

United States Politicians' Tone Became More Negative with 2016 Primary Campaigns

Author names to be added here (submissions will be non-blind)

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Supplementary Information

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1 Figures

1.1 Quotation Aggregation

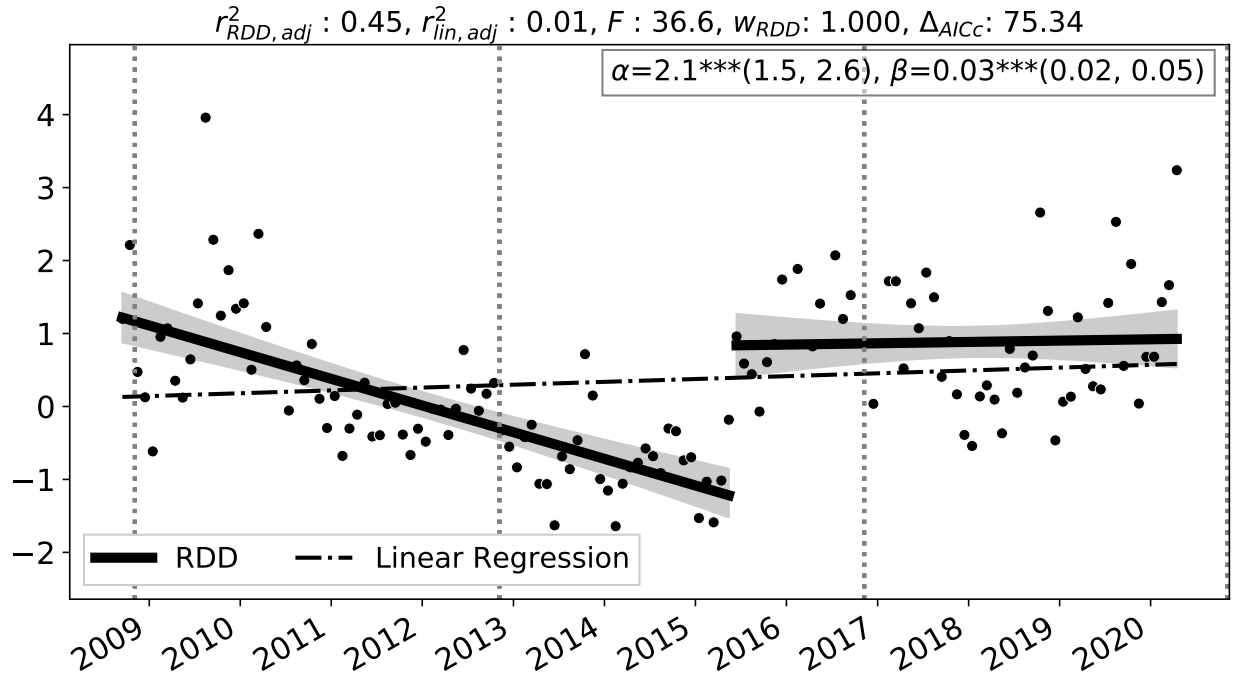


Figure 1: Neg. Emotion (empath): Quotation Aggregation

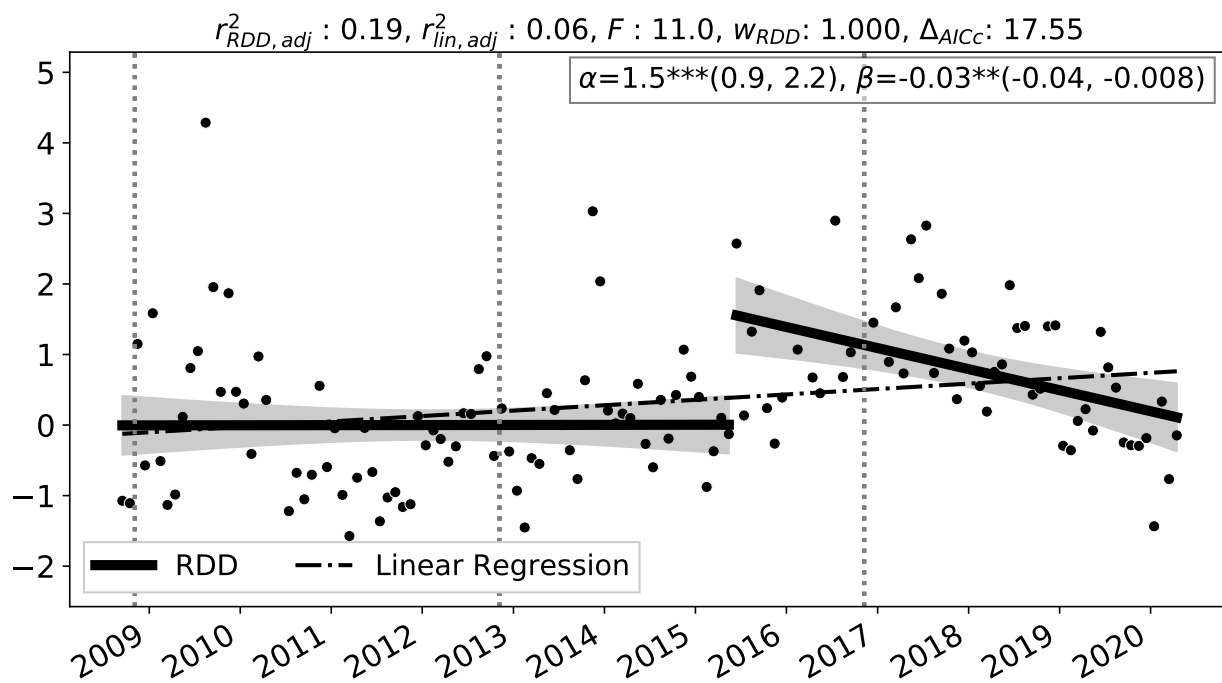


Figure 2: Pos. Emotion (empathy): Quotation Aggregation

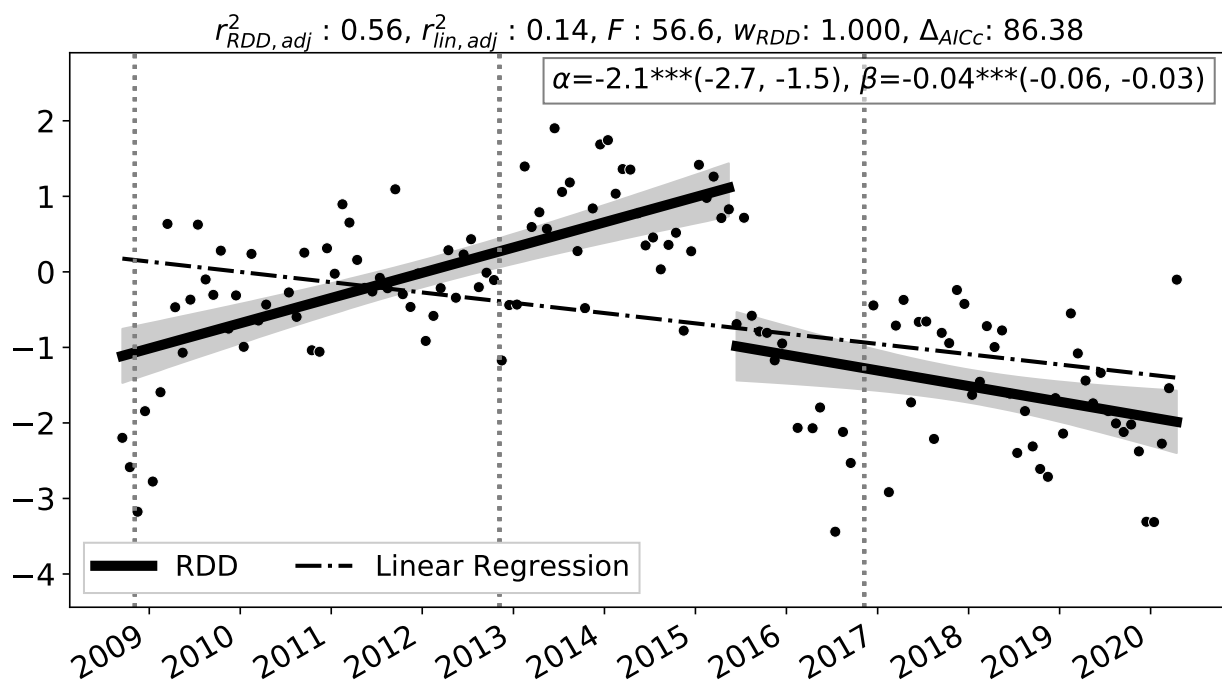


Figure 3: Science (empathy): Quotation Aggregation

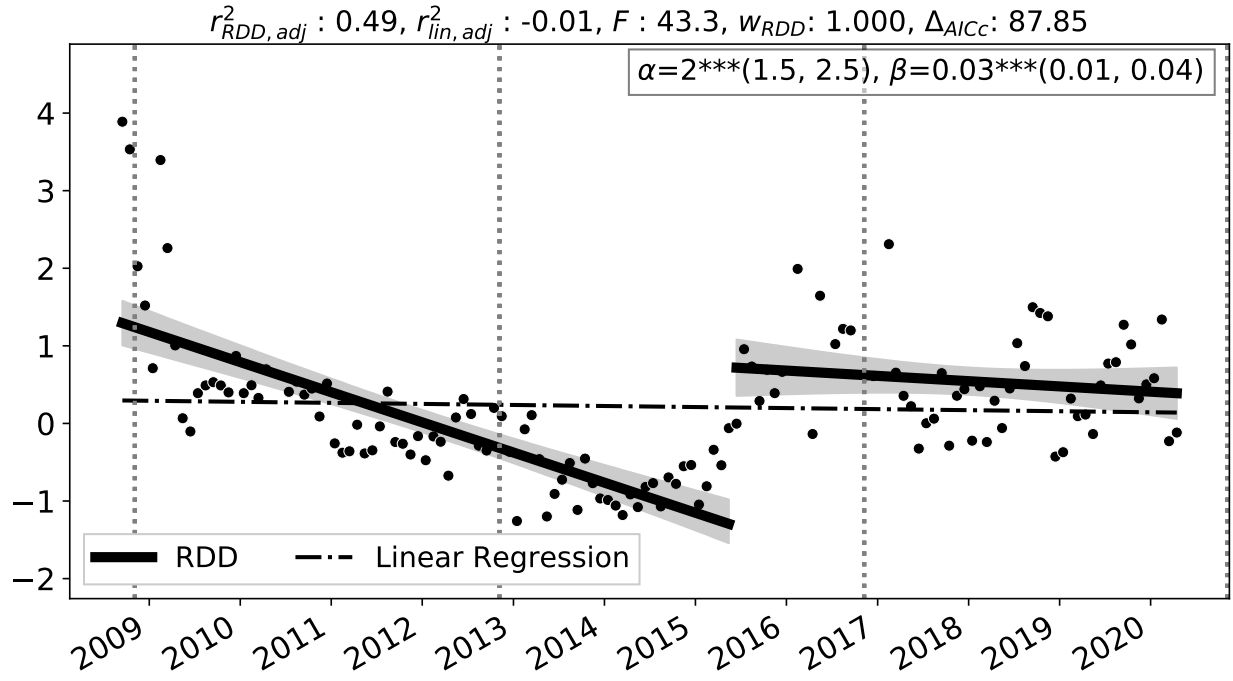


Figure 4: Swearing (empathy): Quotation Aggregation

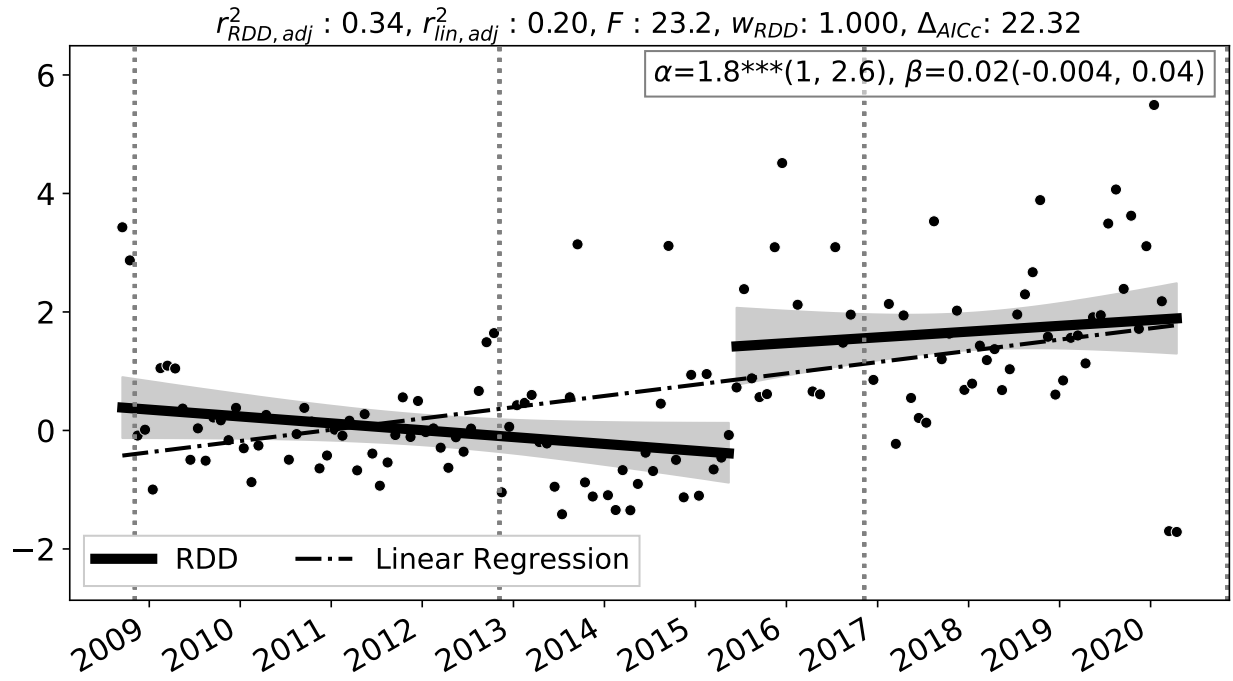


Figure 5: Anger: Quotation Aggregation

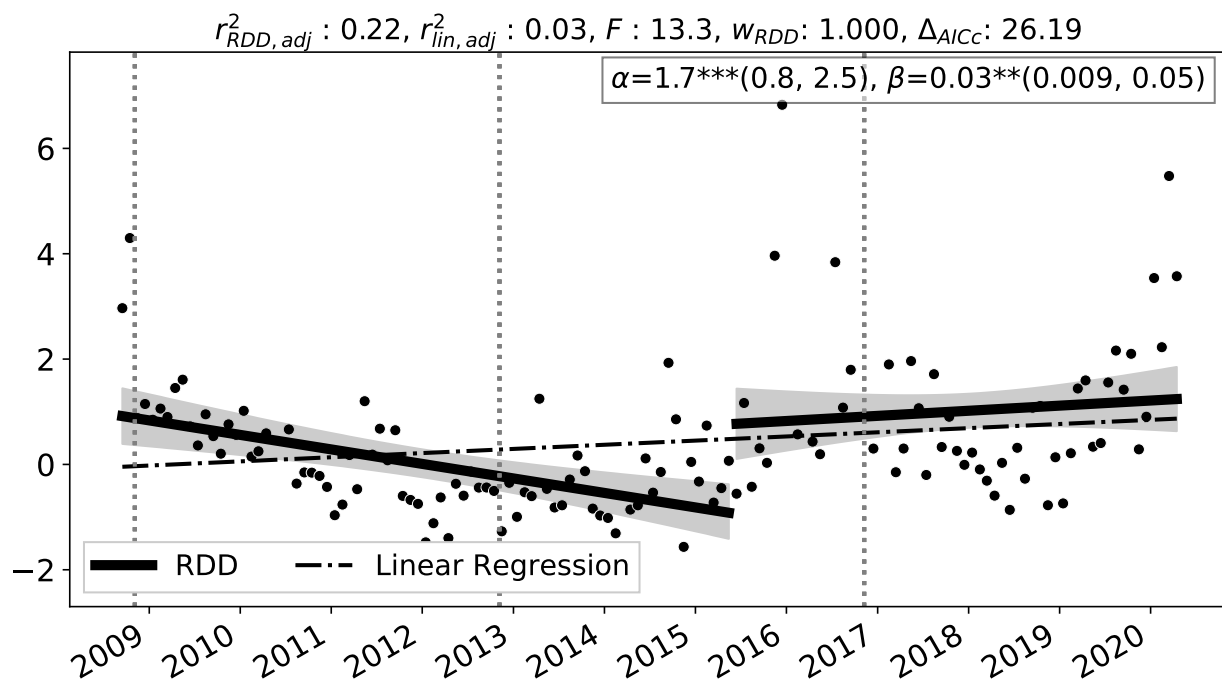


Figure 6: Anxiety: Quotation Aggregation

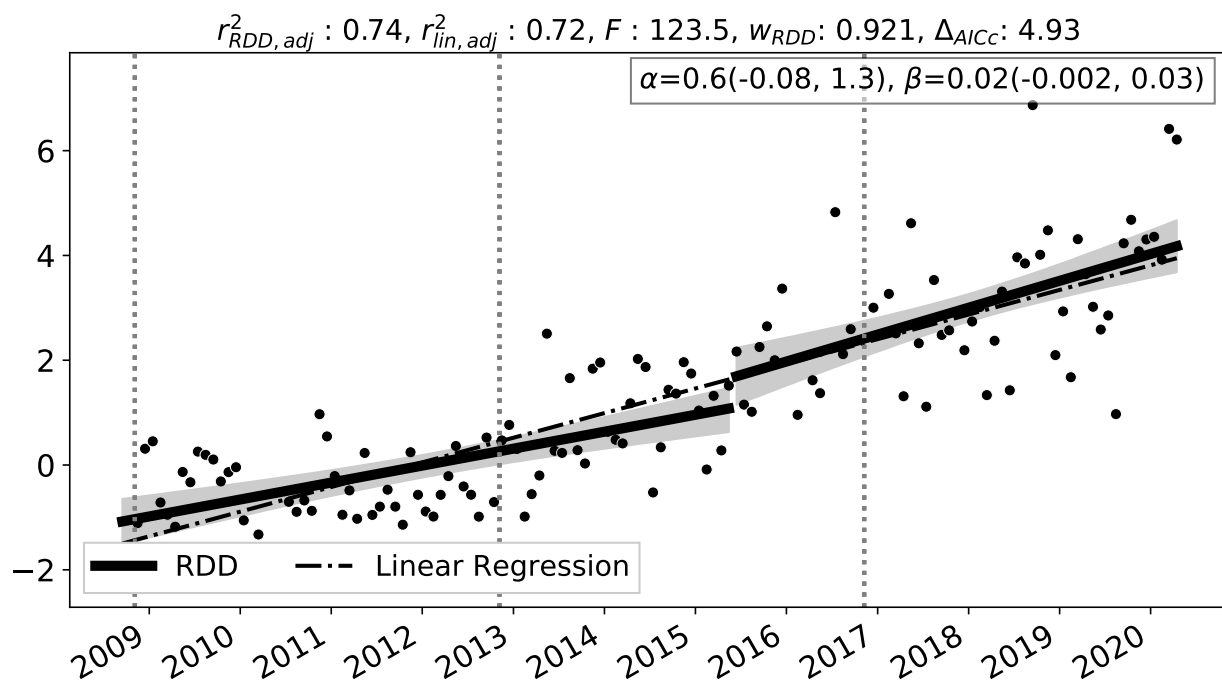


Figure 7: Certainty: Quotation Aggregation

