How do archaeologists write about race? Computational text analysis of 40 years of Society of American Archaeology Annual Meeting Abstracts.

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Text of abstract

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Keywords: keyword 1; keyword 2; keyword 3

Highlights: These are the highlights

source(here::here('analysis/code/001-word-stats-plots.R'))

source(here::here('analysis/code/002-topic-model.R'))  
#> Beginning Spectral Initialization   
#> Calculating the gram matrix...  
#> Finding anchor words...  
#> Initializing tSNE with PCA...  
#> Using tSNE to project to a low-dimensional space...  
#> Calculating exact convex hull...  
#>   
#> Recovering initialization...  
#> .................................................................................................  
#> Initialization complete.  
#> ........................................  
#> Completed E-Step (20 seconds).   
#> Completed M-Step.   
#> Completing Iteration 1 (approx. per word bound = -8.224)   
#> ........................................  
#> Completed E-Step (12 seconds).   
#> Completed M-Step.   
#> Completing Iteration 2 (approx. per word bound = -8.170, relative change = 6.678e-03)   
#> ........................................  
#> Completed E-Step (10 seconds).   
#> Completed M-Step.   
#> Completing Iteration 3 (approx. per word bound = -8.146, relative change = 2.838e-03)   
#> ........................................  
#> Completed E-Step (12 seconds).   
#> Completed M-Step.   
#> Completing Iteration 4 (approx. per word bound = -8.140, relative change = 8.074e-04)   
#> ........................................  
#> Completed E-Step (7 seconds).   
#> Completed M-Step.   
#> Completing Iteration 5 (approx. per word bound = -8.138, relative change = 2.046e-04)   
#> Topic 1: first, landscape, organizer, 75th, discussant   
#> Topic 2: abalone, landscape, ancient, understanding, using   
#> Topic 3: mexico, production, central, texas, recent   
#> Topic 4: aecom, landscape, ancient, using, understanding   
#> Topic 5: alban, central, recent, remains, time   
#> Topic 6: alexandria, material, well, production, time   
#> Topic 7: approximate, time, well, material, remains   
#> Topic 8: arabia, production, using, political, understanding   
#> Topic 9: arch, central, well, time, mexico   
#> Topic 10: archacological, california, recent, central, basin   
#> Topic 11: california, central, mexico, production, archacology   
#> Topic 12: archae, system, information, changes, recent   
#> Topic 13: california, first, ancient, political, landscape   
#> Topic 14: bautista, time, using, material, project   
#> Topic 15: bio, time, well, material, remains   
#> Topic 16: central, material, political, production, recent   
#> Topic 17: boarding, landscape, understanding, ancient, using   
#> Topic 18: boat, pottery, well, time, central   
#> Topic 19: budget, time, well, using, project   
#> Topic 20: well, time, material, a.d, remains   
#> Topic 21: canine, using, well, time, material   
#> Topic 22: canoes, using, production, time, material   
#> Topic 23: cenote, time, well, material, using   
#> Topic 24: survey, resources, development, chaeological, central   
#> Topic 25: lithic, resource, california, central, production   
#> Topic 26: conchopata, material, landscape, political, production   
#> Topic 27: pottery, a.d, tradition, ceramic, north   
#> Topic 28: crater, time, well, central, remains   
#> Topic 29: hohokam, central, recent, pottery, regional   
#> Topic 30: cupisnique, well, time, pottery, material   
#> Topic 31: recent, central, north, time, survey   
#> Topic 32: remains, discussant, mexico, identity, díaz   
#> Topic 33: production, recent, ceramic, middle, regional   
#> Topic 34: individual, landscape, using, ancient, well   
#> Topic 35: drives, well, time, remains, central   
#> Topic 36: ear, time, central, remains, recent   
#> Topic 37: emergency, hohokam, points, pottery, time   
#> Topic 38: epoch, time, well, material, remains   
#> Topic 39: erie, central, time, well, remains   
#> Topic 40: essentially, central, time, pottery, well   
#> Topic 41: etlatongo, landscape, individual, material, ancient   
#> Topic 42: except, time, well, central, remains   
#> Topic 43: facies, survey, regional, production, project   
#> Topic 44: fluting, production, material, central, using   
#> Topic 45: lithic, production, subsistence, survey, model   
#> Topic 46: función, landscape, ancient, understanding, using   
#> Topic 47: pottery, a.d, time, well, b.c   
#> Topic 48: gradiometer, using, material, production, time   
#> Topic 49: production, ancient, recent, material, central   
#> Topic 50: haudenosaunee, landscape, understanding, using, ancient   
#> Topic 51: housepits, production, material, central, using   
