We removed all symbols.
- We removed all numbers.
- We removed the English stop words integrated in the quanteda package (see Benoit et al., 2018).

Based on these modifications, we calculated the number of words for each intervention.

Our dictionary (see Appendix A) was created based on literature knowledge and a manual reading of a randomized sample of MPs' interventions (30% of our total). Overall, we identified over 200 words that were divided into four themes. Some light lemmatization was proposed (see words with an *).

A document-feature matrix was then used on the modified tokenized version of the texts to look up words from

our dictionary in each intervention. Whenever a word from our dictionary was mentioned, we added one occurrence to that theme within an intervention. Therefore, if no word from our dictionary was mentioned in a theme, the final result was zero. This gave us the number of words from our dictionary for each theme per intervention.

Because each intervention's length was different, we ratioed our results, for comparison, using the following formula:

$$\frac{\text{number of words per theme}}{\text{total number of words}} \times 100$$

Once we obtained our results through text analysis, we ran a randomized manual verification (30% of our total). This helped us gain context for the analysis.

Only one person validated the results in this paper as it was done through natural language processing/automated text analysis. However, future research might use multiple coders and validate reliability using Cohen's kappa or a similar method, especially if they are using manual coding.

Dataset Variables

- Variable 1: legislature information
- Variable 2: session information
- Variable 3: MP name
- Variable 4: caucus (MP political party)
- Variable 5: intervention (narrative / MP speech)
- Variable 6: nword (number of words per intervention)
- Variable 7: environment and climate ratio
- Variable 8: military and security ratio
- Variable 9: Indigenous Peoples ratio
- Variable 10: economy and resources ratio