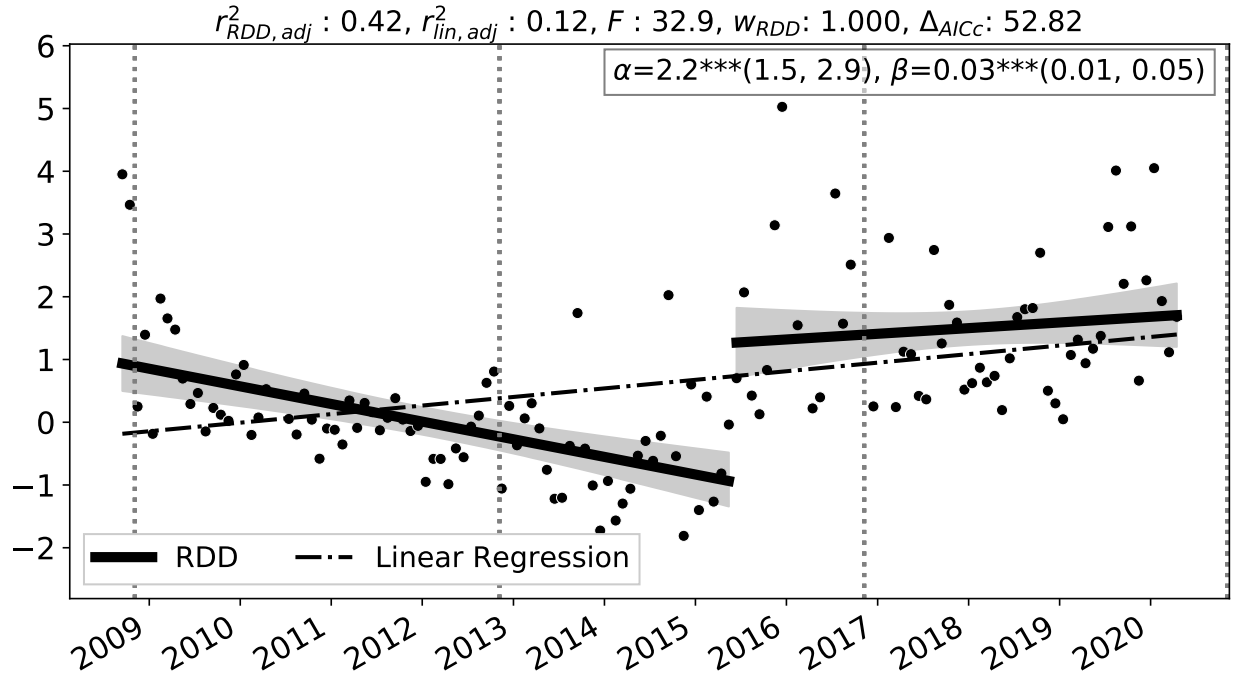


Figure 8: Negative Emotions: Quotation Aggregation

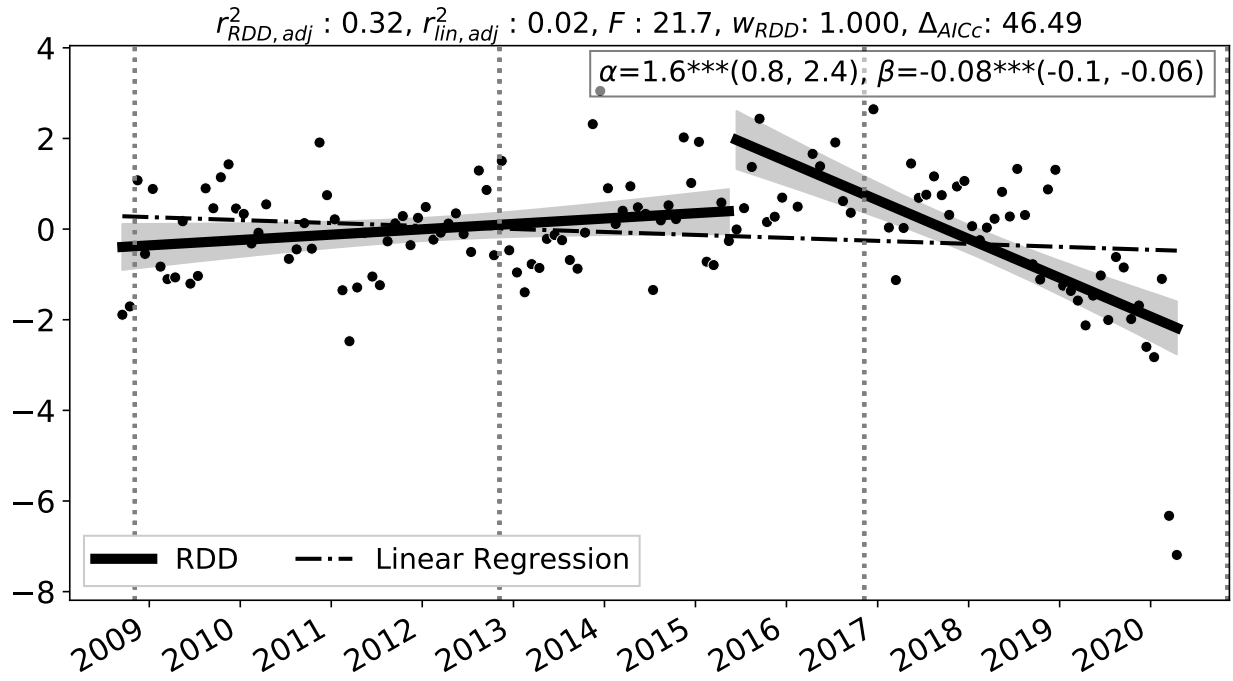


Figure 9: Positive Emotions: Quotation Aggregation

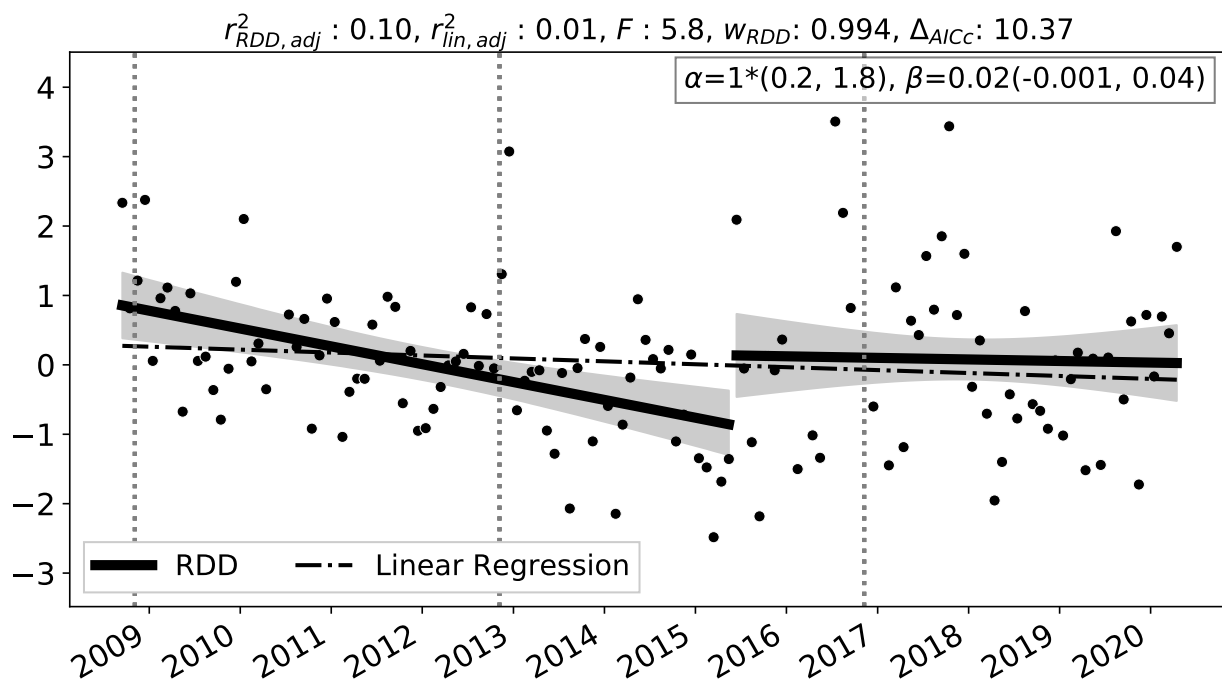


Figure 10: Sadness: Quotation Aggregation

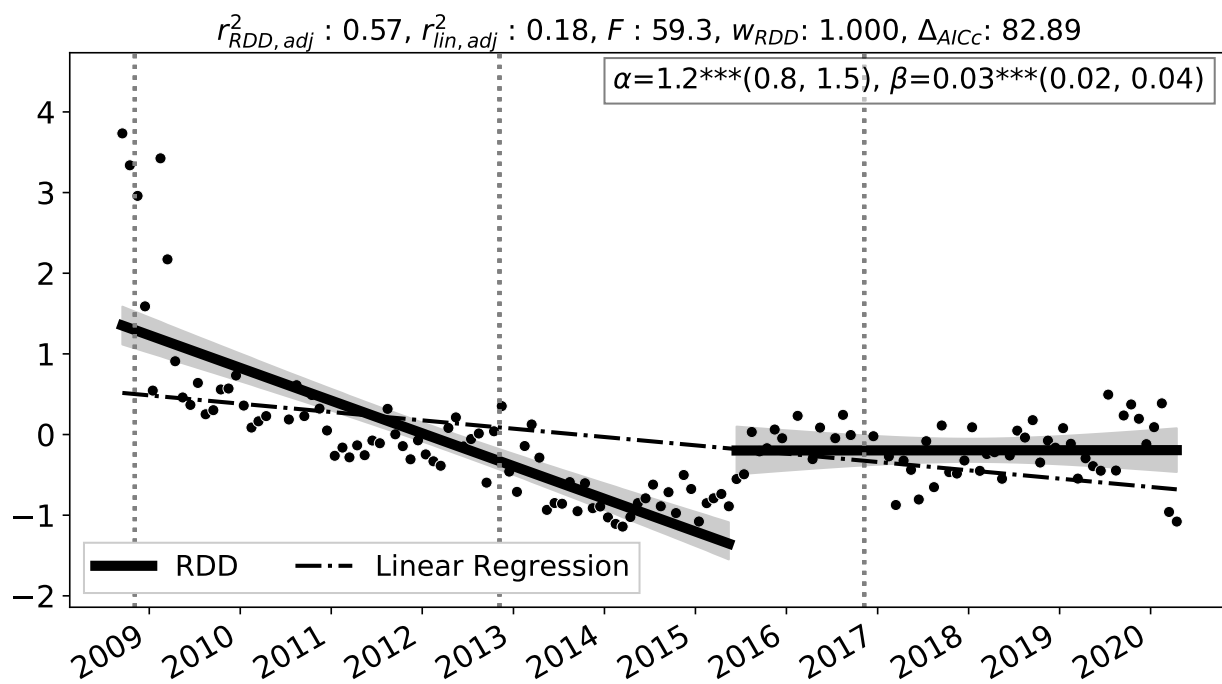


Figure 11: Swearing Terms: Quotation Aggregation

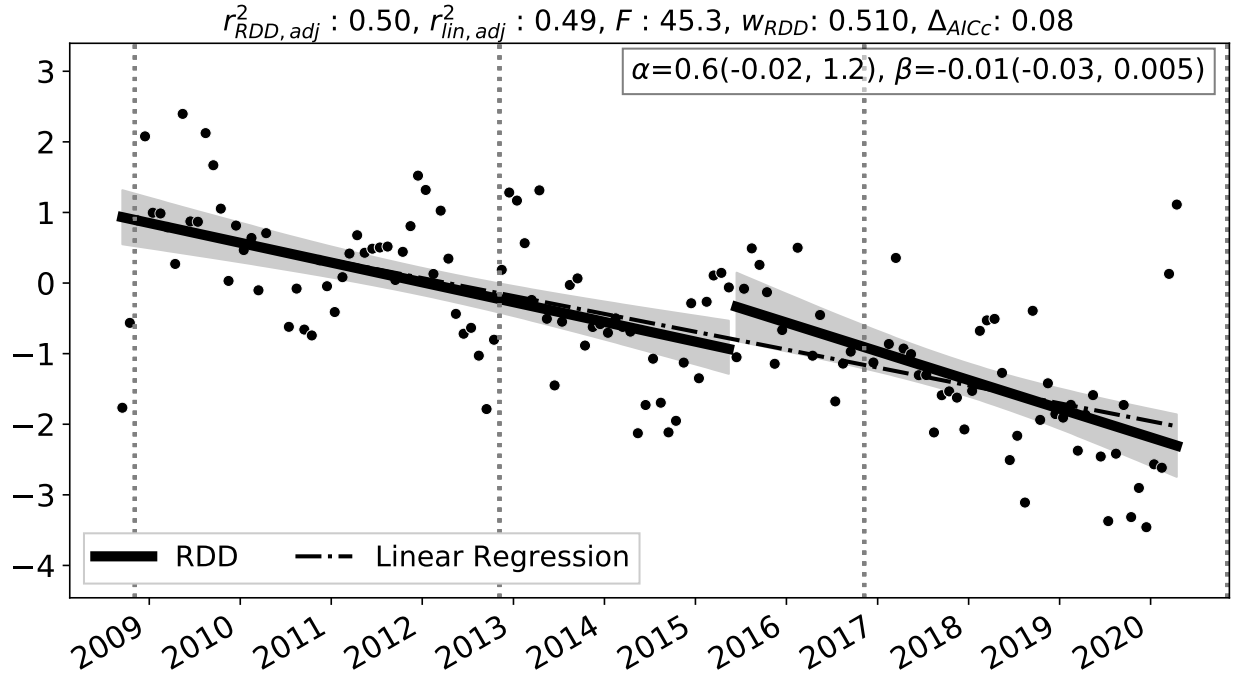


Figure 12: Tentativeness: Quotation Aggregation

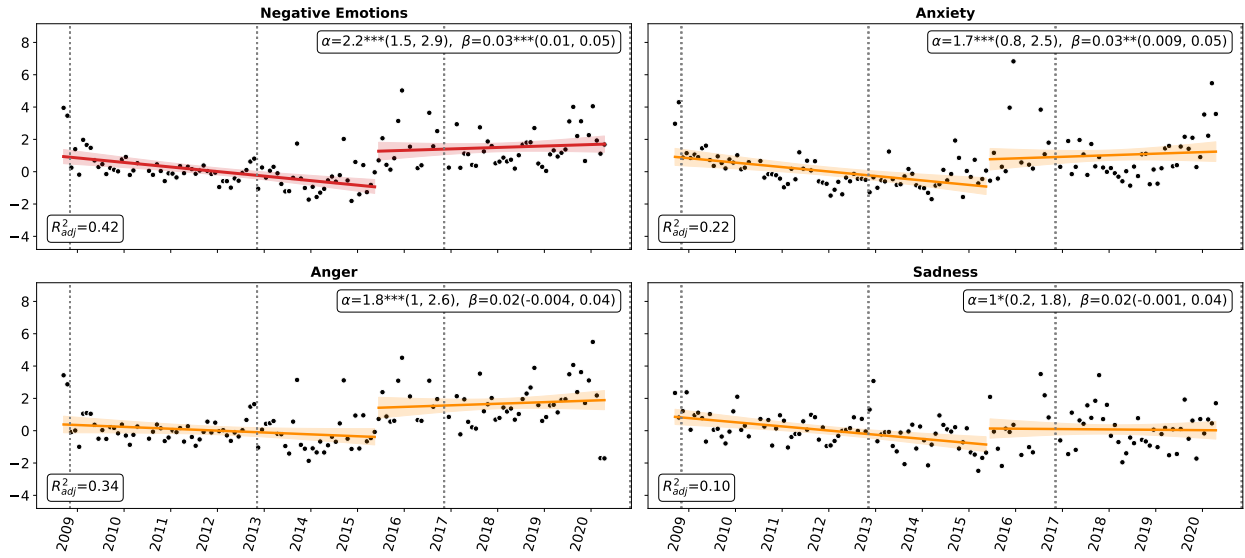


Figure 13: Negative Emotions: Quotation Aggregation

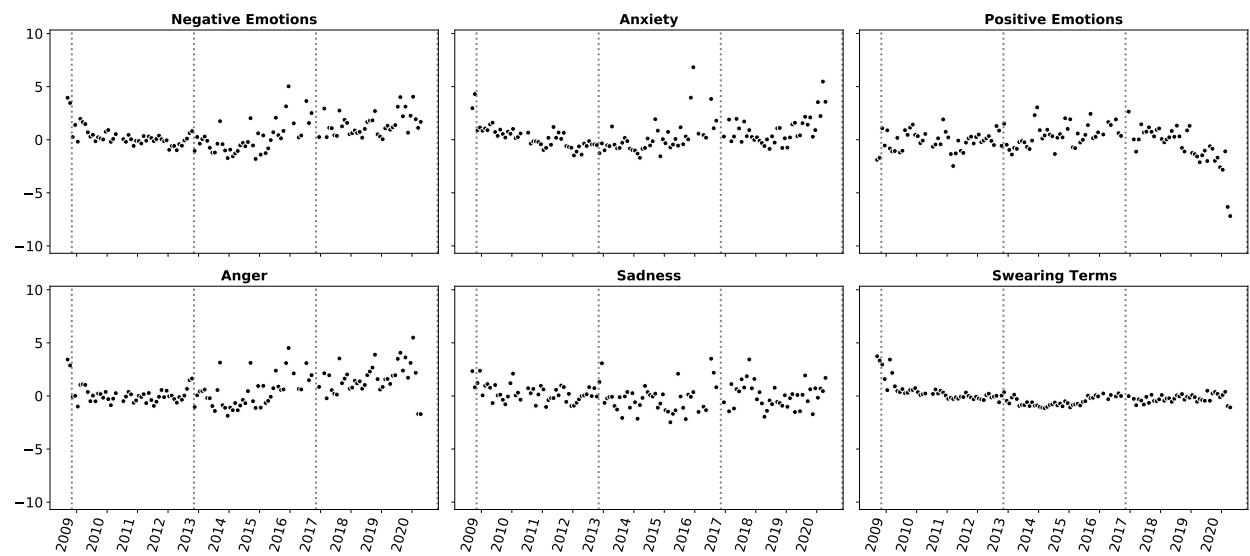


Figure 14: Raw Sentiment Scores: Quotation Aggregation

1.2 Quotation Aggregation, Excluding Outliers

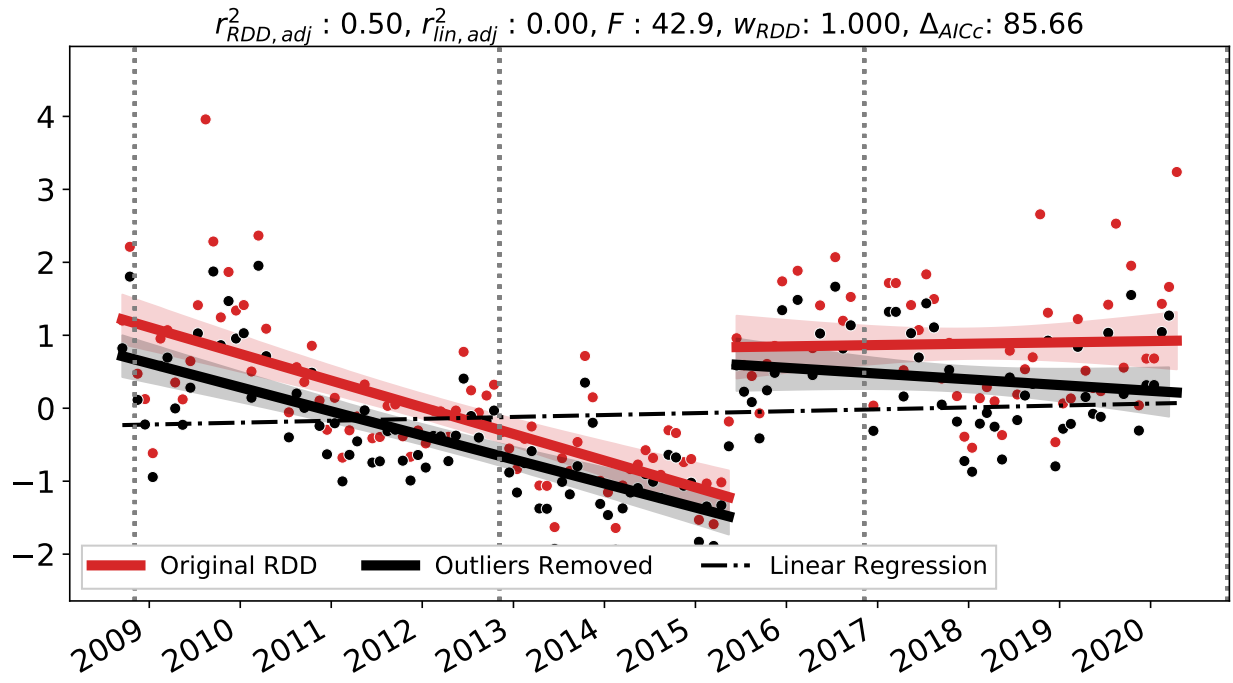


Figure 15: Neg. Emotion (empath): Quotation Aggregation (Outliers removed)

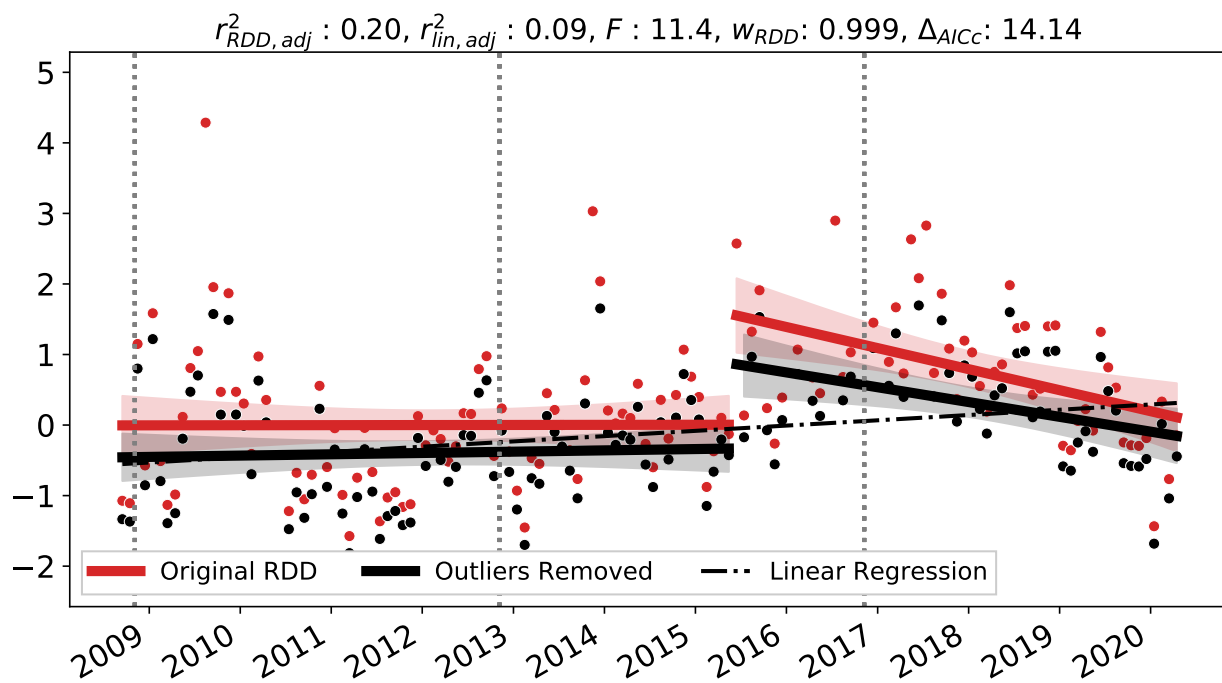


Figure 16: Pos. Emotion (empathy): Quotation Aggregation (Outliers removed)