#> Topic 52: ing, regional, hohokam, changes, organization   
#> Topic 53: jpac, using, ancient, material, landscape   
#> Topic 54: metadata, landscape, ancient, using, understanding   
#> Topic 55: microartifact, material, using, time, well   
#> Topic 56: survey, central, mexico, areas, time   
#> Topic 57: molars, using, well, time, production   
#> Topic 58: mother, using, well, material, time   
#> Topic 59: muerto, time, material, well, project   
#> Topic 60: ceramic, recent, production, regional, organization   
#> Topic 61: natasha, landscape, ancient, using, understanding   
#> Topic 62: 79th, well, time, landscape, material   
#> Topic 63: pottery, archaic, notched, time, well   
#> Topic 64: using, ancient, material, well, landscape   
#> Topic 65: regional, production, may, recent, central   
#> Topic 66: patrimonio, landscape, understanding, ancient, using   
#> Topic 67: pátzcuaro, first, landscape, ancient, political   
#> Topic 68: peer, using, time, material, production   
#> Topic 69: points, peri, time, well, pottery   
#> Topic 70: permitted, time, central, well, material   
#> Topic 71: central, recent, california, remains, mexico   
#> Topic 72: población, landscape, ancient, understanding, political   
#> Topic 73: posts, pottery, time, well, central   
#> Topic 74: premodern, using, time, well, material   
#> Topic 75: presenta, well, material, time, using   
#> Topic 76: pro, lithic, mississippian, changes, resources   
#> Topic 77: programa, production, material, using, time   
#> Topic 78: time, central, well, remains, material   
#> Topic 79: sampling, population, systems, system, model   
#> Topic 80: individual, understanding, landscape, mexico, using   
#> Topic 81: reeves, material, production, well, time   
#> Topic 82: savanna, using, well, time, production   
#> Topic 83: production, mexico, central, material, remains   
#> Topic 84: time, well, remains, central, may   
#> Topic 85: scheduling, time, material, central, recent   
#> Topic 86: schoeninger, production, central, recent, using   
#> Topic 87: seattle, production, material, central, recent   
#> Topic 88: shivwits, landscape, ancient, understanding, using   
#> Topic 89: snake, time, well, central, material   
#> Topic 90: stacy, landscape, ancient, using, understanding   
#> Topic 91: stratum, time, well, central, material   
#> Topic 92: straus, production, material, using, central   
#> Topic 93: southern, exchange, material, recent, lithic   
#> Topic 94: teotihuacán, ancient, using, landscape, understanding   
#> Topic 95: political, discussant, landscape, material, central   
#> Topic 96: recent, central, subsistence, northern, regional   
#> Topic 97: tlalancaleca, landscape, ancient, well, understanding   
#> Topic 98: tongva, landscape, understanding, ancient, using   
#> Topic 99: texas, mexico, central, regional, landscape   
#> Topic 100: twelfth, time, using, well, remains   
#> Topic 101: twenty, archaic, pottery, sequence, points   
#> Topic 102: ucsb, production, central, recent, using   
#> Topic 103: central, time, well, pottery, remains   
#> Topic 104: usace, landscape, ancient, using, understanding   
#> Topic 105: landscape, individual, material, ancient, well   
#> Topic 106: time, mexico, material, well, a.d   
#> Topic 107: weeden, population, systems, remains, techniques   
#> Topic 108: wilderness, well, material, time, project   
#> Topic 109: central, first, recent, remains, river   
#> Topic 110: first, landscape, political, recent, understanding   
#> Topic 111: individual, ancient, landscape, using, well   
#> Topic 112: recent, changes, ceramic, remains, large   
#> Topic 113: yunnan, ancient, understanding, landscape, using   
#> Topic 114: 80th, understanding, landscape, ancient, well   
#> Topic 115: zimmerman, material, production, central, well   
#> Topic 116: landscape, ancient, 81st, local, understanding   
#> Topic 117: landscape, ancient, first, ritual, political   
#> ........................................  
#> Completed E-Step (7 seconds).   
#> Completed M-Step.   
#> Completing Iteration 6 (approx. per word bound = -8.137, relative change = 1.361e-04)   
#> ........................................  
#> Completed E-Step (9 seconds).   
#> Completed M-Step.   
#> Completing Iteration 7 (approx. per word bound = -8.136, relative change = 1.470e-04)   
#> ........................................  
#> Completed E-Step (8 seconds).   
#> Completed M-Step.   
#> Completing Iteration 8 (approx. per word bound = -8.135, relative change = 1.217e-04)   
#> ........................................  
#> Completed E-Step (8 seconds).   
#> Completed M-Step.   
#> Completing Iteration 9 (approx. per word bound = -8.134, relative change = 1.206e-04)   
#> ........................................  
#> Completed E-Step (8 seconds).   
#> Completed M-Step.   
#> Completing Iteration 10 (approx. per word bound = -8.133, relative change = 1.055e-04)   
#> Topic 1: first, landscape, organizer, 75th, discussant   
#> Topic 2: abalone, landscape, ancient, understanding, using   
#> Topic 3: mexico, production, central, texas, recent   
#> Topic 4: aecom, landscape, ancient, using, understanding   
#> Topic 5: alban, central, recent, remains, river   
#> Topic 6: alexandria, survey, areas, management, resources   
#> Topic 7: approximate, time, well, material, remains   
#> Topic 8: arabia, production, using, political, understanding   
#> Topic 9: arch, central, well, time, mexico   
#> Topic 10: archacological, california, recent, central, basin   
#> Topic 11: california, central, mexico, archacology, production   
#> Topic 12: archae, system, information, changes, recent   
#> Topic 13: california, first, ancient, political, landscape   
#> Topic 14: woodland, survey, time, information, project   
#> Topic 15: bio, time, well, material, remains   
#> Topic 16: central, material, political, production, recent   
#> Topic 17: boarding, landscape, understanding, using, ancient   
#> Topic 18: boat, pottery, well, time, central   
#> Topic 19: budget, time, well, project, using   
#> Topic 20: well, time, a.d, material, remains   
#> Topic 21: canine, using, well, time, material   
#> Topic 22: canoes, using, production, time, material   
#> Topic 23: cenote, time, well, material, archaeologists   
#> Topic 24: chaeological, survey, resources, development, presented   
#> Topic 25: lithic, resource, california, central, production   
#> Topic 26: conchopata, material, landscape, political, production   
#> Topic 27: pottery, a.d, tradition, cord, ceramic   
#> Topic 28: crater, central, ceramic, recent, large   
#> Topic 29: hohokam, central, pottery, recent, regional   
#> Topic 30: cupisnique, well, time, pottery, remains   
#> Topic 31: recent, central, north, time, survey   
#> Topic 32: remains, mexico, archaeologists, material, central   
#> Topic 33: production, recent, ceramic, middle, regional   
#> Topic 34: individual, using, landscape, ancient, well   
#> Topic 35: drives, well, time, remains, central   
#> Topic 36: ear, time, central, remains, recent   
#> Topic 37: emergency, hohokam, points, pottery, time   
#> Topic 38: epoch, time, well, material, remains   
#> Topic 39: erie, central, time, well, recent   
#> Topic 40: essentially, pottery, central, time, remains   
#> Topic 41: etlatongo, landscape, individual, material, well   
#> Topic 42: except, time, well, central, remains   
#> Topic 43: survey, regional, areas, central, techniques   
#> Topic 44: fluting, production, material, central, using   
#> Topic 45: lithic, production, subsistence, survey, model   
#> Topic 46: función, landscape, ancient, understanding, using   
#> Topic 47: a.d, pottery, time, well, b.c   
#> Topic 48: gradiometer, using, material, production, time   
#> Topic 49: production, ancient, recent, material, central   
#> Topic 50: haudenosaunee, landscape, understanding, using, ancient   
#> Topic 51: housepits, production, material, central, using   
#> Topic 52: ing, tion, tions, ment, regional   
#> Topic 53: jpac, using, ancient, material, landscape   
#> Topic 54: metadata, landscape, ancient, using, understanding   
#> Topic 55: microartifact, material, using, time, well   
#> Topic 56: lithic, survey, mexico, central, areas   
#> Topic 57: molars, using, time, well, production   
#> Topic 58: mother, using, well, material, time   
#> Topic 59: muerto, time, well, material, project   
#> Topic 60: ceramic, recent, production, regional, organization   
#> Topic 61: natasha, landscape, ancient, using, understanding   
#> Topic 62: 79th, well, time, landscape, material   
#> Topic 63: pottery, notched, archaic, time, well   
#> Topic 64: using, material, ancient, well, time   
#> Topic 65: regional, production, may, recent, central   
#> Topic 66: patrimonio, landscape, understanding, ancient, using   
#> Topic 67: pátzcuaro, first, landscape, ancient, political   
#> Topic 68: peer, archaeologists, american, time, small   
#> Topic 69: points, peri, pottery, time, well   
#> Topic 70: permitted, central, material, time, well   
#> Topic 71: central, recent, california, remains, mexico   
#> Topic 72: población, landscape, ancient, understanding, political   
#> Topic 73: posts, pottery, time, well, central   
#> Topic 74: premodern, using, time, well, material   
#> Topic 75: presenta, well, material, time, remains   
#> Topic 76: pro, mississippian, lithic, changes, resources   
#> Topic 77: programa, production, material, using, time   
#> Topic 78: time, central, well, remains, material   
#> Topic 79: sampling, population, systems, system, model   
#> Topic 80: individual, understanding, landscape, mexico, using   
#> Topic 81: reeves, material, production, well, time   
#> Topic 82: savanna, using, well, time, production   
#> Topic 83: production, mexico, central, material, remains   