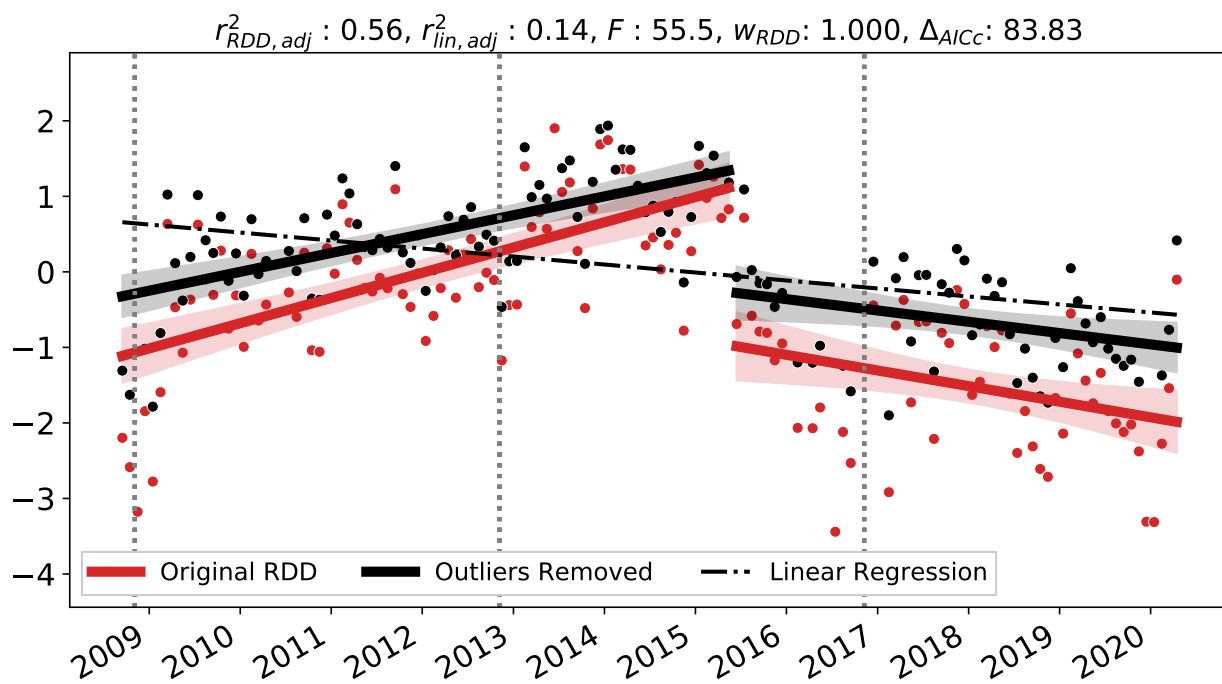


Figure 17: Science (empathy): Quotation Aggregation (Outliers removed)

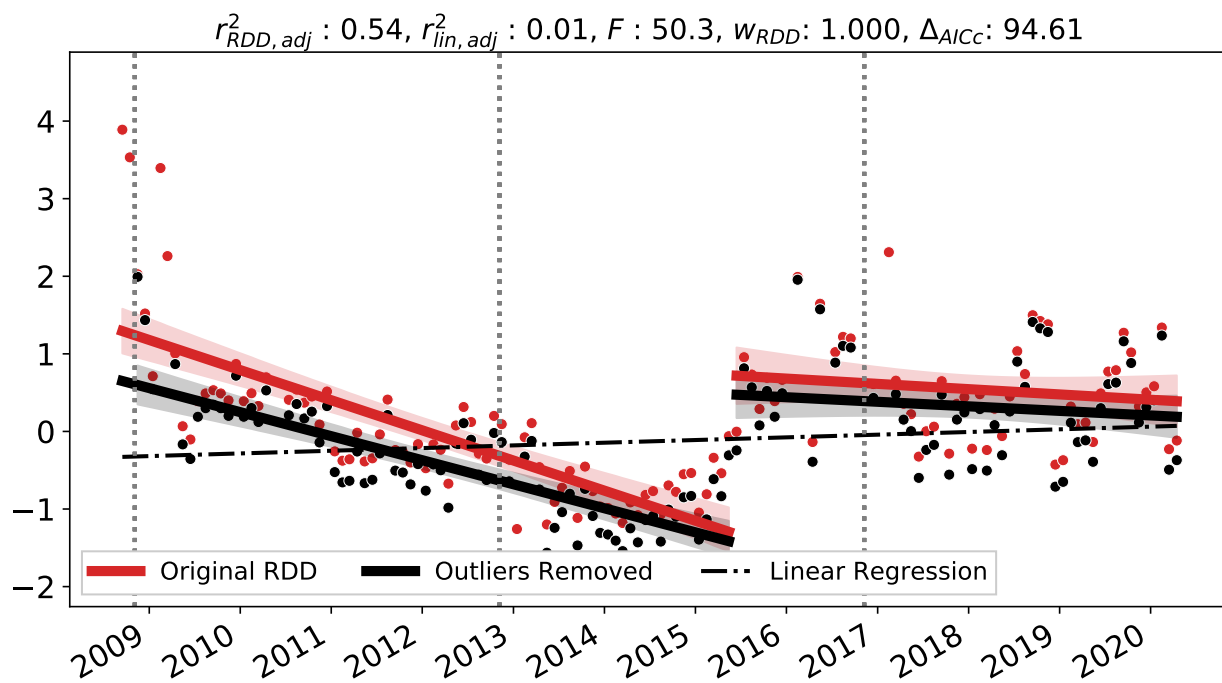


Figure 18: Swearing (empath): Quotation Aggregation (Outliers removed)

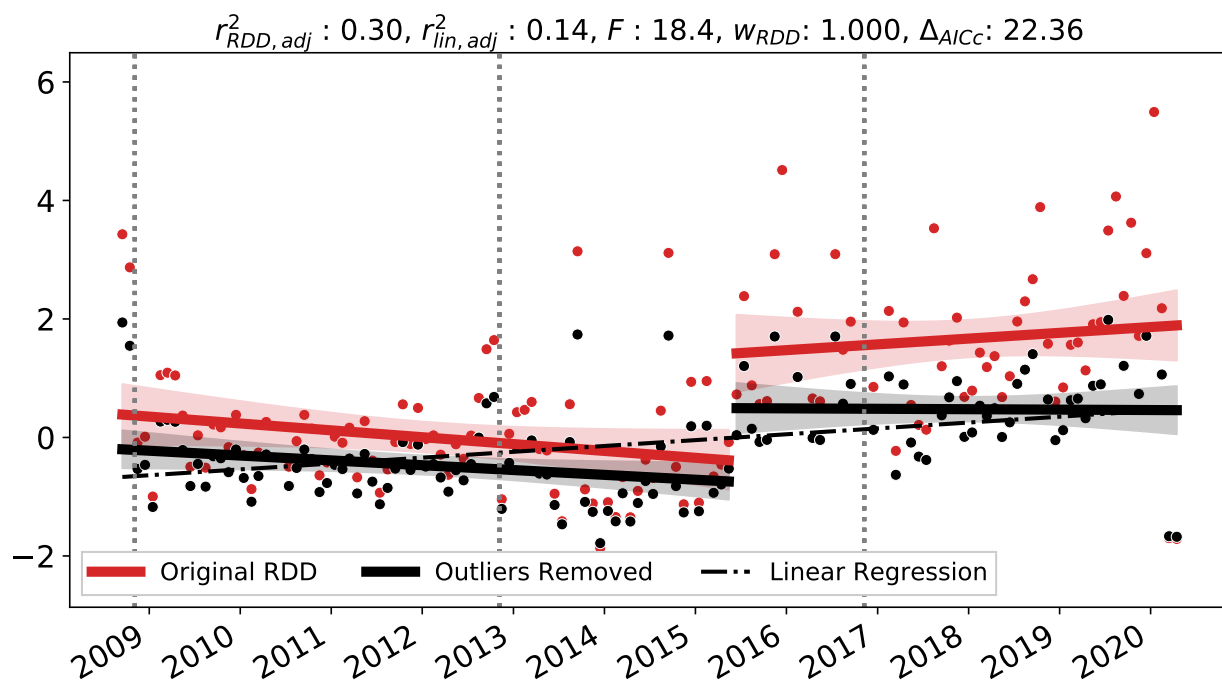


Figure 19: Anger: Quotation Aggregation (Outliers removed)

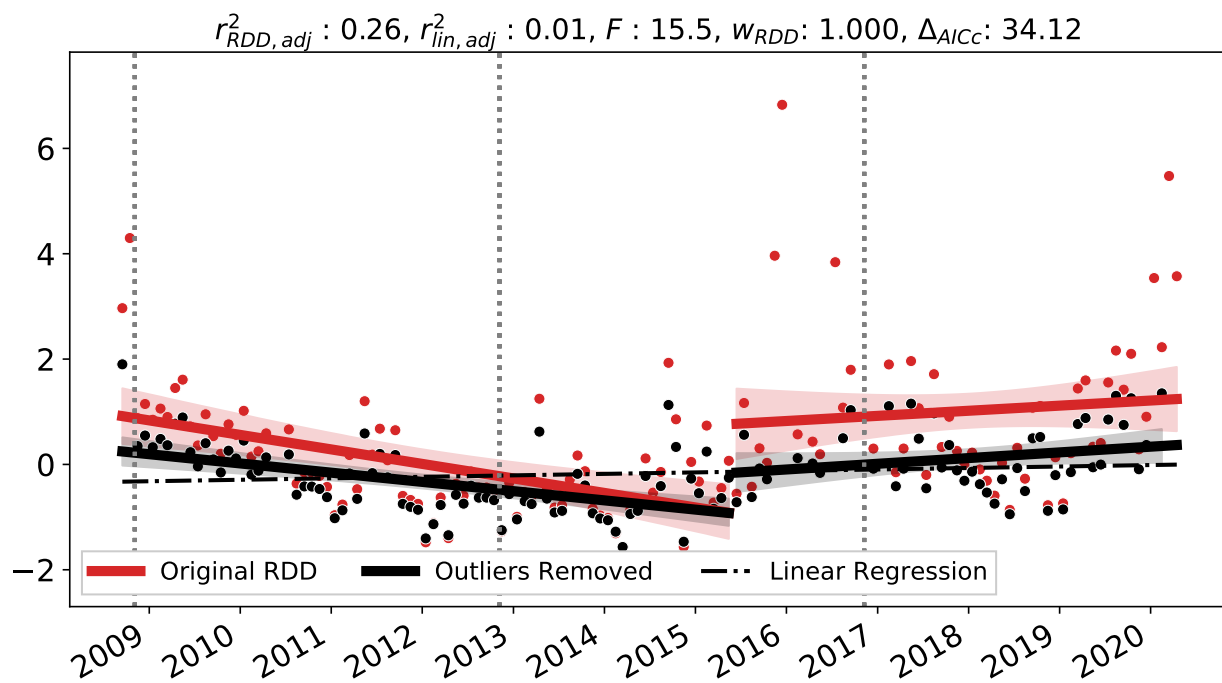


Figure 20: Anxiety: Quotation Aggregation (Outliers removed)

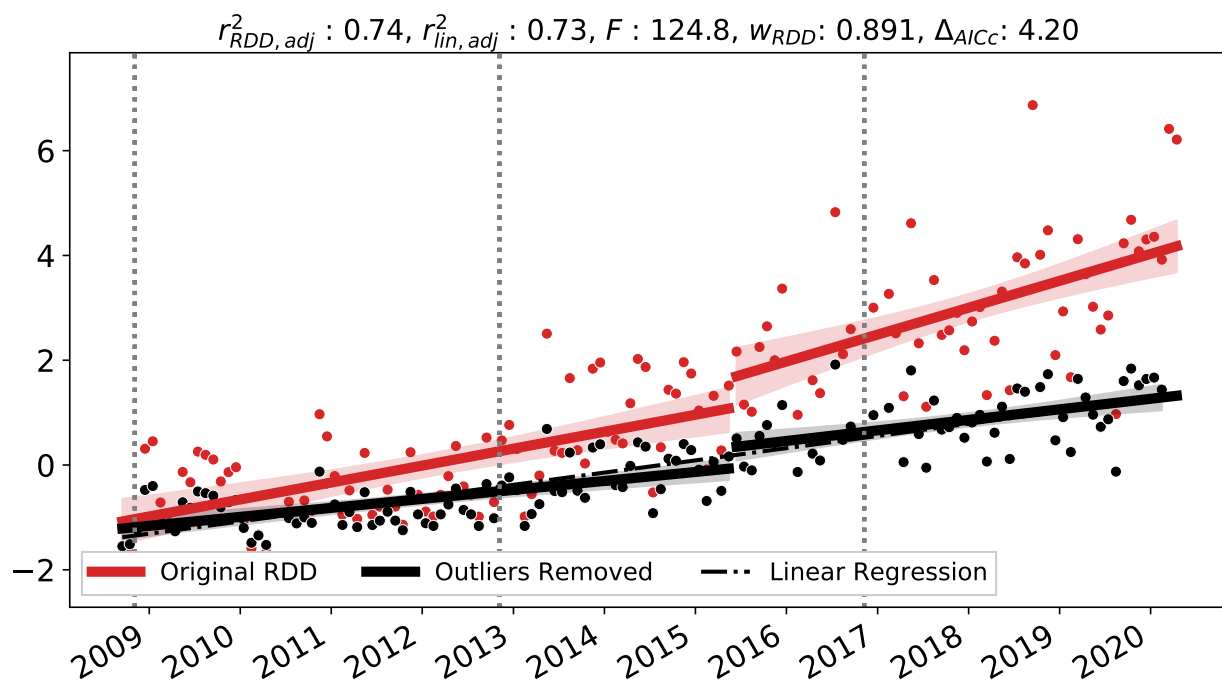


Figure 21: Certainty: Quotation Aggregation (Outliers removed)

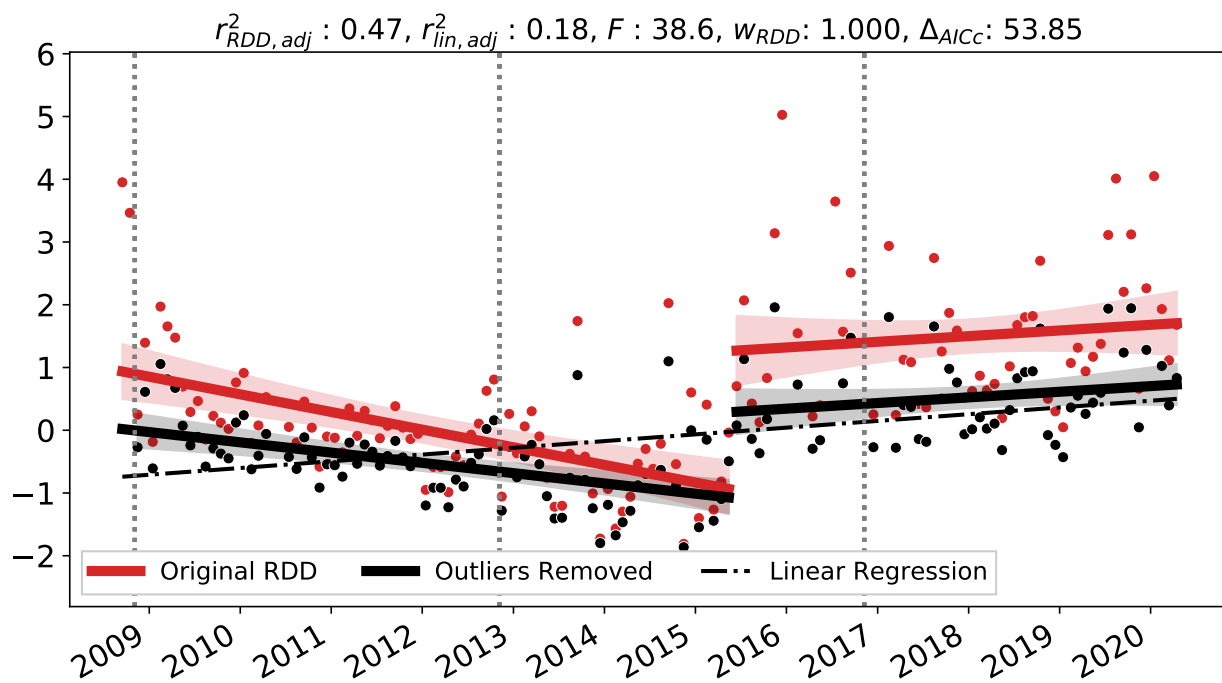


Figure 22: Negative Emotions: Quotation Aggregation (Outliers removed)

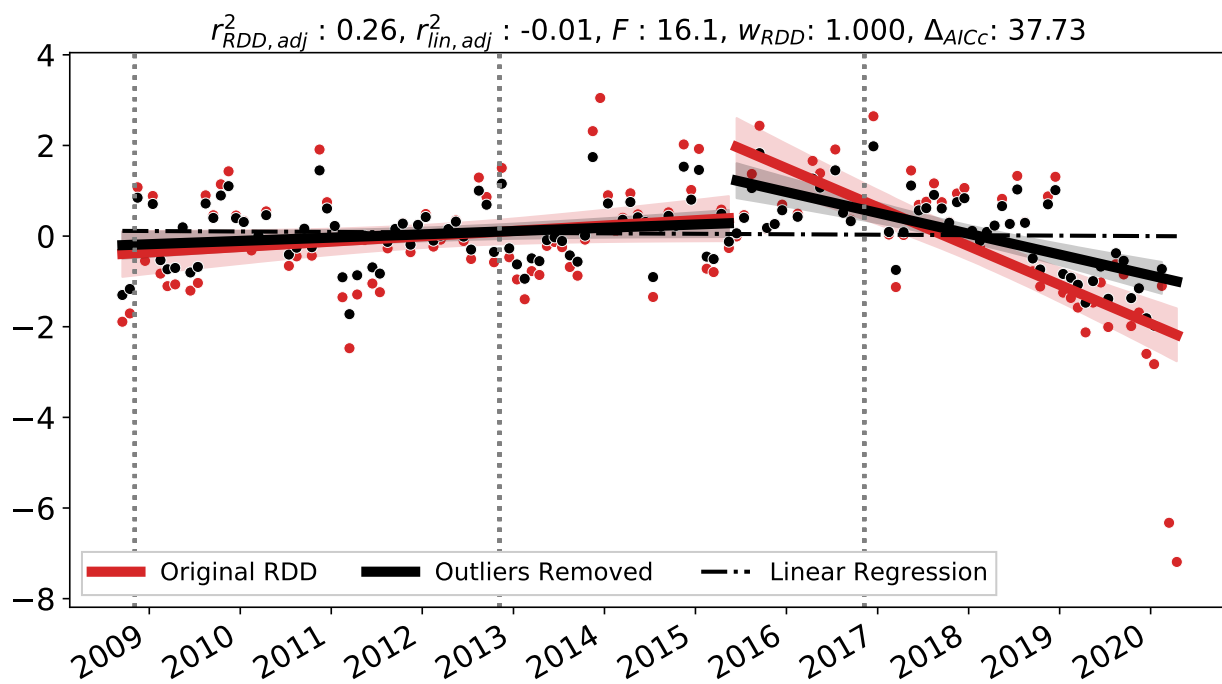


Figure 23: Positive Emotions: Quotation Aggregation (Outliers removed)

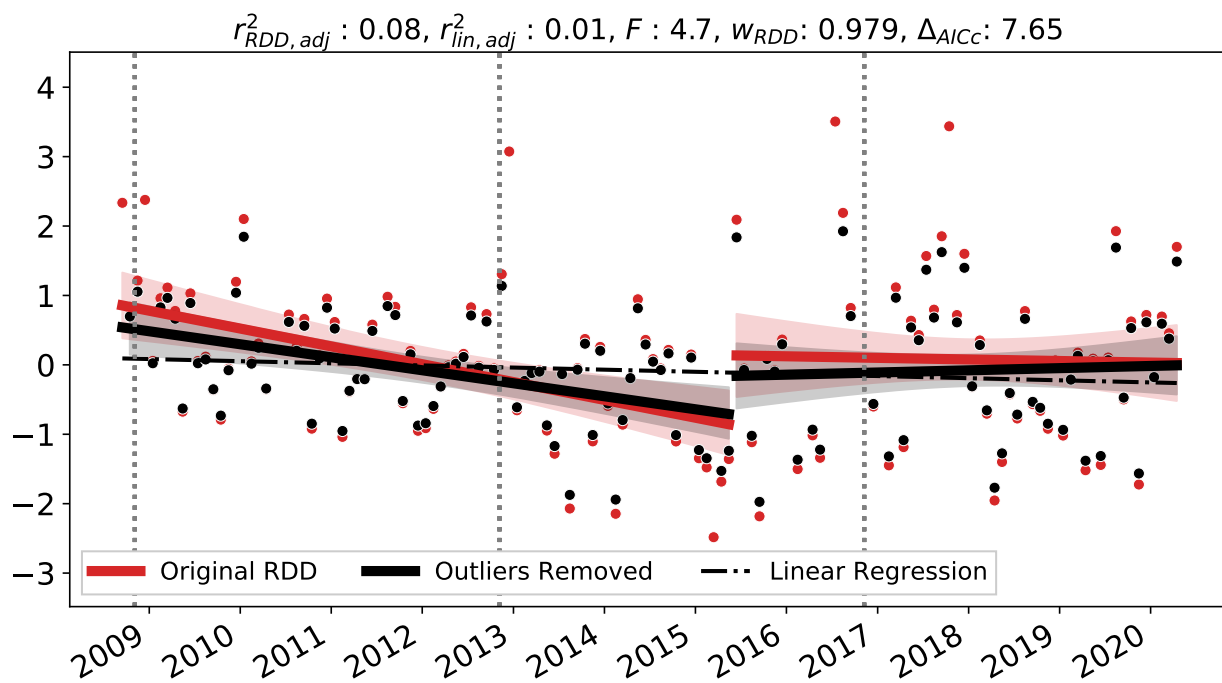


Figure 24: Sadness: Quotation Aggregation (Outliers removed)

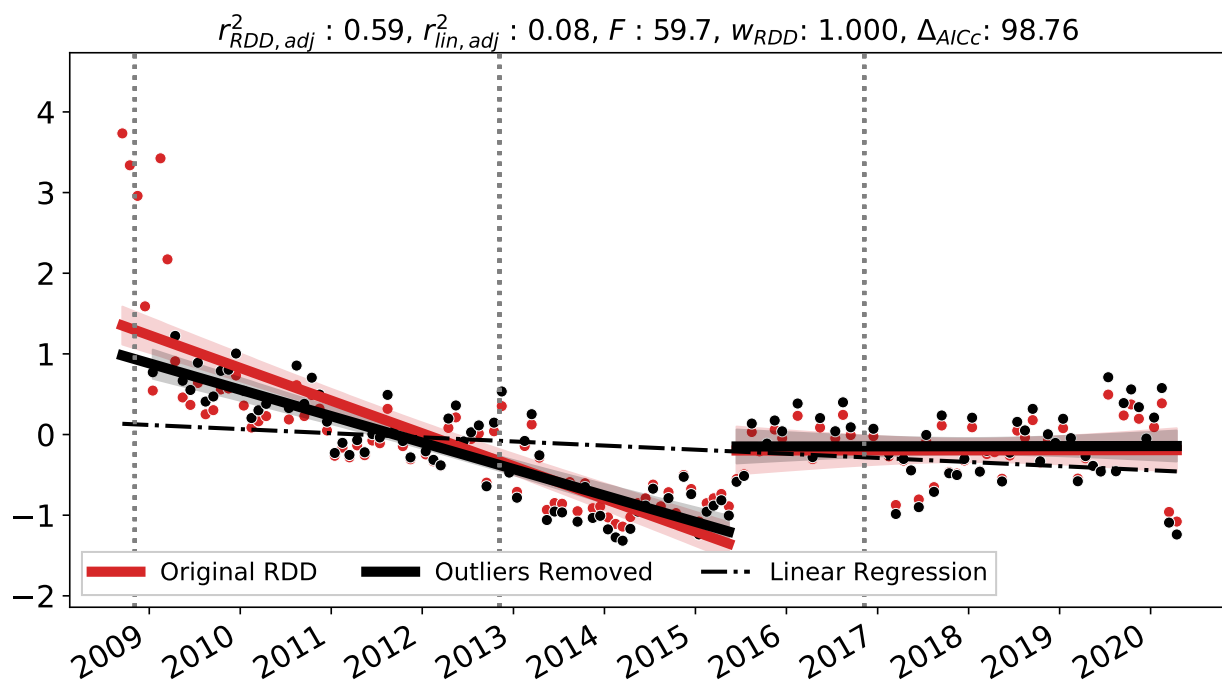


Figure 25: Swearing Terms: Quotation Aggregation (Outliers removed)

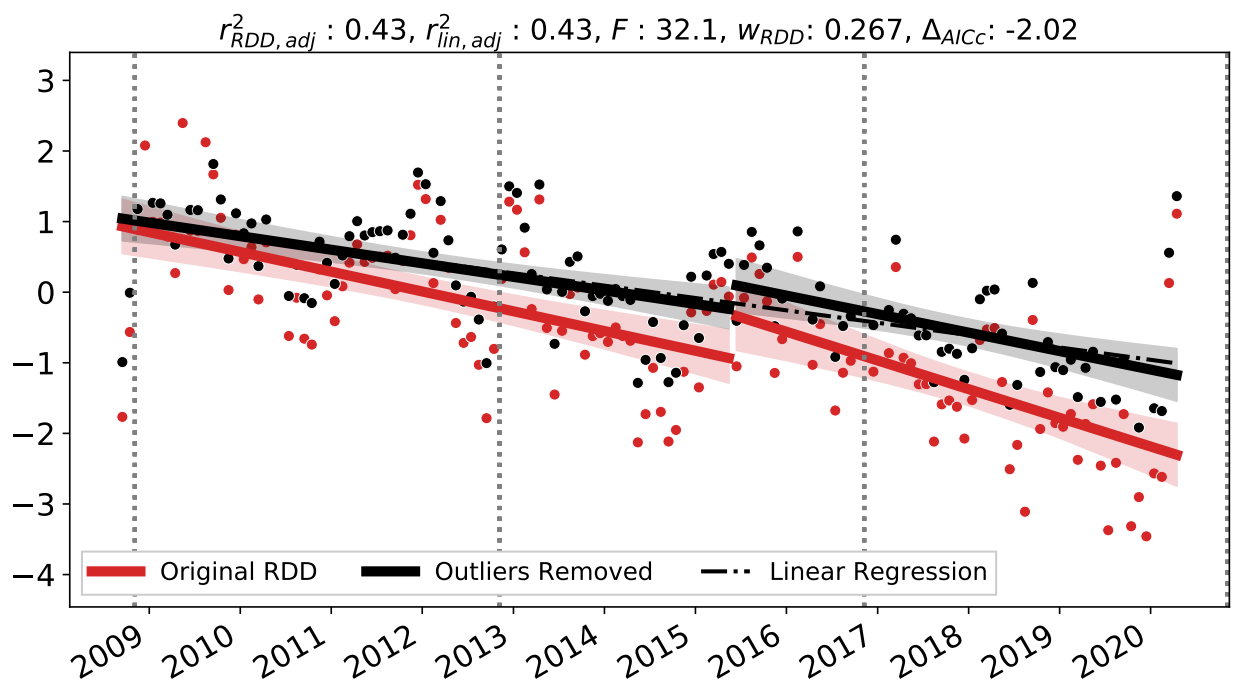


Figure 26: Tentativeness: Quotation Aggregation (Outliers removed)