#> Topic 84: time, well, remains, central, may   
#> Topic 85: scheduling, time, material, central, well   
#> Topic 86: schoeninger, production, central, recent, material   
#> Topic 87: seattle, production, material, central, recent   
#> Topic 88: shivwits, landscape, ancient, understanding, using   
#> Topic 89: snake, time, well, central, material   
#> Topic 90: stacy, landscape, ancient, using, understanding   
#> Topic 91: stratum, time, well, may, central   
#> Topic 92: straus, production, central, material, recent   
#> Topic 93: southern, exchange, material, recent, lithic   
#> Topic 94: teotihuacán, ancient, using, landscape, understanding   
#> Topic 95: political, discussant, landscape, material, central   
#> Topic 96: recent, central, subsistence, regional, northern   
#> Topic 97: tlalancaleca, landscape, well, ancient, understanding   
#> Topic 98: tongva, landscape, understanding, ancient, using   
#> Topic 99: texas, mexico, central, regional, southern   
#> Topic 100: twelfth, time, well, using, remains   
#> Topic 101: twenty, archaic, pottery, sequence, time   
#> Topic 102: ucsb, production, central, recent, first   
#> Topic 103: central, time, pottery, well, remains   
#> Topic 104: usace, landscape, ancient, using, understanding   
#> Topic 105: landscape, individual, material, well, ancient   
#> Topic 106: a.d, time, mexico, material, well   
#> Topic 107: weeden, population, remains, techniques, systems   
#> Topic 108: wilderness, well, material, time, project   
#> Topic 109: central, recent, first, river, remains   
#> Topic 110: first, landscape, political, recent, understanding   
#> Topic 111: individual, ancient, landscape, well, using   
#> Topic 112: recent, changes, ceramic, remains, large   
#> Topic 113: yunnan, ancient, understanding, using, landscape   
#> Topic 114: 80th, understanding, landscape, well, ancient   
#> Topic 115: zimmerman, central, remains, river, material   
#> Topic 116: landscape, ancient, 81st, local, using   
#> Topic 117: landscape, ancient, first, ritual, political   
#> ........................................  
#> Completed E-Step (7 seconds).   
#> Completed M-Step.   
#> Completing Iteration 11 (approx. per word bound = -8.132, relative change = 1.061e-04)   
#> ........................................  
#> Completed E-Step (13 seconds).   
#> Completed M-Step.   
#> Completing Iteration 12 (approx. per word bound = -8.131, relative change = 9.551e-05)   
#> ........................................  
#> Completed E-Step (8 seconds).   
#> Completed M-Step.   
#> Completing Iteration 13 (approx. per word bound = -8.131, relative change = 7.124e-05)   
#> ........................................  
#> Completed E-Step (6 seconds).   
#> Completed M-Step.   
#> Completing Iteration 14 (approx. per word bound = -8.130, relative change = 4.431e-05)   
#> ........................................  
#> Completed E-Step (7 seconds).   
#> Completed M-Step.   
#> Completing Iteration 15 (approx. per word bound = -8.130, relative change = 2.596e-05)   
#> Topic 1: first, landscape, organizer, central, recent   
#> Topic 2: abalone, landscape, ancient, understanding, using   
#> Topic 3: mexico, production, central, recent, texas   
#> Topic 4: aecom, landscape, ancient, using, understanding   
#> Topic 5: alban, central, recent, remains, river   
#> Topic 6: alexandria, survey, areas, resources, management   
#> Topic 7: approximate, time, well, material, remains   
#> Topic 8: arabia, production, using, political, understanding   
#> Topic 9: arch, well, central, time, mexico   
#> Topic 10: archacological, california, recent, central, classic   
#> Topic 11: california, archacology, central, mexico, production   
#> Topic 12: archae, system, information, changes, recent   
#> Topic 13: california, first, ancient, political, central   
#> Topic 14: survey, woodland, time, information, central   
#> Topic 15: bio, time, well, material, remains   
#> Topic 16: central, material, political, production, recent   
#> Topic 17: boarding, landscape, understanding, using, ancient   
#> Topic 18: boat, pottery, well, time, central   
#> Topic 19: budget, time, well, project, using   
#> Topic 20: a.d, bundle, well, time, material   
#> Topic 21: canine, using, well, time, material   
#> Topic 22: canoes, using, production, time, material   
#> Topic 23: cenote, time, well, material, archaeologists   
#> Topic 24: chaeological, survey, resources, development, tion   
#> Topic 25: lithic, resource, california, central, production   
#> Topic 26: conchopata, material, landscape, political, production   
#> Topic 27: pottery, a.d, cord, tradition, ceramic   
#> Topic 28: central, model, recent, large, ceramic   
#> Topic 29: hohokam, central, pottery, points, recent   
#> Topic 30: cupisnique, well, time, pottery, remains   
#> Topic 31: recent, central, north, time, survey   
#> Topic 32: remains, mexico, central, material, archaeologists   
#> Topic 33: production, recent, ceramic, middle, regional   
#> Topic 34: individual, using, landscape, well, ancient   
#> Topic 35: drives, well, time, remains, central   
#> Topic 36: ear, time, central, remains, recent   
#> Topic 37: emergency, hohokam, points, pottery, time   
#> Topic 38: epoch, time, well, material, remains   
#> Topic 39: erie, central, time, recent, well   
#> Topic 40: essentially, pottery, central, time, remains   
#> Topic 41: etlatongo, landscape, individual, material, well   
#> Topic 42: except, time, well, central, remains   
#> Topic 43: survey, regional, areas, central, techniques   
#> Topic 44: fluting, production, material, central, remains   
#> Topic 45: lithic, production, subsistence, survey, model   
#> Topic 46: función, landscape, ancient, using, understanding   
#> Topic 47: a.d, pottery, time, well, b.c   
#> Topic 48: gradiometer, using, material, production, time   
#> Topic 49: production, recent, ancient, material, central   
#> Topic 50: haudenosaunee, landscape, understanding, using, ancient   
#> Topic 51: housepits, production, material, central, using   
#> Topic 52: ing, tion, tions, ment, com   
#> Topic 53: jpac, using, material, ancient, landscape   
#> Topic 54: metadata, landscape, ancient, using, understanding   
#> Topic 55: microartifact, material, using, time, well   
#> Topic 56: lithic, survey, mexico, areas, information   
#> Topic 57: molars, using, time, well, production   
#> Topic 58: mother, using, well, material, time   
#> Topic 59: muerto, time, well, material, project   
#> Topic 60: ceramic, recent, production, regional, organization   
#> Topic 61: natasha, landscape, ancient, using, understanding   
#> Topic 62: 79th, well, time, landscape, material   
#> Topic 63: notched, pottery, archaic, time, points   
#> Topic 64: using, material, well, ancient, time   
#> Topic 65: regional, production, may, recent, central   
#> Topic 66: patrimonio, landscape, understanding, ancient, using   
#> Topic 67: pátzcuaro, first, landscape, ancient, political   
#> Topic 68: peer, archaeologists, american, time, north   
#> Topic 69: points, peri, pottery, time, well   
#> Topic 70: permitted, central, material, time, well   
#> Topic 71: central, recent, california, remains, mexico   
#> Topic 72: población, landscape, ancient, understanding, political   
#> Topic 73: posts, pottery, time, well, central   
#> Topic 74: premodern, using, time, well, material   
#> Topic 75: presenta, well, material, time, remains   
#> Topic 76: pro, mississippian, lithic, changes, resources   
#> Topic 77: programa, material, production, using, time   
#> Topic 78: time, central, well, remains, material   
#> Topic 79: sampling, population, systems, model, system   
#> Topic 80: individual, understanding, mexico, landscape, using   
#> Topic 81: reeves, material, production, well, time   
#> Topic 82: savanna, using, well, time, production   
#> Topic 83: production, mexico, central, material, remains   
#> Topic 84: time, well, remains, central, may   
#> Topic 85: scheduling, time, material, well, may   
#> Topic 86: schoeninger, production, central, recent, material   
#> Topic 87: seattle, production, material, central, recent   
#> Topic 88: shivwits, landscape, ancient, understanding, using   
#> Topic 89: snake, time, well, central, material   
#> Topic 90: stacy, landscape, ancient, using, understanding   
#> Topic 91: stratum, time, well, may, project   
#> Topic 92: straus, production, central, recent, material   
#> Topic 93: southern, exchange, material, recent, lithic   
#> Topic 94: teotihuacán, ancient, using, landscape, well   
#> Topic 95: political, discussant, landscape, material, central   
#> Topic 96: regional, organization, subsistence, mexico, recent   
#> Topic 97: tlalancaleca, landscape, well, ancient, understanding   
#> Topic 98: tongva, landscape, understanding, ancient, using   
#> Topic 99: texas, mexico, central, regional, southern   
#> Topic 100: twelfth, time, well, using, remains   
#> Topic 101: twenty, archaic, pottery, sequence, time   
#> Topic 102: ucsb, production, central, recent, first   
#> Topic 103: central, time, pottery, well, remains   
#> Topic 104: usace, landscape, ancient, using, understanding   
#> Topic 105: landscape, individual, material, well, ancient   
#> Topic 106: viru, a.d, time, mexico, material   
#> Topic 107: weeden, population, remains, techniques, systems   
#> Topic 108: wilderness, well, material, time, project   
#> Topic 109: central, recent, first, river, remains   
#> Topic 110: first, landscape, political, recent, production   
#> Topic 111: individual, ancient, well, landscape, using   
#> Topic 112: recent, changes, ceramic, remains, large   
#> Topic 113: yunnan, ancient, understanding, using, landscape   
#> Topic 114: 80th, understanding, landscape, well, ancient   
#> Topic 115: central, recent, river, american, northern   
#> Topic 116: landscape, ancient, 81st, local, using   
#> Topic 117: landscape, ancient, first, ritual, political   
#> ........................................  