1.3 Speaker Aggregation

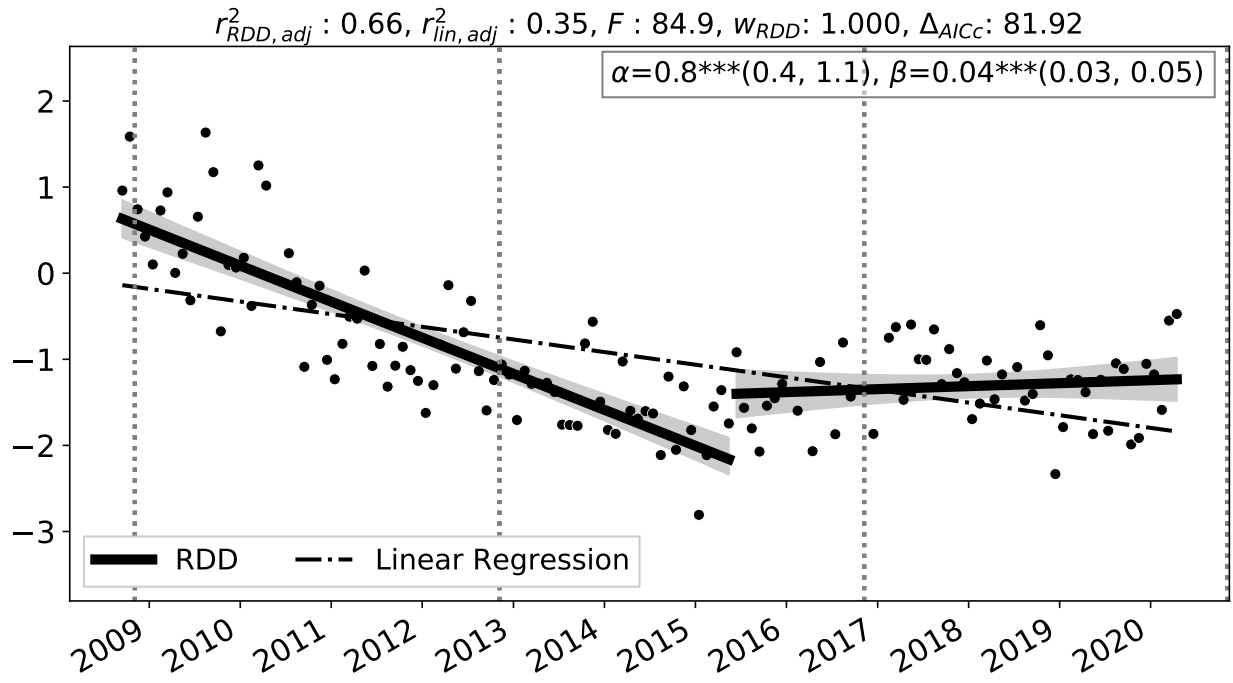


Figure 27: Neg. Emotion (empath): Speaker Aggregation

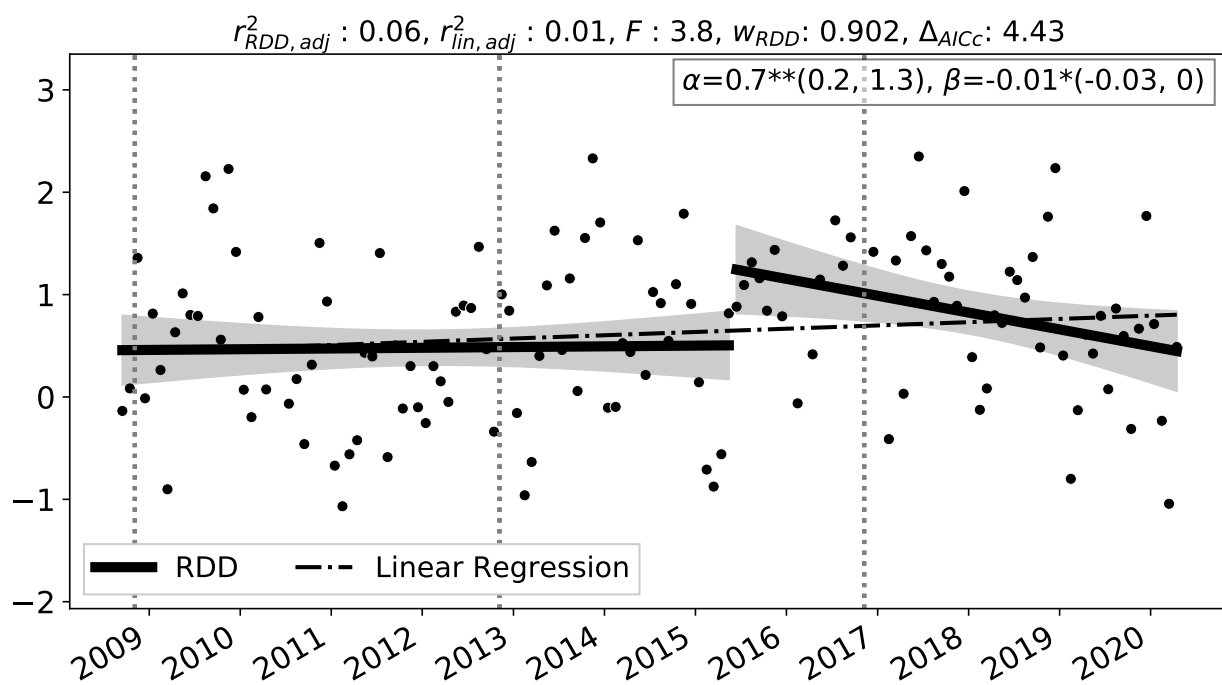


Figure 28: Pos. Emotion (empathy): Speaker Aggregation

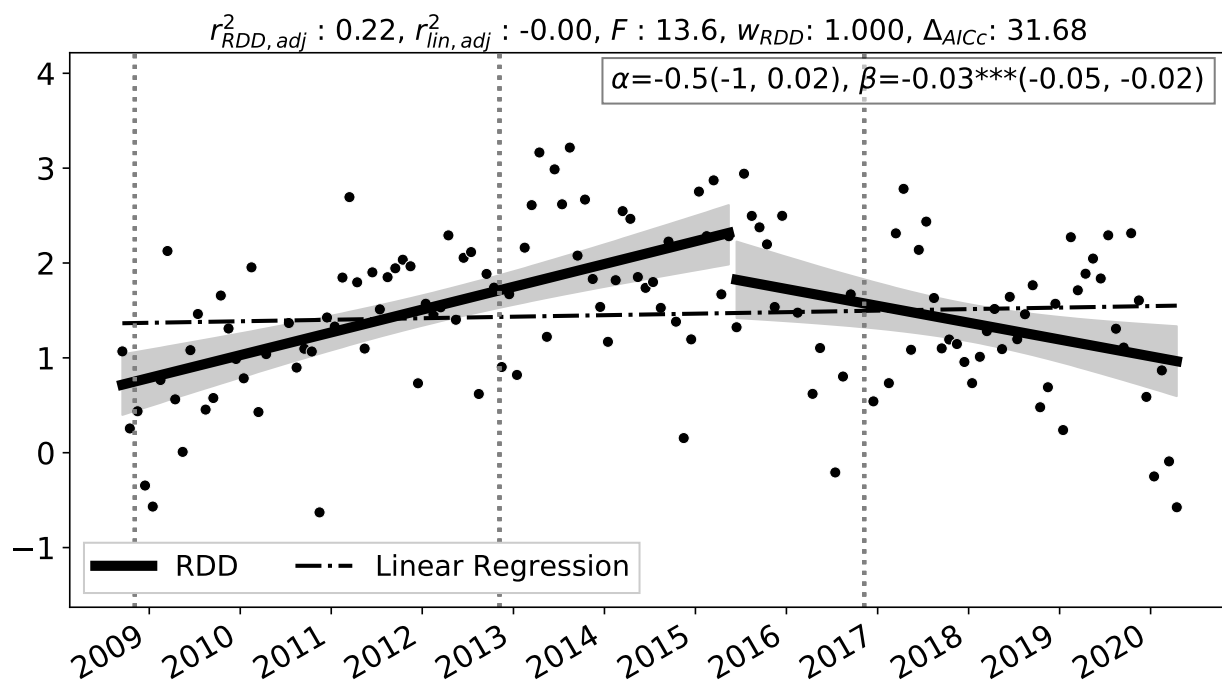


Figure 29: Science (empathy): Speaker Aggregation

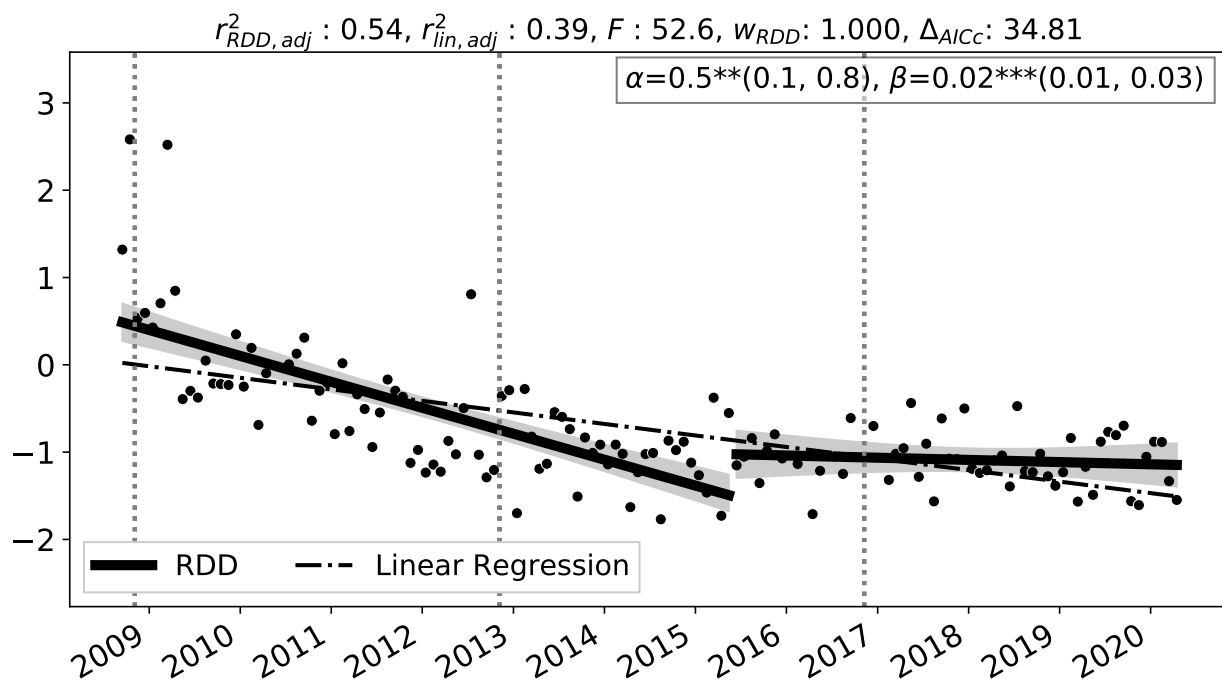


Figure 30: Swearing (empath): Speaker Aggregation

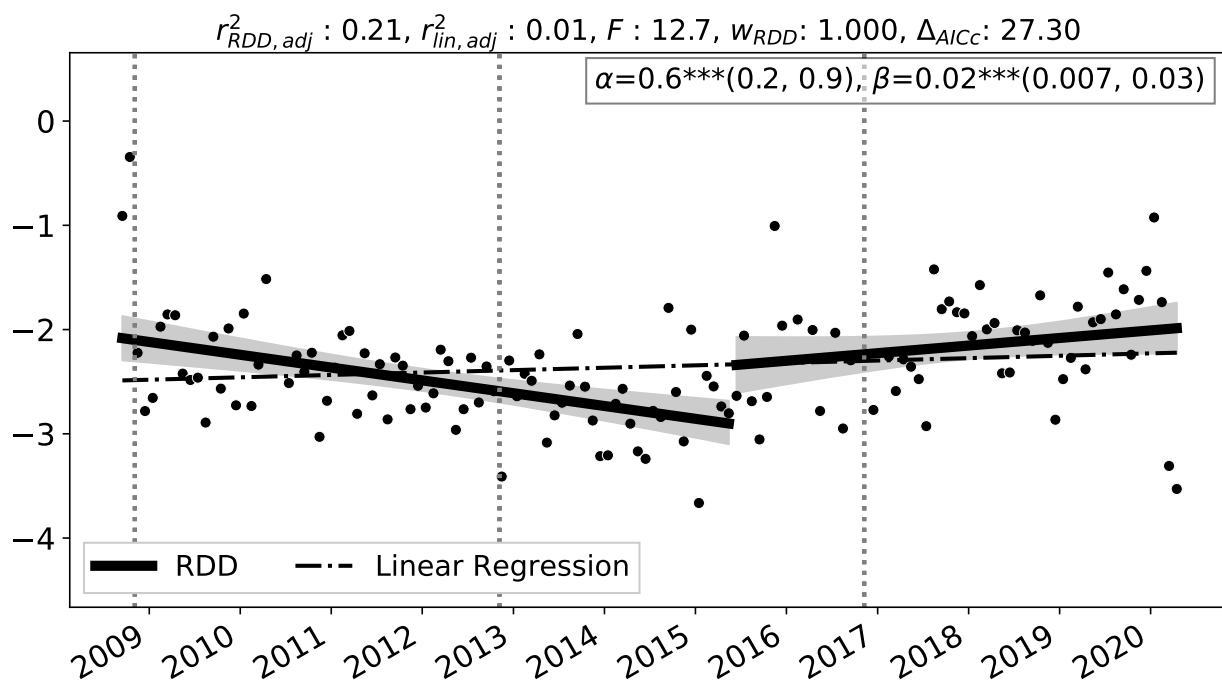


Figure 31: Anger: Speaker Aggregation

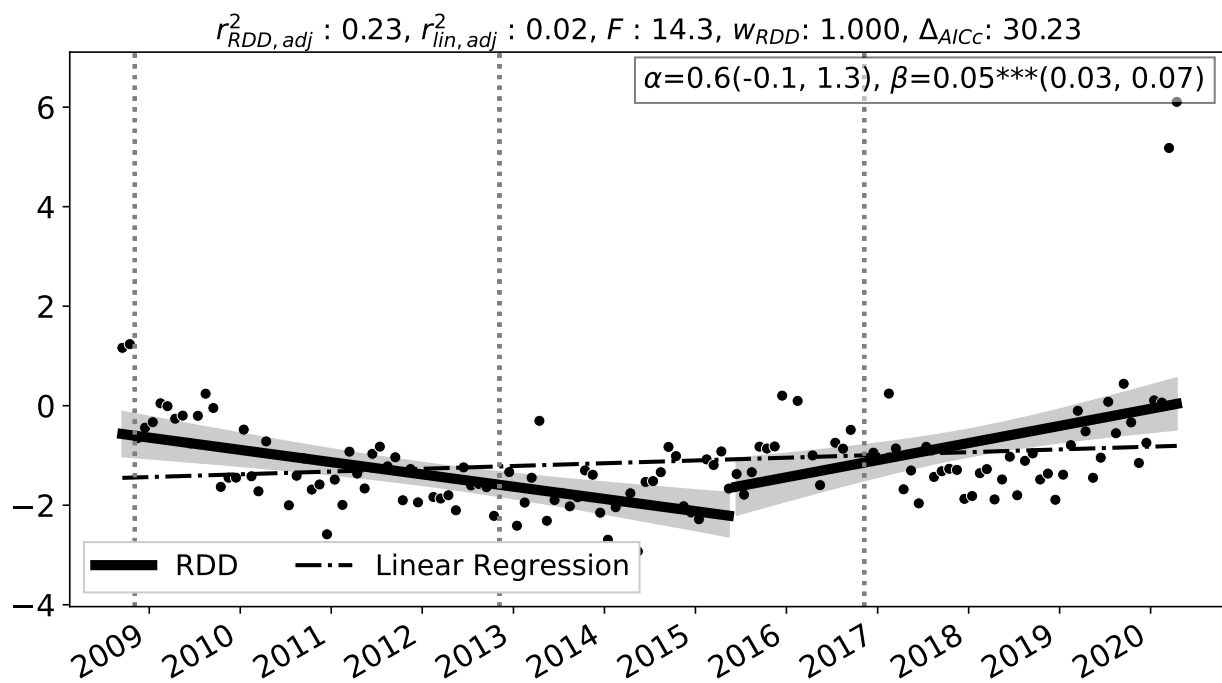


Figure 32: Anxiety: Speaker Aggregation

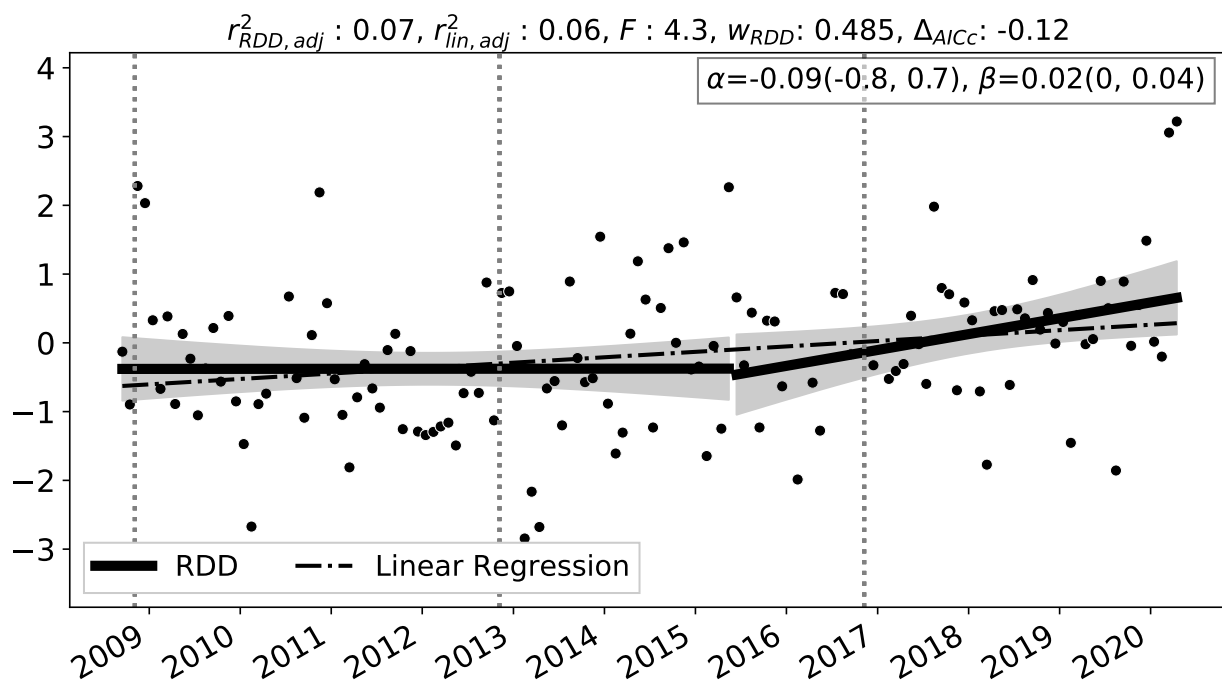


Figure 33: Certainty: Speaker Aggregation

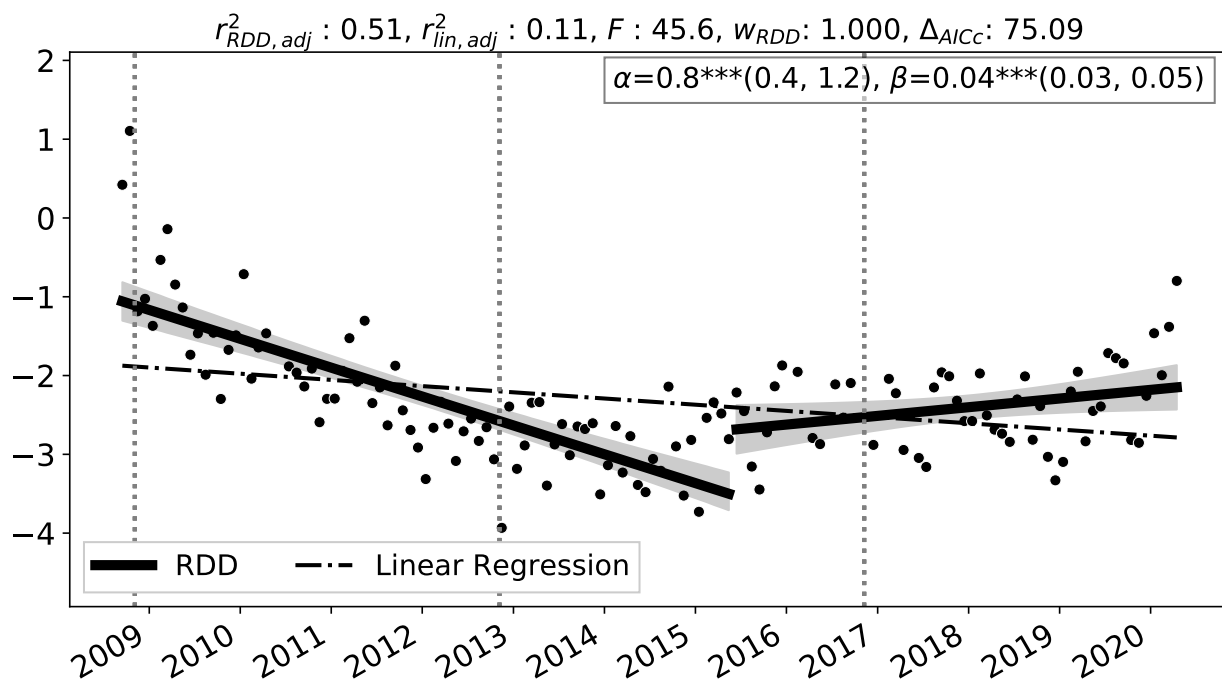


Figure 34: Negative Emotions: Speaker Aggregation

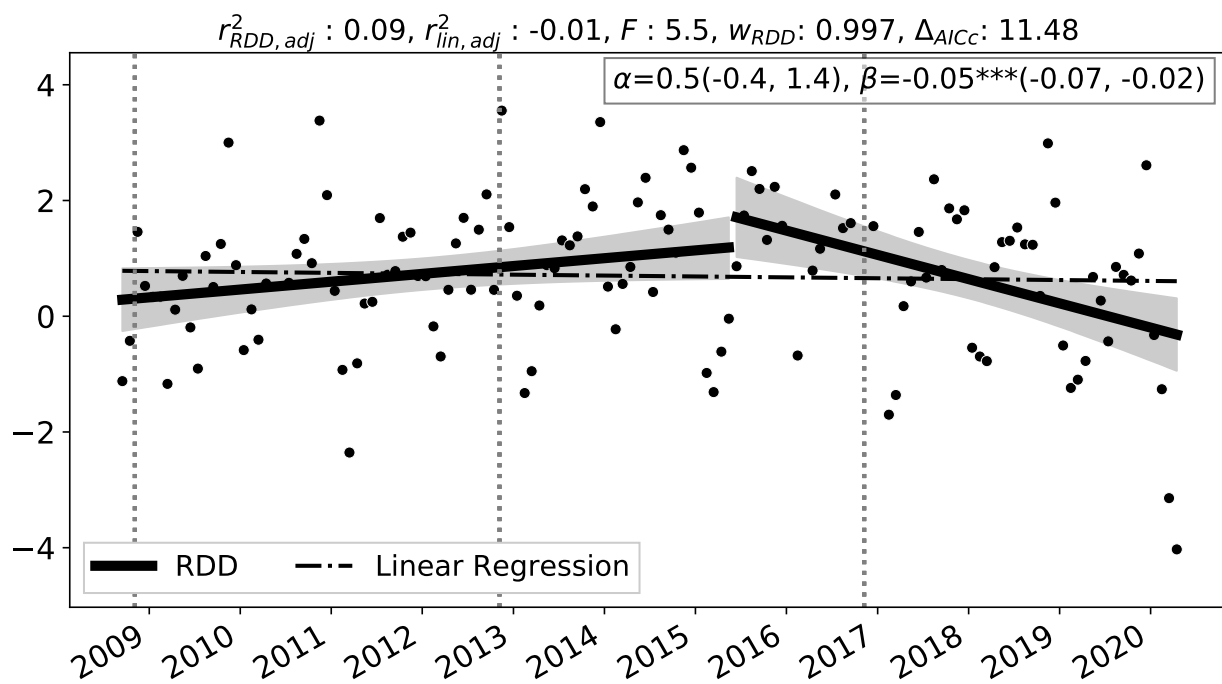


Figure 35: Positive Emotions: Speaker Aggregation

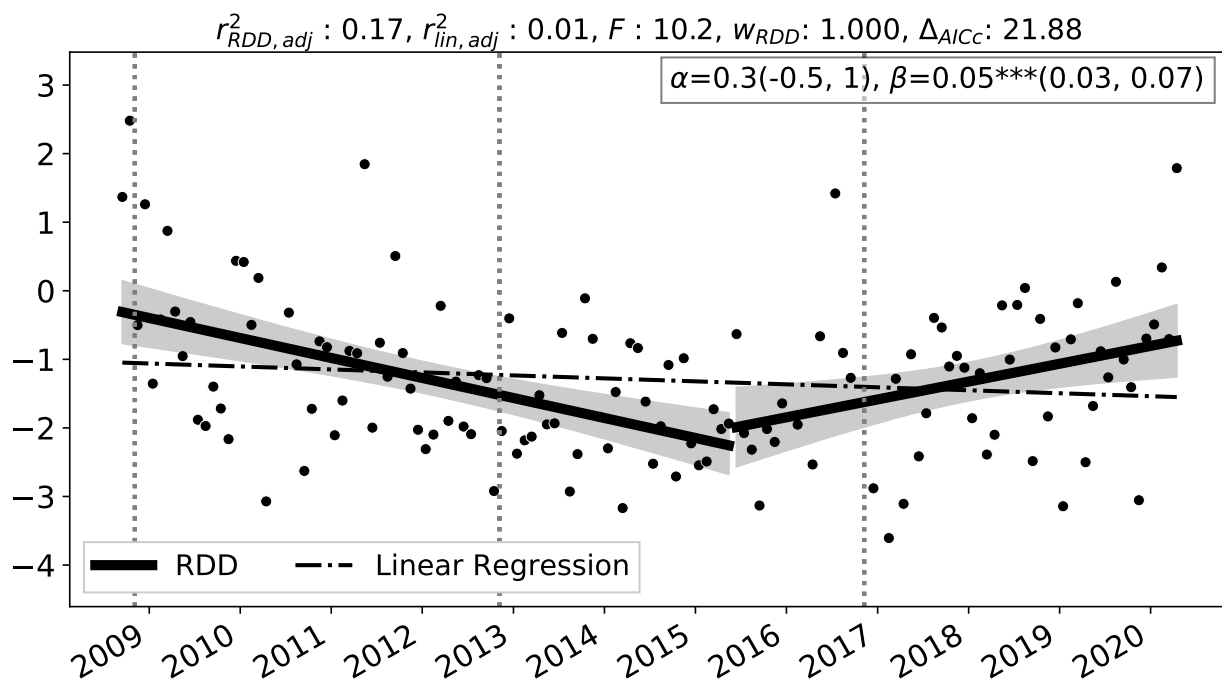


Figure 36: Sadness: Speaker Aggregation

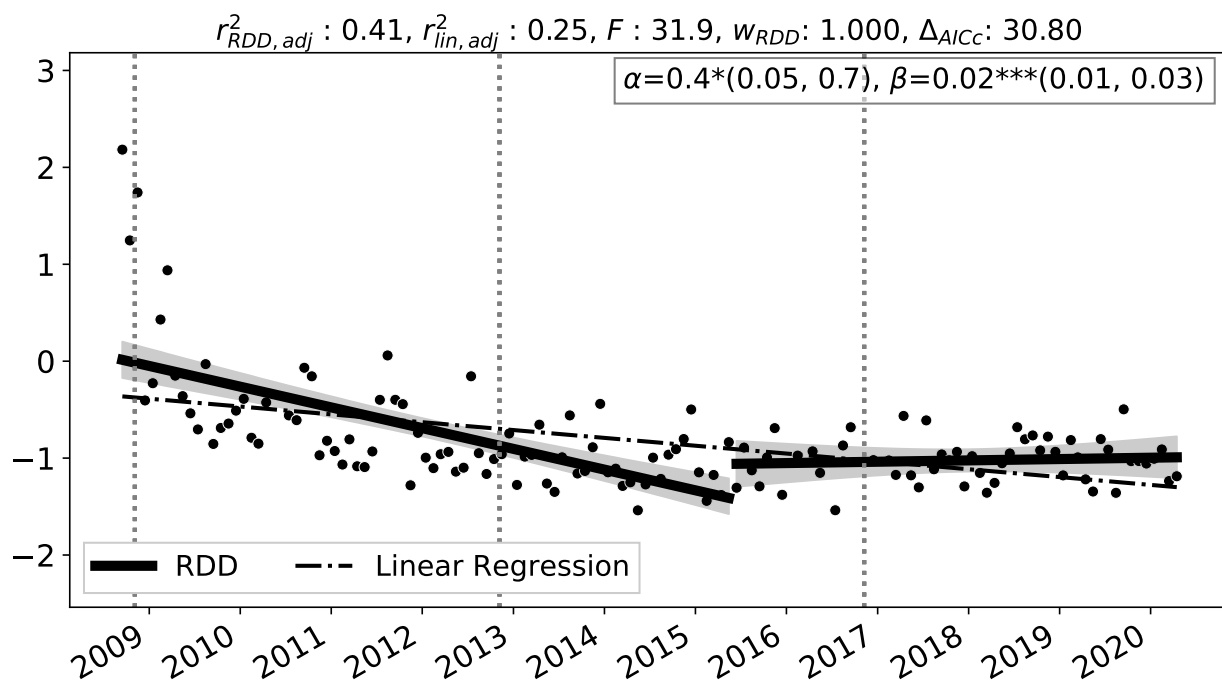


Figure 37: Swearing Terms: Speaker Aggregation

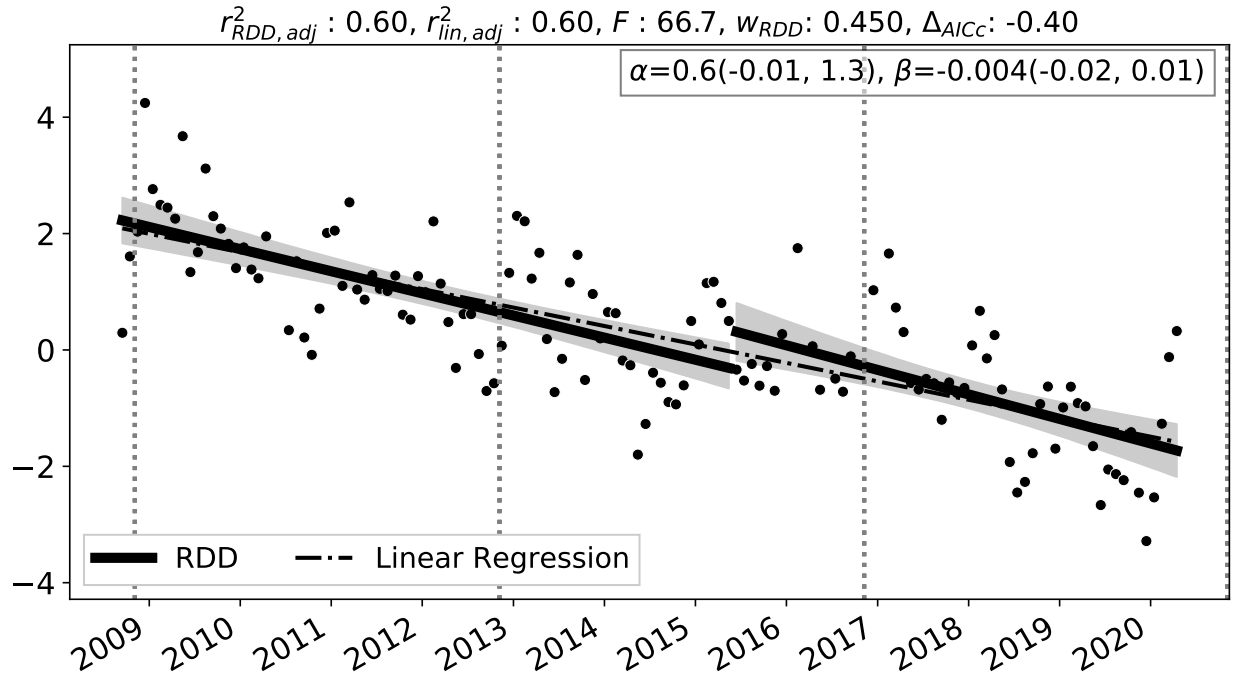


Figure 38: Tentativeness: Speaker Aggregation

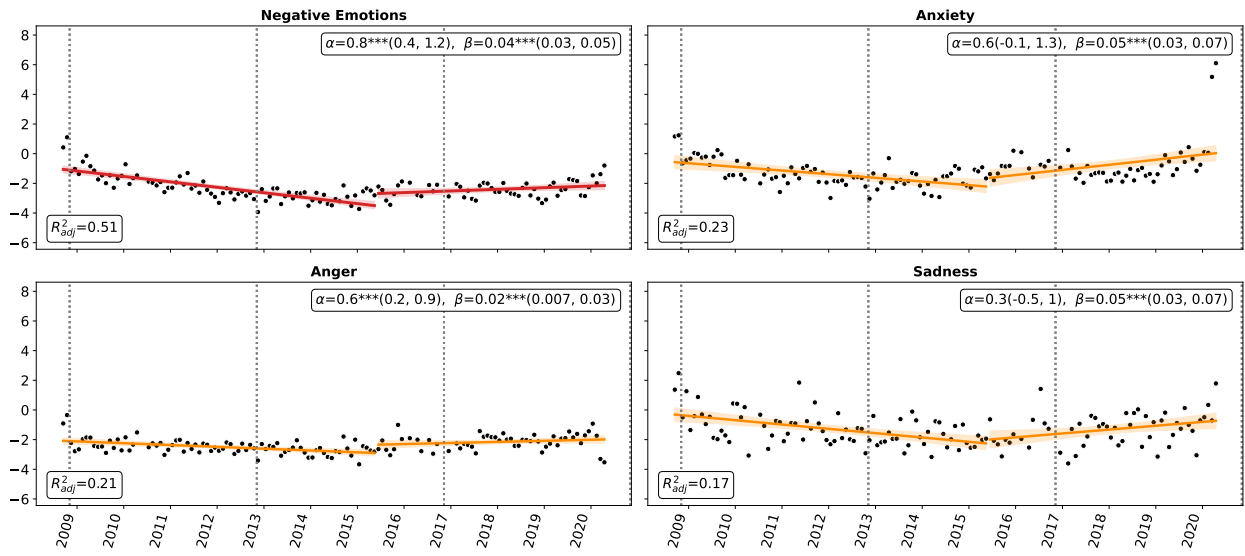


Figure 39: Negative Emotions: Speaker Aggregation

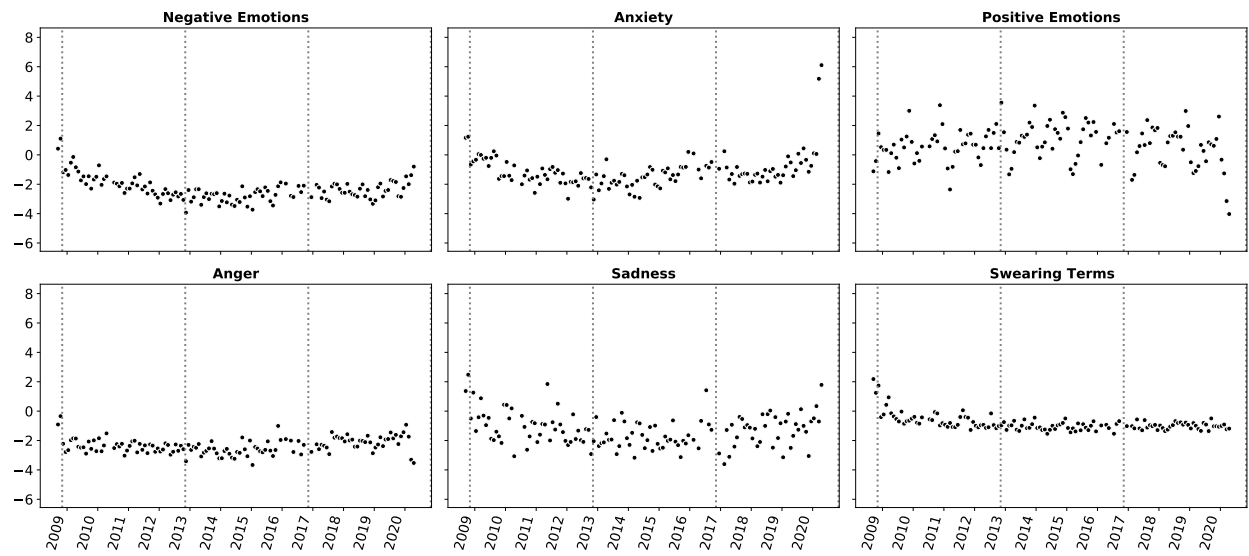


Figure 40: Raw Sentiment Scores: Speaker Aggregation

1.4 Speaker Aggregation, Excluding Outliers

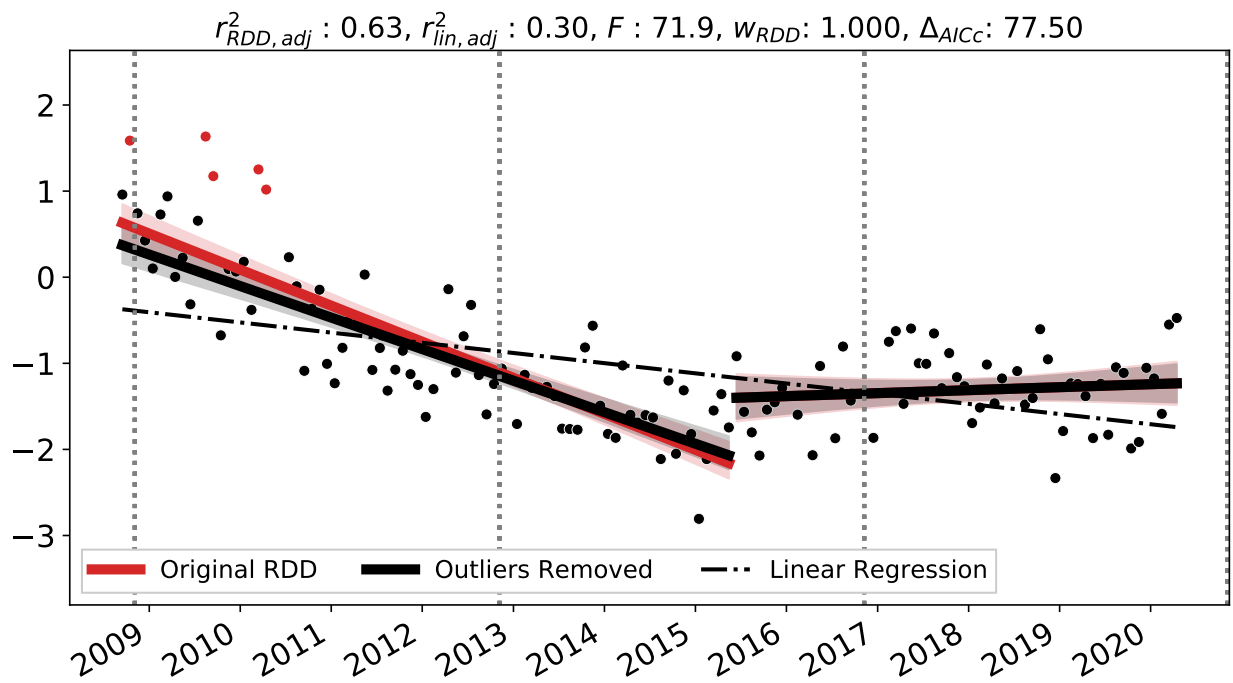


Figure 41: Neg. Emotion (empath): Speaker Aggregation (Outliers removed)