#> Completed E-Step (7 seconds).   
#> Completed M-Step.   
#> Completing Iteration 16 (approx. per word bound = -8.130, relative change = 1.675e-05)   
#> ........................................  
#> Completed E-Step (5 seconds).   
#> Completed M-Step.   
#> Completing Iteration 17 (approx. per word bound = -8.130, relative change = 1.273e-05)   
#> ........................................  
#> Completed E-Step (8 seconds).   
#> Completed M-Step.   
#> Model Converged   
#> 6 topics contained 1 words in the list: 14, 43, 76, 94, 105, 111

source(here::here('analysis/code/003-word-distances-and-similarities.R'))

source(here::here('analysis/code/004-keyword-in-context.R'))

source(here::here('analysis/code/005-social-event-correlation.R'))

### 0.0.1 Colophon

This report was generated on 2021-03-03 10:20:13 using the following computational environment and dependencies:

# which R packages and versions?  
if ("devtools" %in% installed.packages()) devtools::session\_info()  
#> ─ Session info ───────────────────────────────────────────────────────────────  
#> setting value   
#> version R version 4.0.4 (2021-02-15)  
#> os macOS Catalina 10.15.7   
#> system x86\_64, darwin17.0   
#> ui X11   
#> language (EN)   
#> collate en\_US.UTF-8   
#> ctype en\_US.UTF-8   
#> tz America/Los\_Angeles   
#> date 2021-03-03   
#>   
#> ─ Packages ───────────────────────────────────────────────────────────────────  
#> package \* version date lib source   
#> abind 1.4-5 2016-07-21 [1] CRAN (R 4.0.0)   
#> assertthat 0.2.1 2019-03-21 [1] CRAN (R 4.0.0)   
#> backports 1.2.1 2020-12-09 [1] CRAN (R 4.0.2)   
#> bookdown 0.21 2020-10-13 [1] CRAN (R 4.0.2)   
#> broom 0.7.5 2021-02-19 [1] CRAN (R 4.0.2)   
#> cachem 1.0.1 2021-01-21 [1] CRAN (R 4.0.2)   
#> callr 3.5.1 2020-10-13 [1] CRAN (R 4.0.2)   
#> car 3.0-10 2020-09-29 [1] CRAN (R 4.0.2)   
#> carData 3.0-4 2020-05-22 [1] CRAN (R 4.0.0)   
#> cellranger 1.1.0 2016-07-27 [1] CRAN (R 4.0.0)   
#> cli 2.3.1 2021-02-23 [1] CRAN (R 4.0.3)   
#> colorspace 2.0-0 2020-11-11 [1] CRAN (R 4.0.2)   
#> cowplot \* 1.1.1 2020-12-30 [1] CRAN (R 4.0.2)   
#> crayon 1.4.1 2021-02-08 [1] CRAN (R 4.0.2)   
#> curl 4.3 2019-12-02 [1] CRAN (R 4.0.0)   
#> data.table 1.14.0 2021-02-21 [1] CRAN (R 4.0.2)   
#> DBI 1.1.1 2021-01-15 [1] CRAN (R 4.0.2)   
#> dbplyr 2.0.0 2020-11-03 [1] CRAN (R 4.0.2)   
#> desc 1.2.0 2018-05-01 [1] CRAN (R 4.0.0)   
#> devtools 2.3.2 2020-09-18 [1] CRAN (R 4.0.2)   
#> digest 0.6.27 2020-10-24 [1] CRAN (R 4.0.2)   
#> dplyr \* 1.0.4 2021-02-02 [1] CRAN (R 4.0.2)   
#> ellipsis 0.3.1 2020-05-15 [1] CRAN (R 4.0.0)   
#> evaluate 0.14 2019-05-28 [1] CRAN (R 4.0.0)   