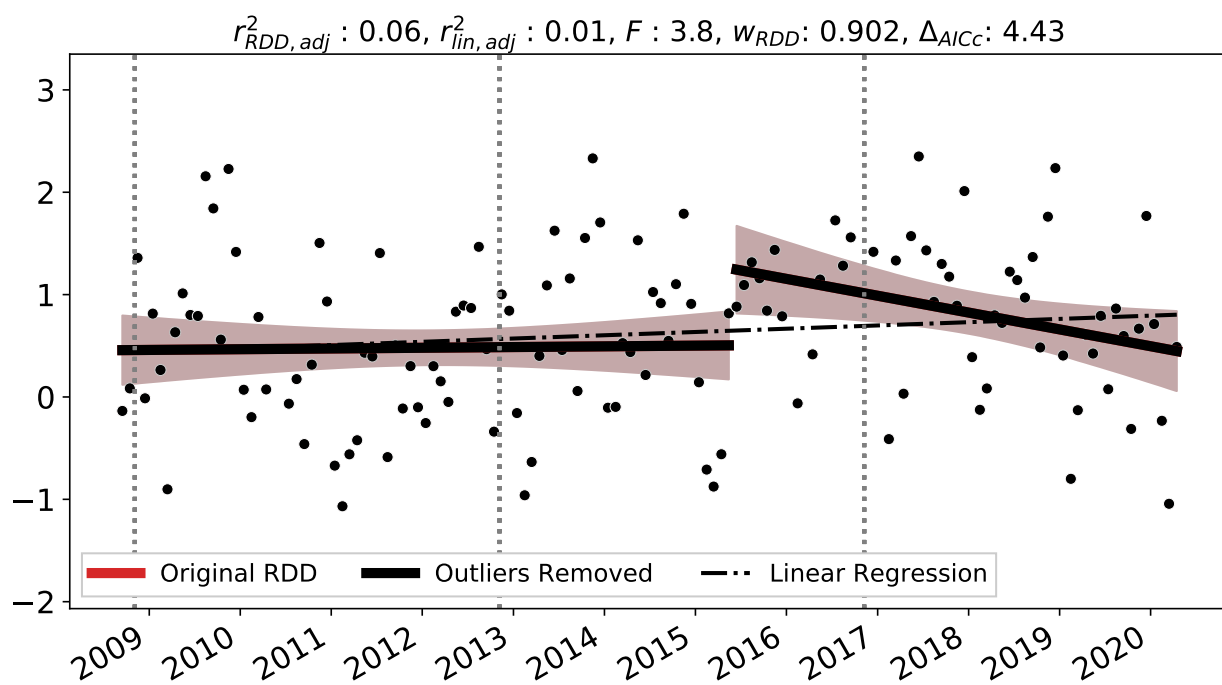


Figure 42: Pos. Emotion (empathy): Speaker Aggregation (Outliers removed)

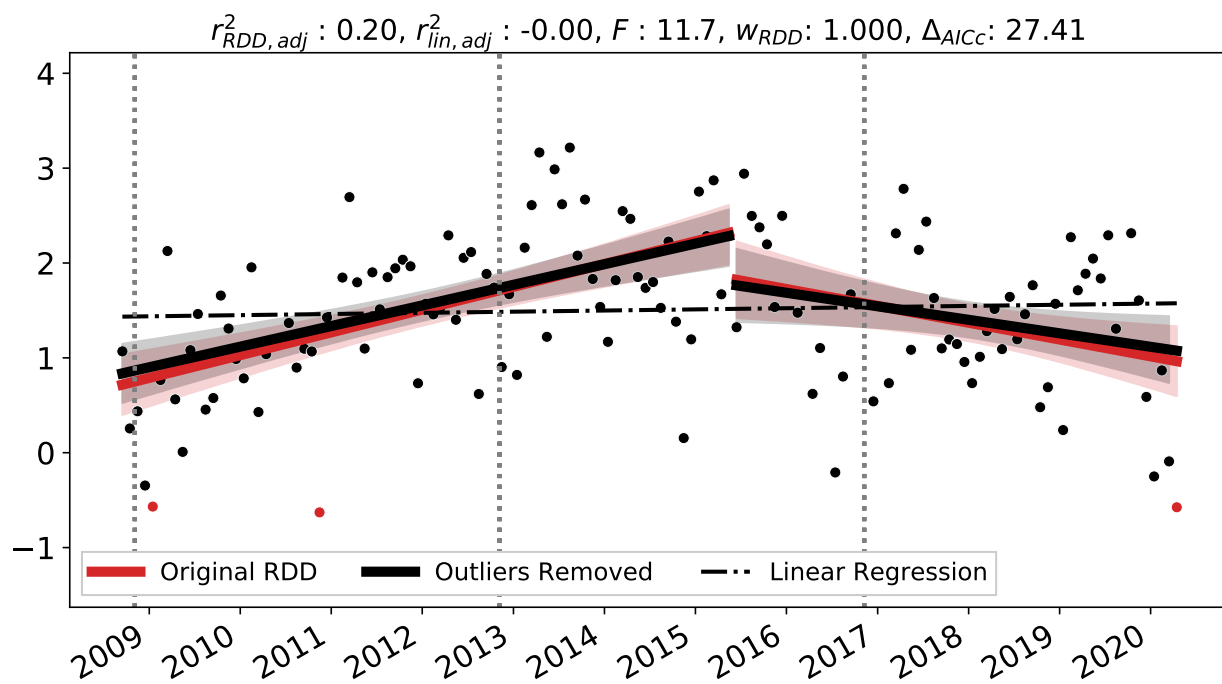


Figure 43: Science (empathy): Speaker Aggregation (Outliers removed)

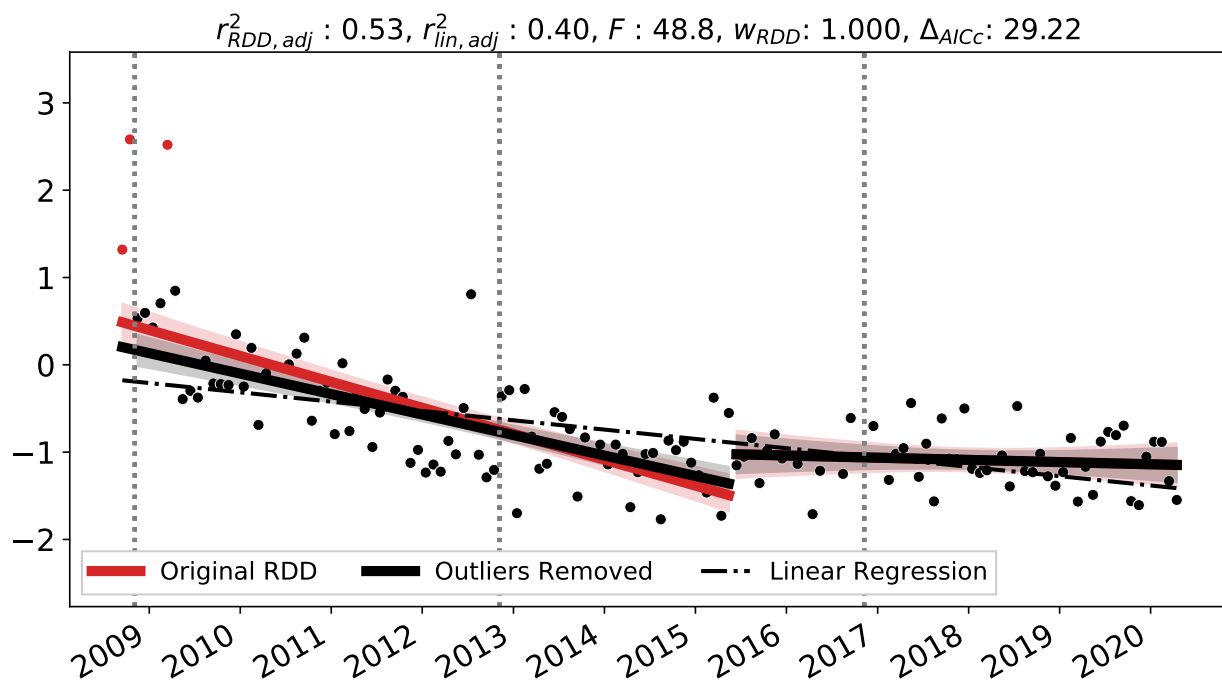


Figure 44: Swearing (empathy): Speaker Aggregation (Outliers removed)

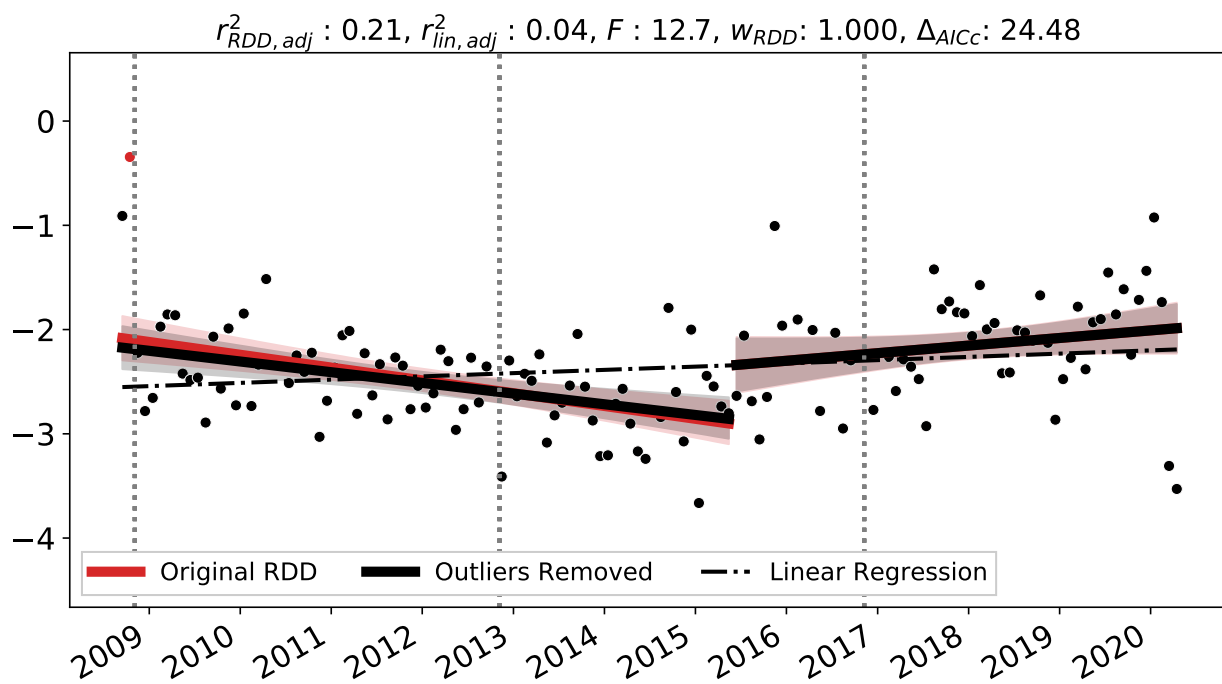


Figure 45: Anger: Speaker Aggregation (Outliers removed)

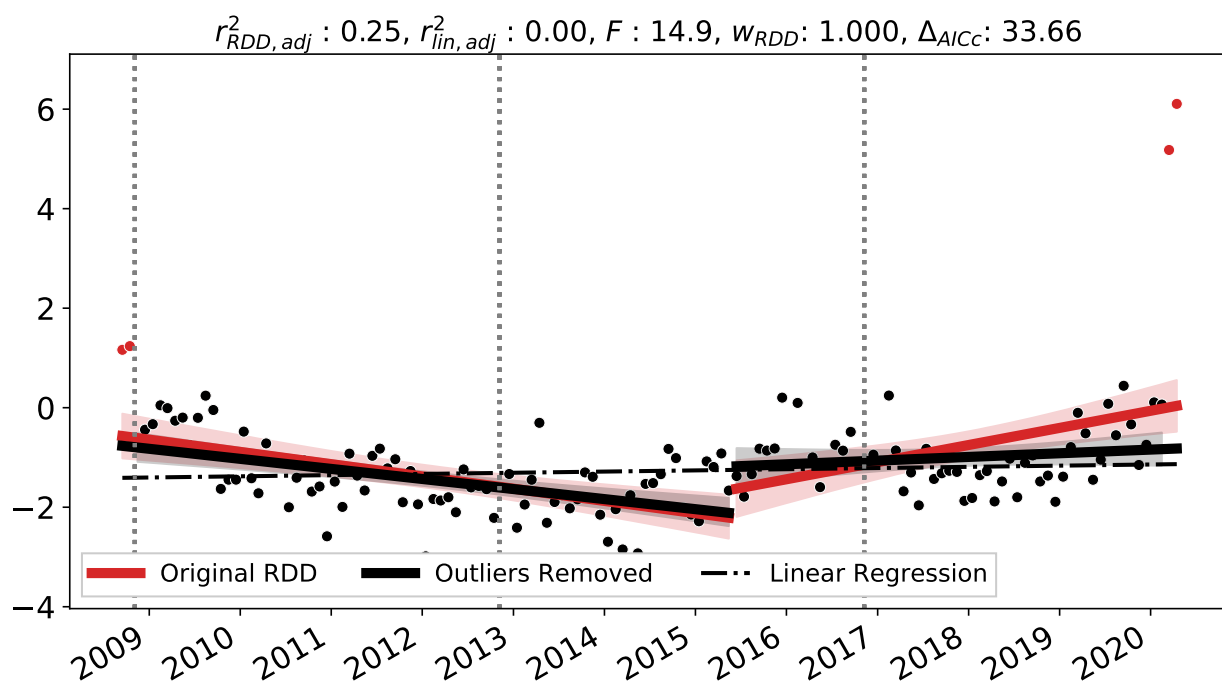


Figure 46: Anxiety: Speaker Aggregation (Outliers removed)

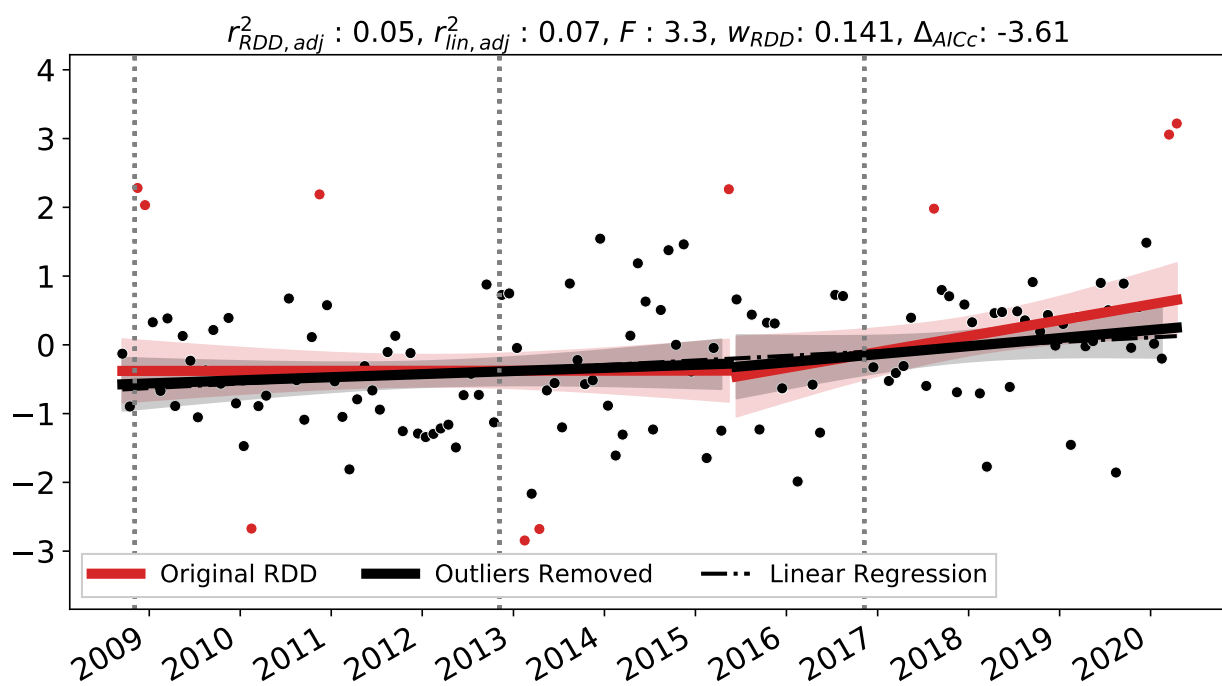


Figure 47: Certainty: Speaker Aggregation (Outliers removed)

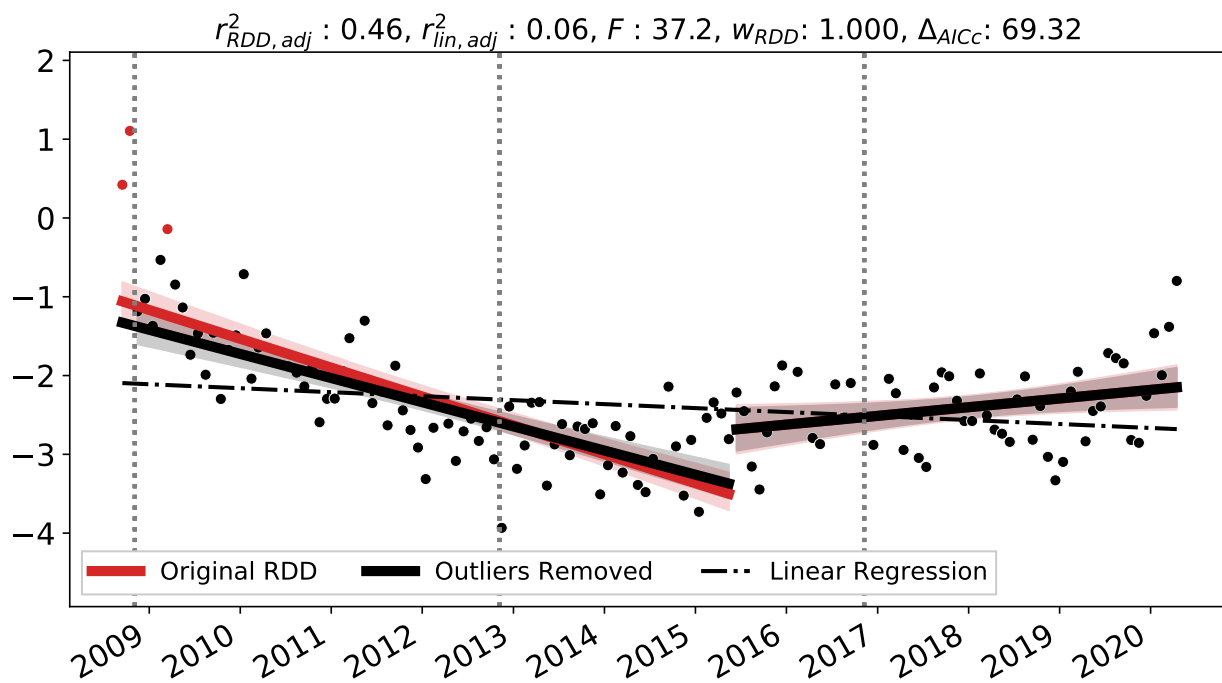


Figure 48: Negative Emotions: Speaker Aggregation (Outliers removed)

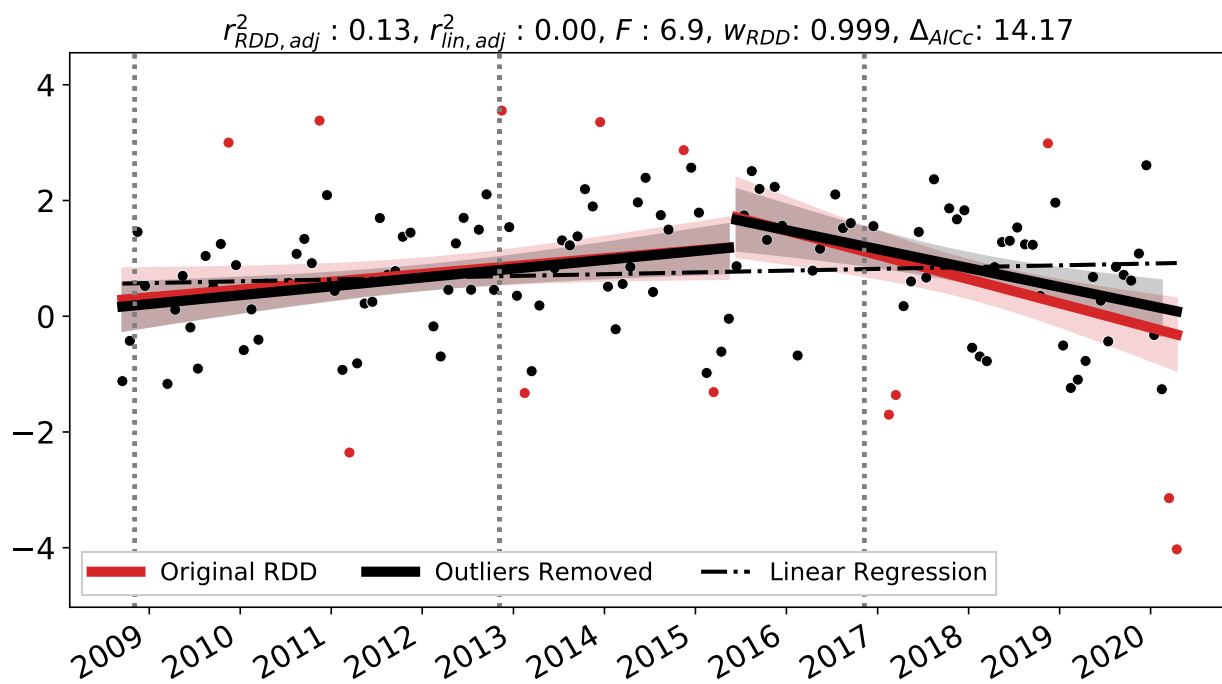


Figure 49: Positive Emotions: Speaker Aggregation (Outliers removed)

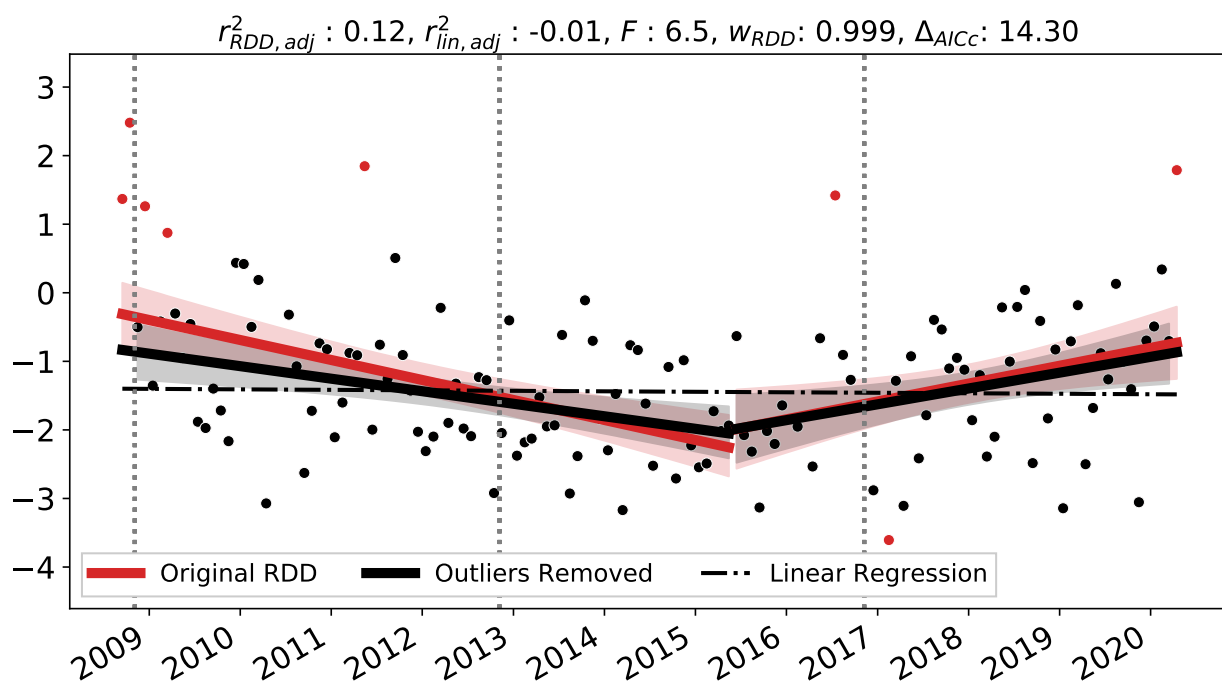


Figure 50: Sadness: Speaker Aggregation (Outliers removed)

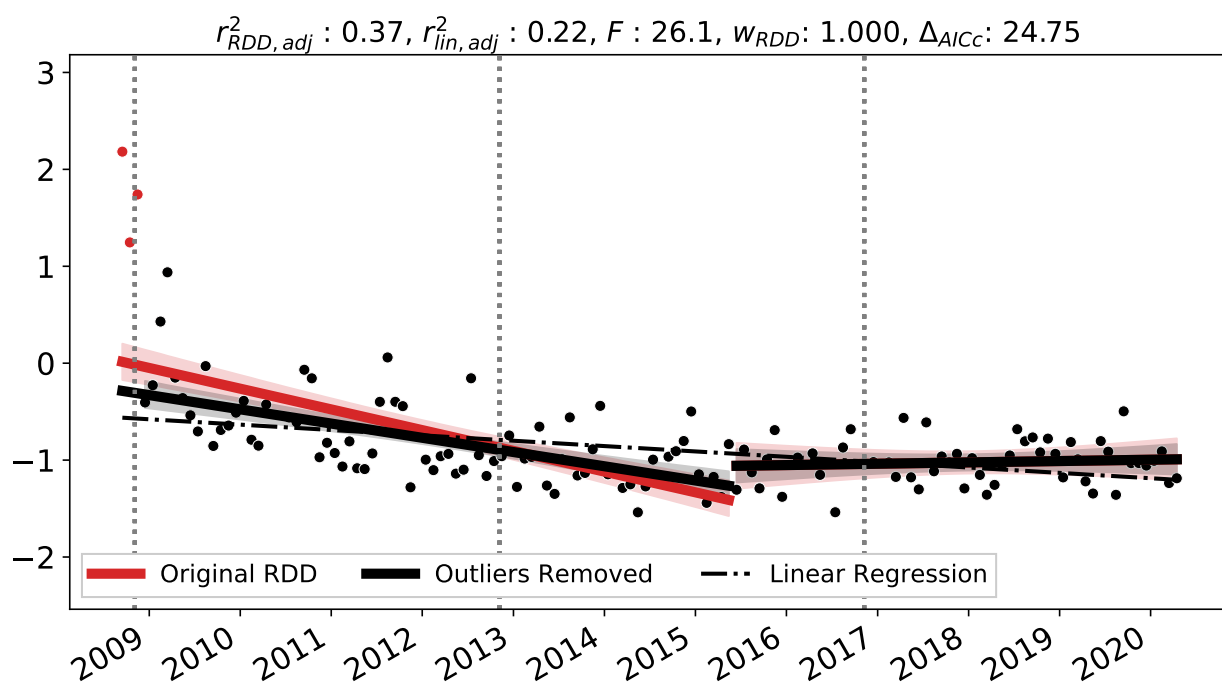


Figure 51: Swearing Terms: Speaker Aggregation (Outliers removed)

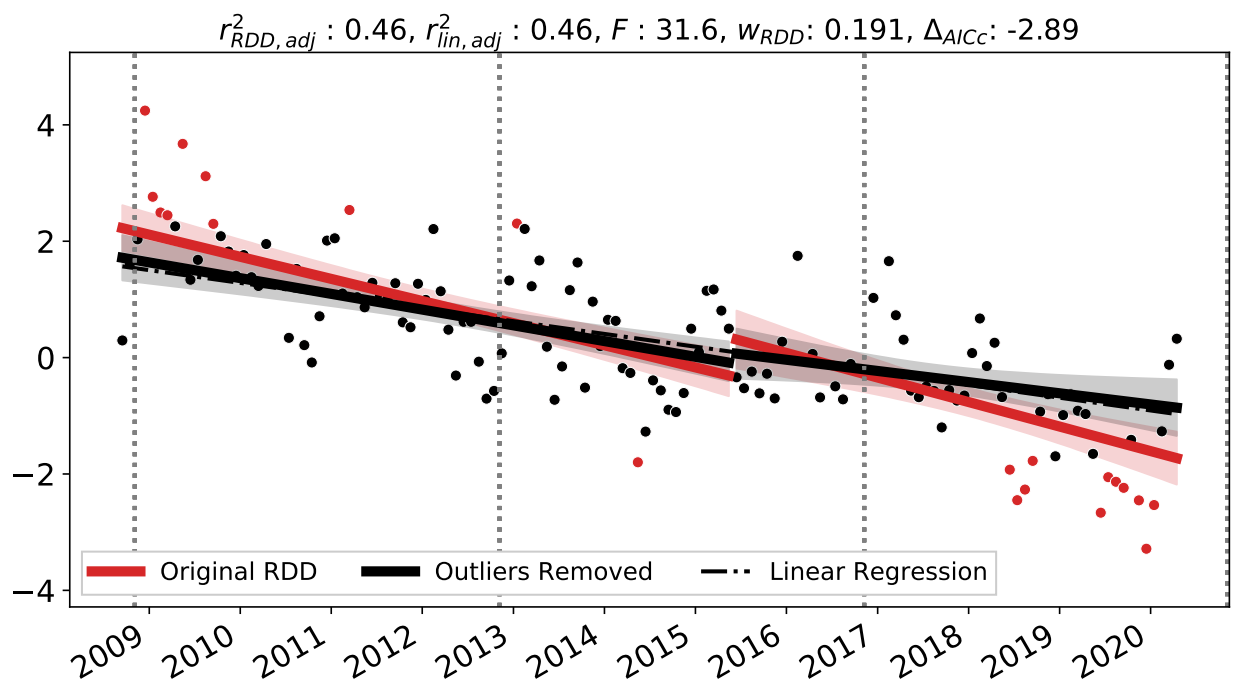


Figure 52: Tentativeness: Speaker Aggregation (Outliers removed)

1.5 Verbosity Quartiles, Speaker Aggregation

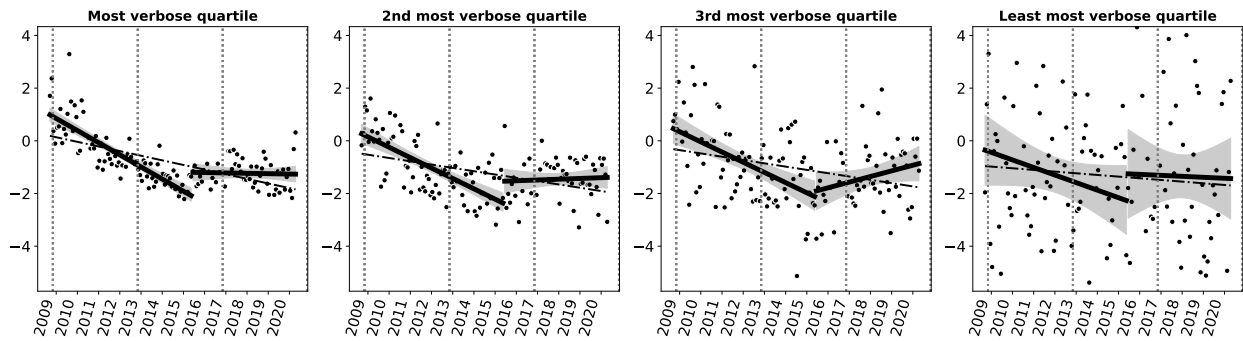


Figure 53: Neg. Emotion (empath): Speaker Aggregation with Speakers Divided in Verbosity Quartiles

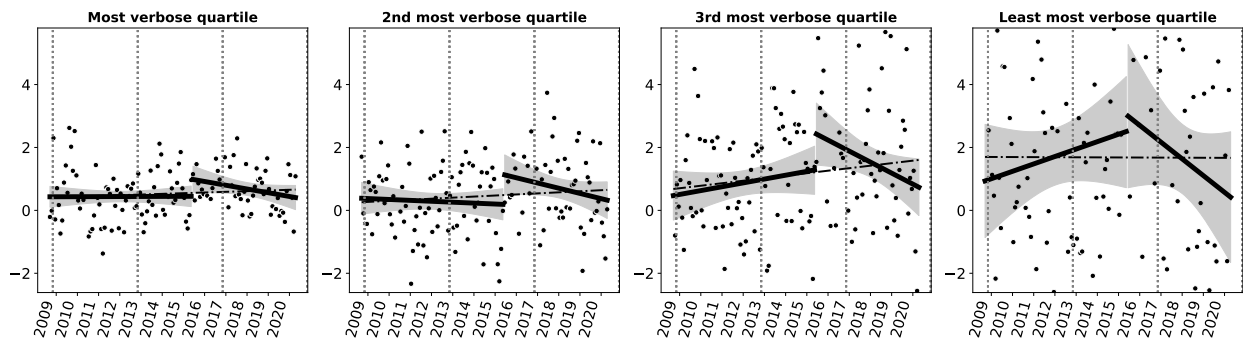


Figure 54: Pos. Emotion (empath): Speaker Aggregation with Speakers Divided in Verbosity Quartiles

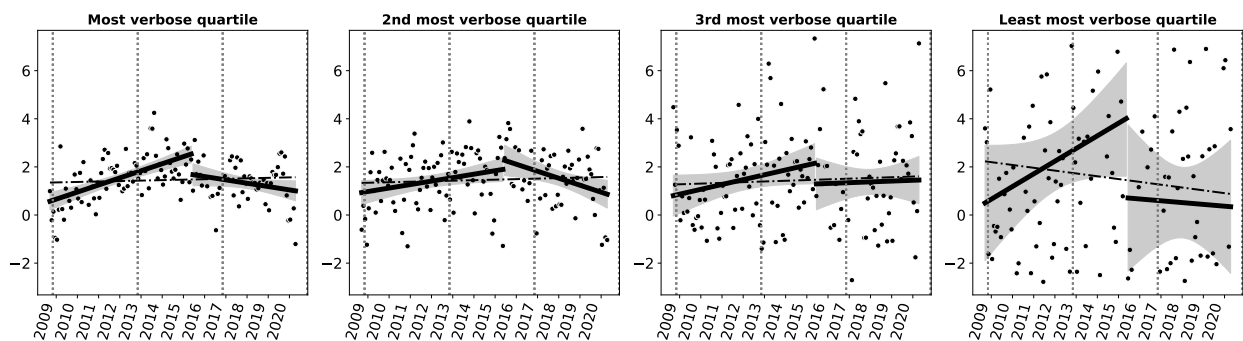


Figure 55: Science (empath): Speaker Aggregation with Speakers Divided in Verbosity Quartiles

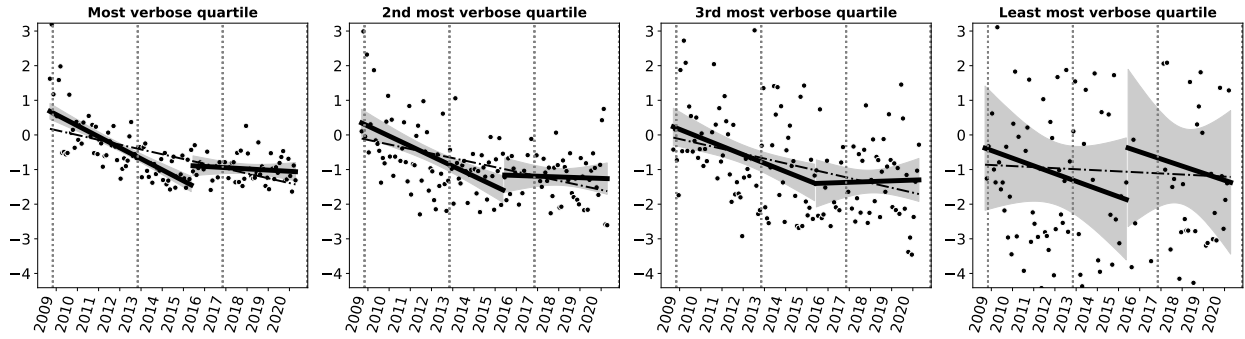


Figure 56: Swearing (empath): Speaker Aggregation with Speakers Divided in Verbosity Quartiles

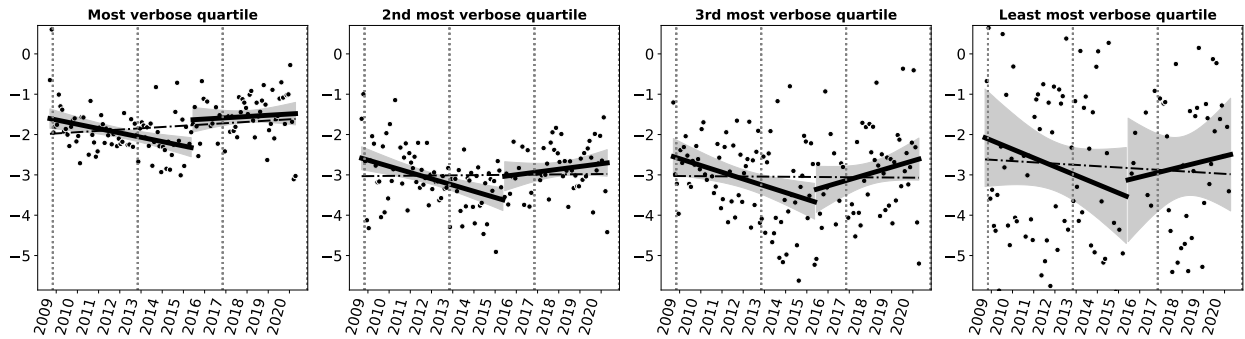


Figure 57: Anger: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

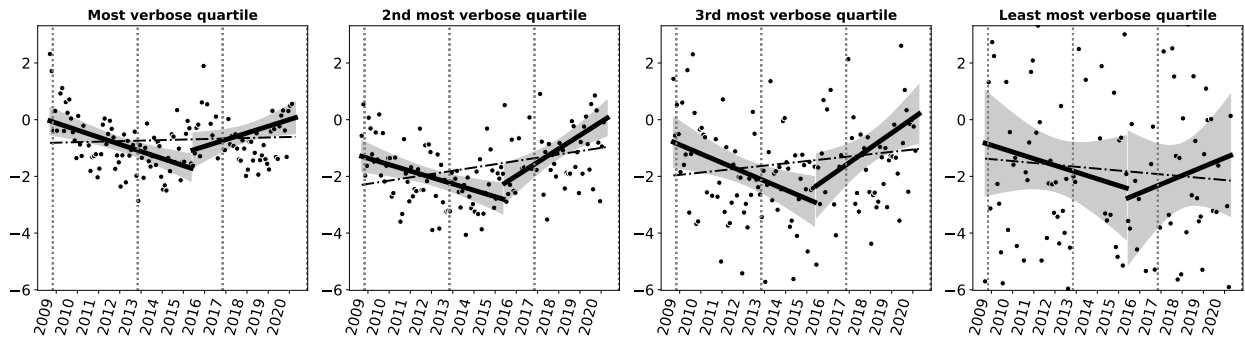


Figure 58: Anxiety: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

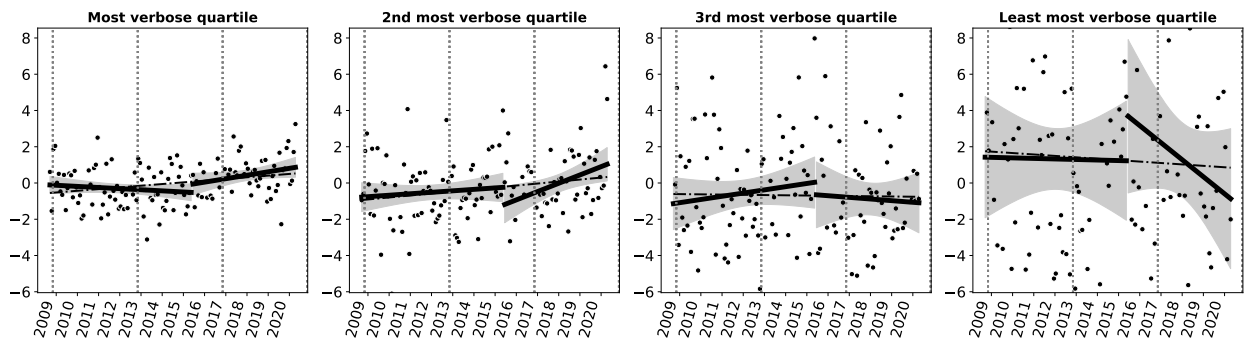


Figure 59: Certainty: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

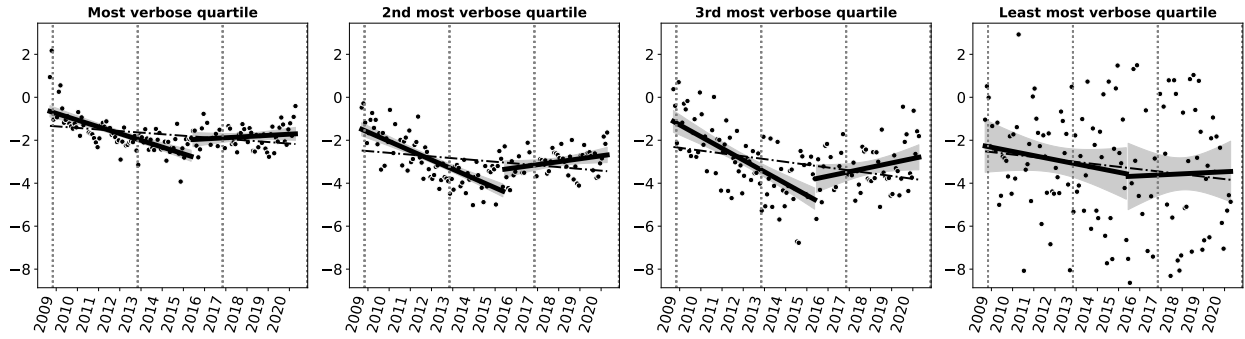


Figure 60: Negative Emotions: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