#> fansi 0.4.2 2021-01-15 [1] CRAN (R 4.0.2)   
#> farver 2.0.3 2020-01-16 [1] CRAN (R 4.0.0)   
#> fastmap 1.1.0 2021-01-25 [1] CRAN (R 4.0.2)   
#> fastmatch 1.1-0 2017-01-28 [1] CRAN (R 4.0.0)   
#> forcats \* 0.5.1 2021-01-27 [1] CRAN (R 4.0.2)   
#> foreign 0.8-81 2020-12-22 [1] CRAN (R 4.0.4)   
#> fs 1.5.0 2020-07-31 [1] CRAN (R 4.0.2)   
#> generics 0.1.0 2020-10-31 [1] CRAN (R 4.0.2)   
#> geometry 0.4.5 2019-12-04 [1] CRAN (R 4.0.0)   
#> ggplot2 \* 3.3.3 2020-12-30 [1] CRAN (R 4.0.2)   
#> ggpubr \* 0.4.0 2020-06-27 [1] CRAN (R 4.0.1)   
#> ggrepel \* 0.9.1.9999 2021-02-25 [1] Github (slowkow/ggrepel@f5513ae)  
#> ggsignif 0.6.0 2019-08-08 [1] CRAN (R 4.0.0)   
#> glue 1.4.2 2020-08-27 [1] CRAN (R 4.0.2)   
#> gtable 0.3.0 2019-03-25 [1] CRAN (R 4.0.0)   
#> haven 2.3.1 2020-06-01 [1] CRAN (R 4.0.0)   
#> here 1.0.1 2020-12-13 [1] CRAN (R 4.0.2)   
#> hms 1.0.0 2021-01-13 [1] CRAN (R 4.0.2)   
#> htmltools 0.5.1.1 2021-01-22 [1] CRAN (R 4.0.2)   
#> httr 1.4.2 2020-07-20 [1] CRAN (R 4.0.2)   
#> ISOcodes 2020.12.04 2020-12-04 [1] CRAN (R 4.0.2)   
#> janeaustenr 0.1.5 2017-06-10 [1] CRAN (R 4.0.0)   
#> jsonlite 1.7.2 2020-12-09 [1] CRAN (R 4.0.2)   
#> knitr 1.31 2021-01-27 [1] CRAN (R 4.0.2)   
#> labeling 0.4.2 2020-10-20 [1] CRAN (R 4.0.2)   
#> lattice 0.20-41 2020-04-02 [1] CRAN (R 4.0.4)   
#> lifecycle 1.0.0 2021-02-15 [1] CRAN (R 4.0.2)   
#> lubridate 1.7.9.2 2020-11-13 [1] CRAN (R 4.0.2)   
#> magic 1.5-9 2018-09-17 [1] CRAN (R 4.0.0)   
#> magick \* 2.6.0 2021-01-13 [1] CRAN (R 4.0.2)   
#> magrittr 2.0.1 2020-11-17 [1] CRAN (R 4.0.2)   
#> Matrix 1.3-2 2021-01-06 [1] CRAN (R 4.0.4)   
#> matrixStats 0.58.0 2021-01-29 [1] CRAN (R 4.0.2)   
#> memoise 2.0.0 2021-01-26 [1] CRAN (R 4.0.2)   
#> mgcv 1.8-33 2020-08-27 [1] CRAN (R 4.0.4)   
#> modelr 0.1.8 2020-05-19 [1] CRAN (R 4.0.0)   
#> munsell 0.5.0 2018-06-12 [1] CRAN (R 4.0.0)   
#> nlme 3.1-152 2021-02-04 [1] CRAN (R 4.0.4)   
#> openxlsx 4.2.3 2020-10-27 [1] CRAN (R 4.0.2)   
#> patchwork \* 1.1.1 2020-12-17 [1] CRAN (R 4.0.2)   
#> pillar 1.5.0 2021-02-22 [1] CRAN (R 4.0.3)   
#> pkgbuild 1.2.0 2020-12-15 [1] CRAN (R 4.0.2)   
#> pkgconfig 2.0.3 2019-09-22 [1] CRAN (R 4.0.0)   
#> pkgload 1.2.0 2021-02-23 [1] CRAN (R 4.0.2)   
#> plyr 1.8.6 2020-03-03 [1] CRAN (R 4.0.0)   
#> polynom 1.4-0 2019-03-22 [1] CRAN (R 4.0.0)   
#> prettyunits 1.1.1 2020-01-24 [1] CRAN (R 4.0.0)   
#> processx 3.4.5 2020-11-30 [1] CRAN (R 4.0.2)   
#> proxyC 0.1.5 2019-07-21 [1] CRAN (R 4.0.0)   
#> ps 1.5.0 2020-12-05 [1] CRAN (R 4.0.2)   
#> purrr \* 0.3.4 2020-04-17 [1] CRAN (R 4.0.0)   
#> quanteda \* 2.1.2 2020-09-23 [1] CRAN (R 4.0.2)   
#> R6 2.5.0 2020-10-28 [1] CRAN (R 4.0.2)   
#> ragg \* 0.4.1 2021-01-11 [1] CRAN (R 4.0.2)   
#> Rcpp 1.0.6 2021-01-15 [1] CRAN (R 4.0.2)   
#> RcppParallel 5.0.2 2020-06-24 [1] CRAN (R 4.0.0)   
#> readr \* 1.4.0 2020-10-05 [1] CRAN (R 4.0.2)   
#> readxl \* 1.3.1 2019-03-13 [1] CRAN (R 4.0.0)   
#> remotes 2.2.0 2020-07-21 [1] CRAN (R 4.0.2)   
#> reprex 1.0.0 2021-01-27 [1] CRAN (R 4.0.2)   
#> reshape2 1.4.4 2020-04-09 [1] CRAN (R 4.0.0)   
#> rio 0.5.16 2018-11-26 [1] CRAN (R 4.0.2)   
#> rlang 0.4.10 2020-12-30 [1] CRAN (R 4.0.3)   
#> rmarkdown 2.6 2020-12-14 [1] CRAN (R 4.0.2)   
#> rprojroot 2.0.2 2020-11-15 [1] CRAN (R 4.0.2)   
#> rstatix 0.6.0 2020-06-18 [1] CRAN (R 4.0.1)   
#> rstudioapi 0.13 2020-11-12 [1] CRAN (R 4.0.2)   
#> rsvd 1.0.3 2020-02-17 [1] CRAN (R 4.0.0)   
#> Rtsne 0.15 2018-11-10 [1] CRAN (R 4.0.0)   
#> rvest \* 0.3.6 2020-07-25 [1] CRAN (R 4.0.2)   
#> scales 1.1.1 2020-05-11 [1] CRAN (R 4.0.0)   
#> selectr 0.4-2 2019-11-20 [1] CRAN (R 4.0.0)   
#> sessioninfo 1.1.1 2018-11-05 [1] CRAN (R 4.0.0)   
#> SnowballC 0.7.0 2020-04-01 [1] CRAN (R 4.0.0)   
#> stm \* 1.3.6 2020-09-18 [1] CRAN (R 4.0.2)   
#> stopwords 2.1 2020-12-08 [1] CRAN (R 4.0.2)   
#> stringi 1.5.3 2020-09-09 [1] CRAN (R 4.0.2)   
#> stringr \* 1.4.0 2019-02-10 [1] CRAN (R 4.0.0)   
#> systemfonts 0.3.2 2020-09-29 [1] CRAN (R 4.0.2)   
#> testthat 3.0.2 2021-02-14 [1] CRAN (R 4.0.2)   
#> textshaping 0.2.1 2020-11-13 [1] CRAN (R 4.0.2)   
#> tibble \* 3.1.0 2021-02-25 [1] CRAN (R 4.0.2)   
#> tidyr \* 1.1.2 2020-08-27 [1] CRAN (R 4.0.2)   
#> tidyselect 1.1.0 2020-05-11 [1] CRAN (R 4.0.0)   
#> tidytext \* 0.3.0 2021-01-06 [1] CRAN (R 4.0.2)   
#> tidyverse \* 1.3.0 2019-11-21 [1] CRAN (R 4.0.2)   
#> tokenizers 0.2.1 2018-03-29 [1] CRAN (R 4.0.0)   
#> usethis 2.0.0 2020-12-10 [1] CRAN (R 4.0.2)   
#> utf8 1.1.4 2018-05-24 [1] CRAN (R 4.0.0)   
#> vctrs 0.3.6 2020-12-17 [1] CRAN (R 4.0.2)   
#> withr 2.4.1 2021-01-26 [1] CRAN (R 4.0.2)   
#> xfun 0.21 2021-02-10 [1] CRAN (R 4.0.2)   
#> xml2 \* 1.3.2 2020-04-23 [1] CRAN (R 4.0.0)   
#> yaml 2.2.1 2020-02-01 [1] CRAN (R 4.0.0)   
#> zip 2.1.1 2020-08-27 [1] CRAN (R 4.0.2)   
#>   
#> [1] /Library/Frameworks/R.framework/Versions/4.0/Resources/library

The current Git commit details are:

# what commit is this file at?   
if ("git2r" %in% installed.packages() & git2r::in\_repository(path = ".")) git2r::repository(here::here())   
#> Local: master /Users/bmarwick/Desktop/bulletinracisminarchy  
#> Remote: master @ origin (https://github.com/parkgayoung/bulletinracisminarchy)  
#> Head: [463d274] 2021-02-22: many changes to figure 5 to make it clearer to understand