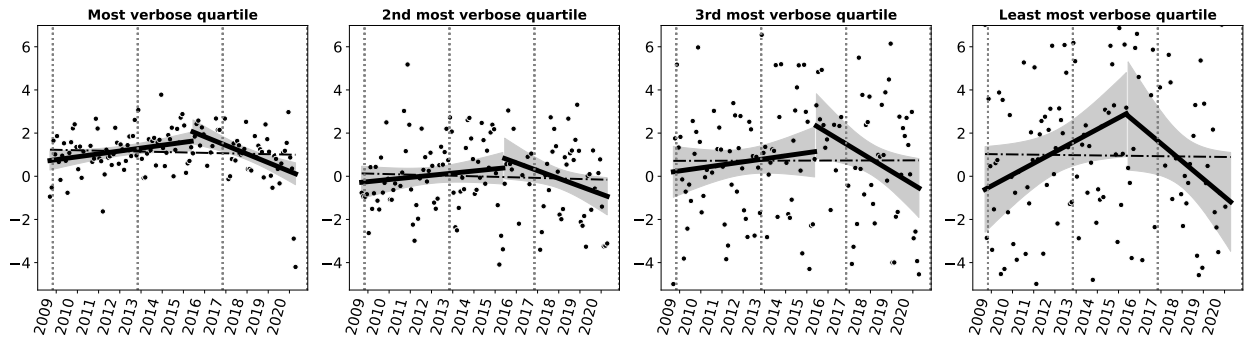


Figure 61: Positive Emotions: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

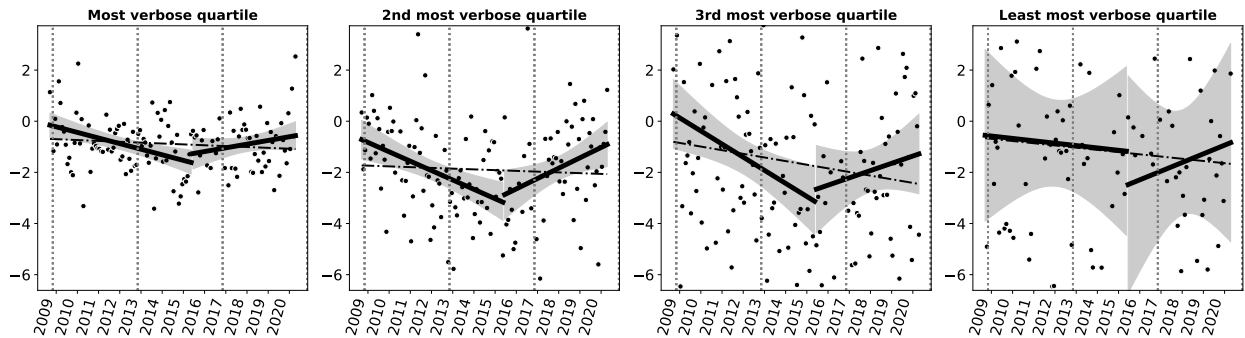


Figure 62: Sadness: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

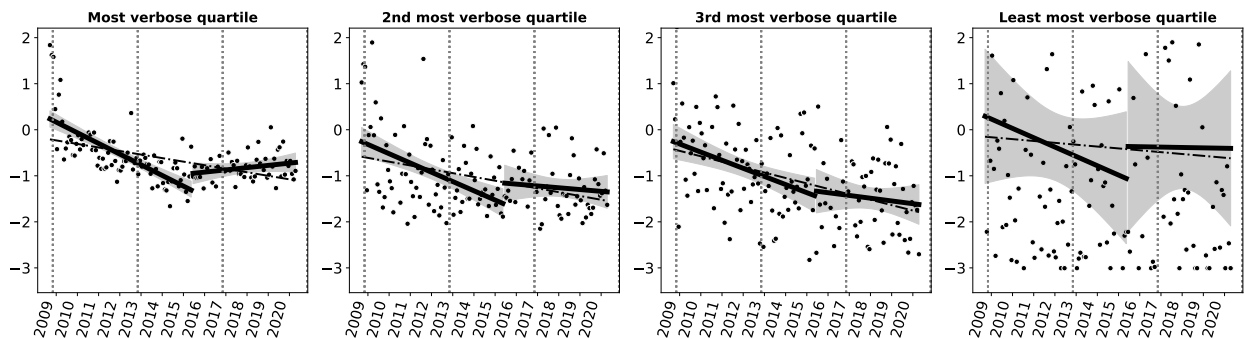


Figure 63: Swearing Terms: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

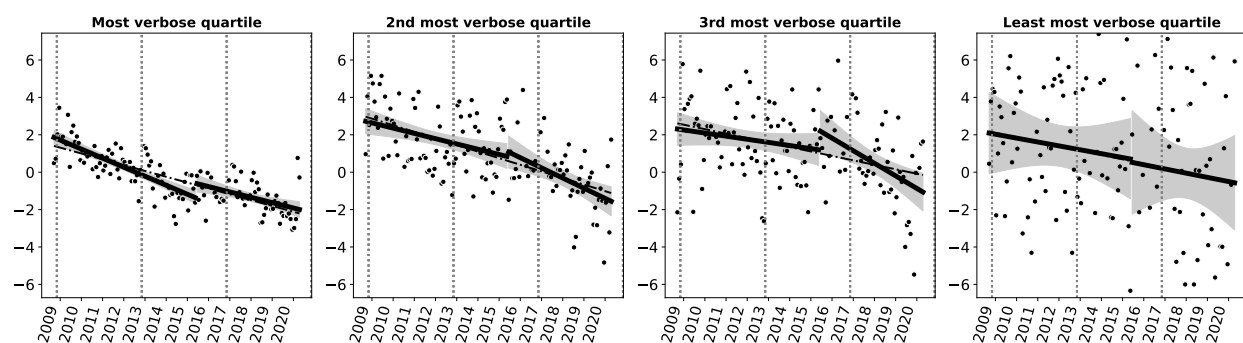


Figure 64: Tentativeness: Speaker Aggregation with Speakers Divided in Verbosity Quartiles

1.6 Quotation Aggregation, Split by Parties

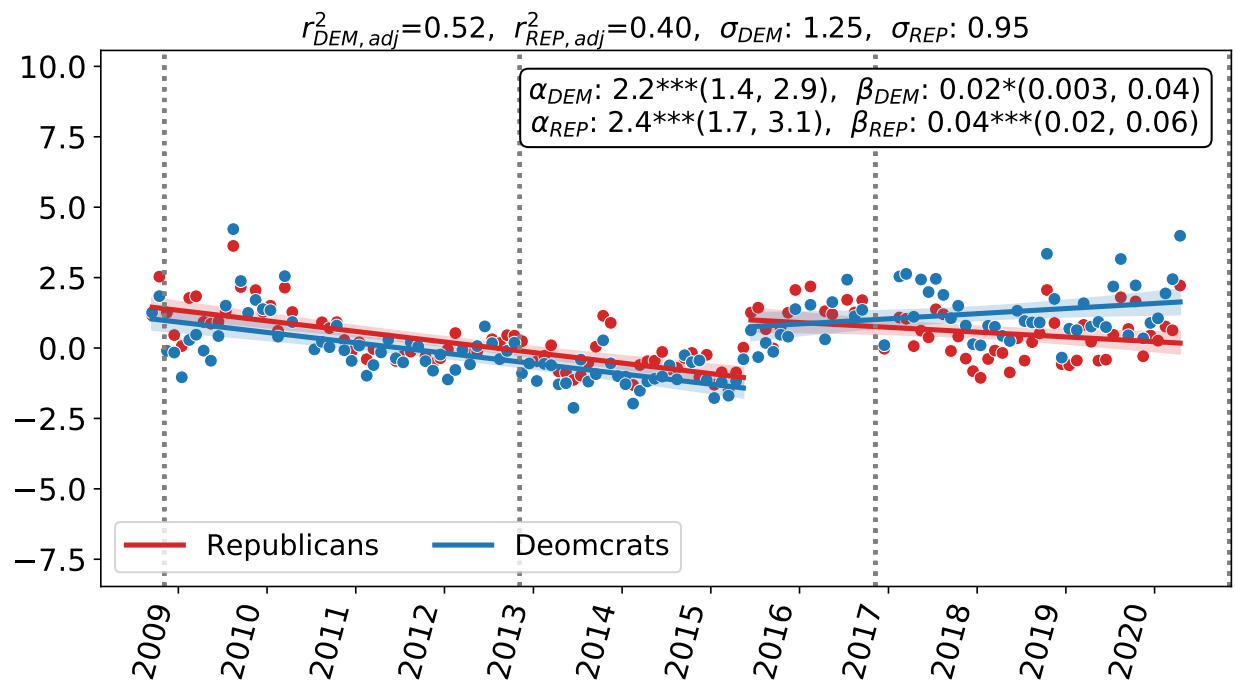


Figure 65: Neg. Emotion (empath): Quotation Aggregation, Separated for Parties

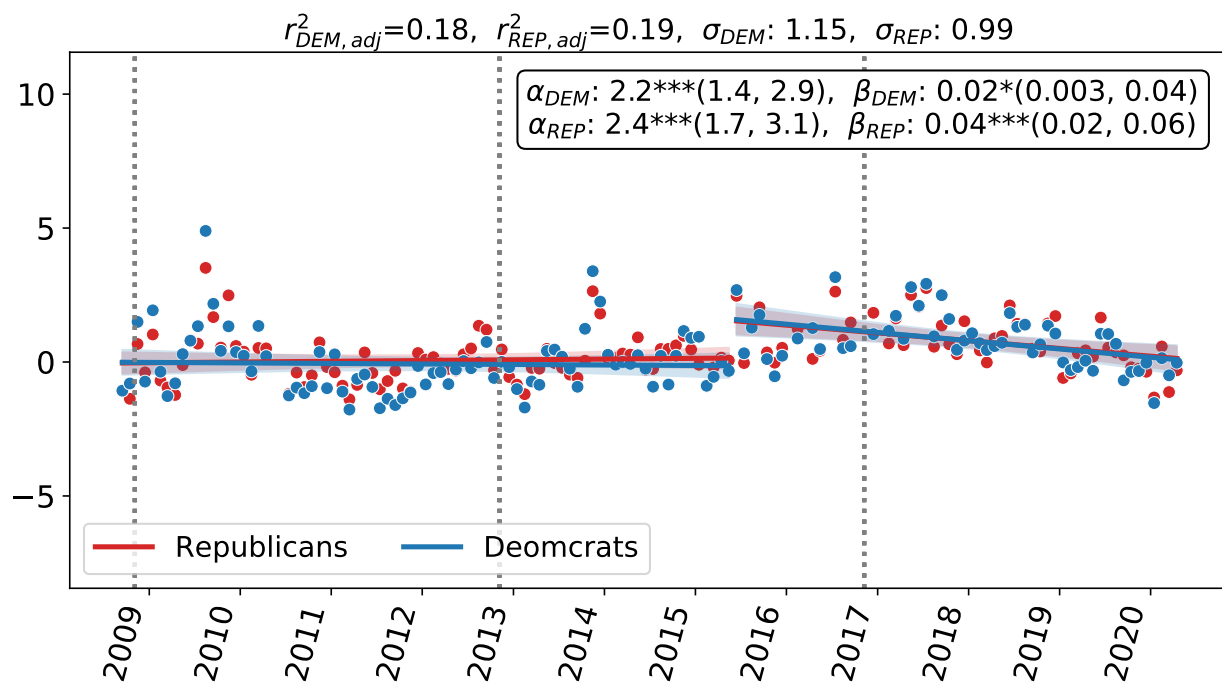


Figure 66: Pos. Emotion (empathy): Quotation Aggregation, Seperated for Parties

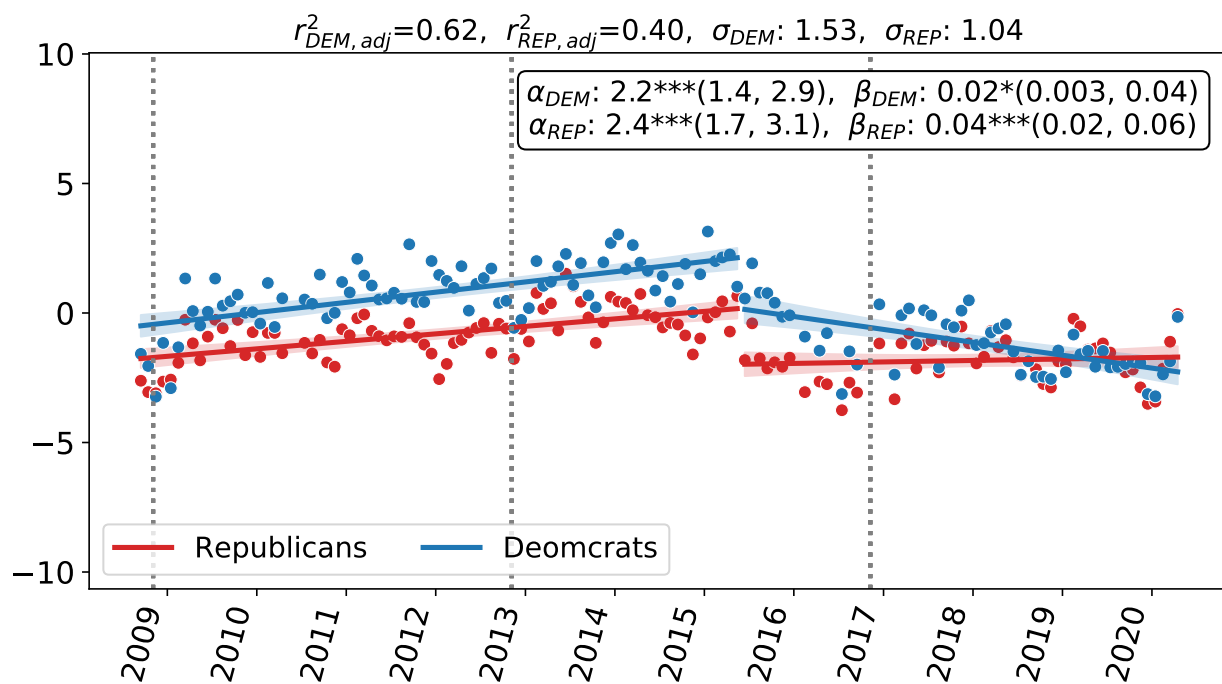


Figure 67: Science (empathy): Quotation Aggregation, Seperated for Parties

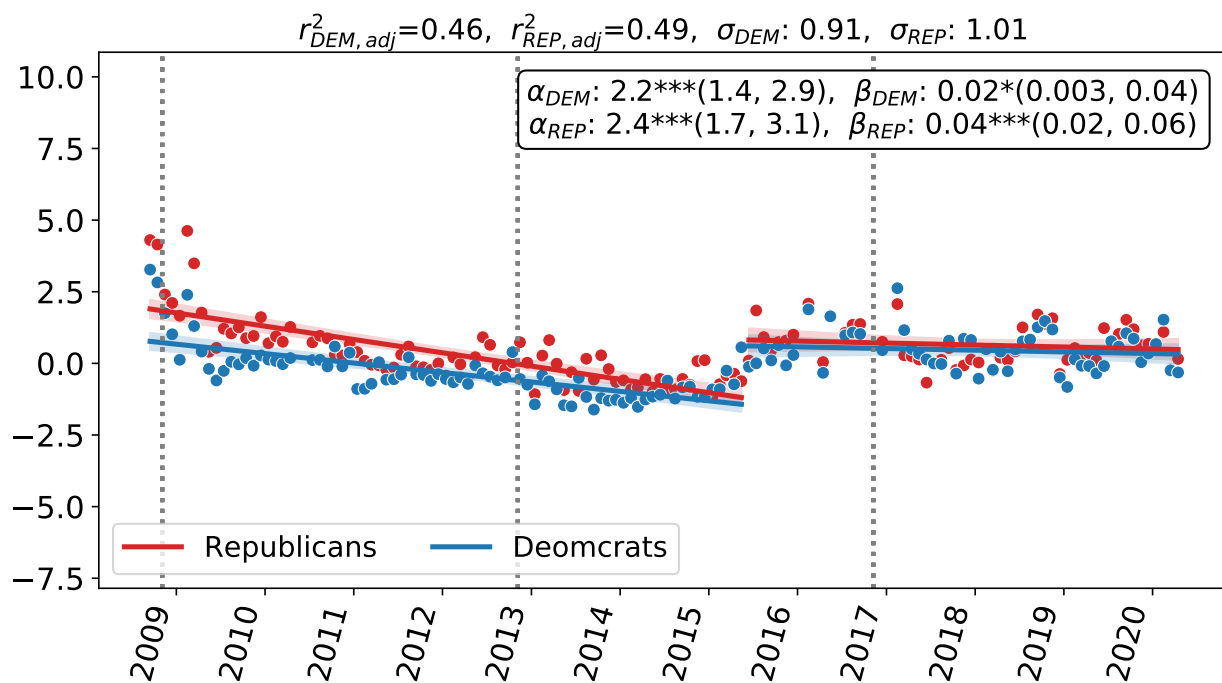


Figure 68: Swearing (empath): Quotation Aggregation, Seperated for Parties

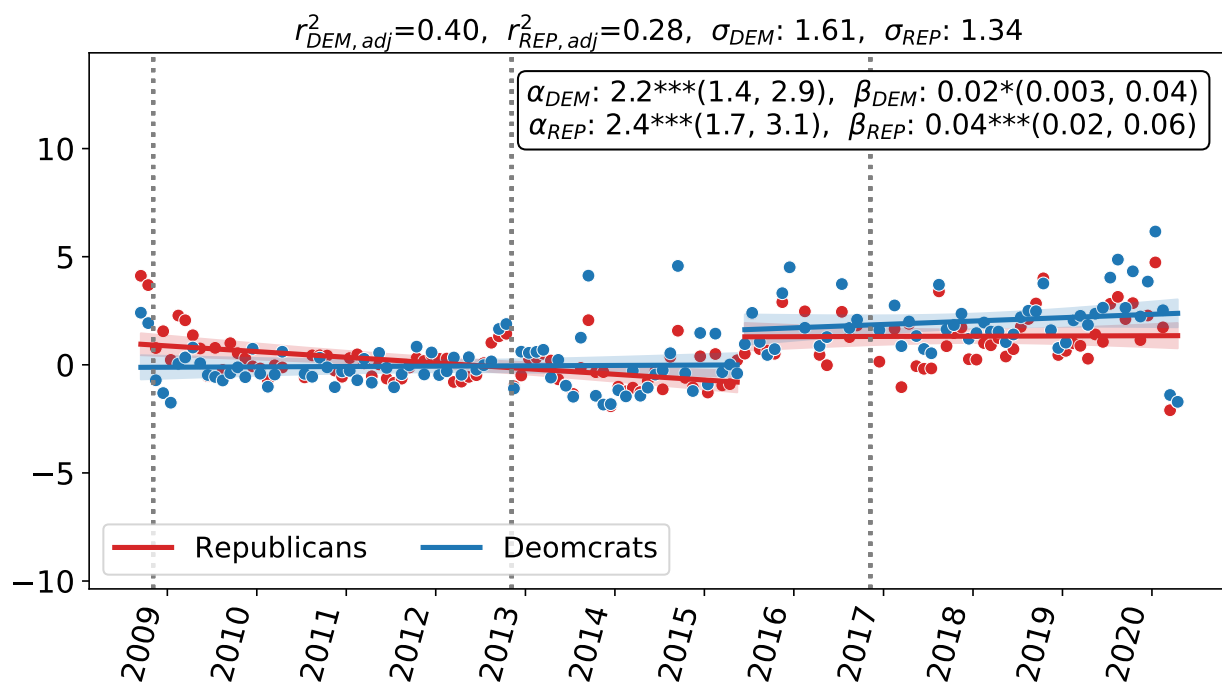


Figure 69: Anger: Quotation Aggregation, Seperated for Parties

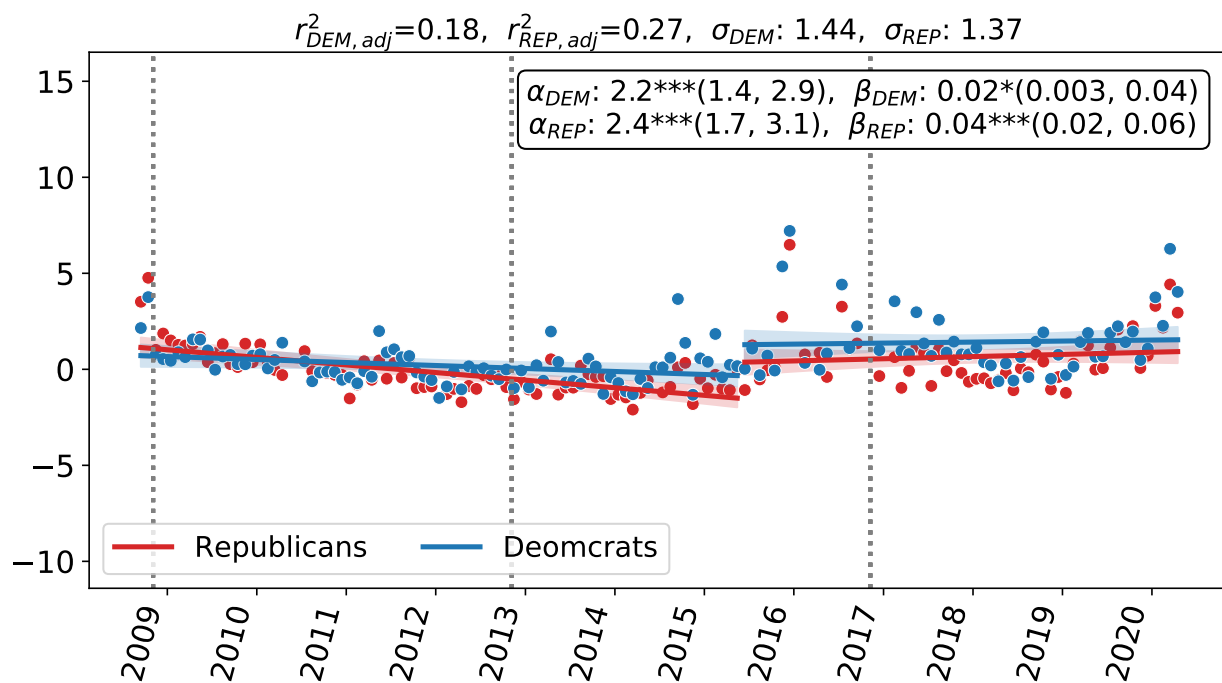


Figure 70: Anxiety: Quotation Aggregation, Seperated for Parties

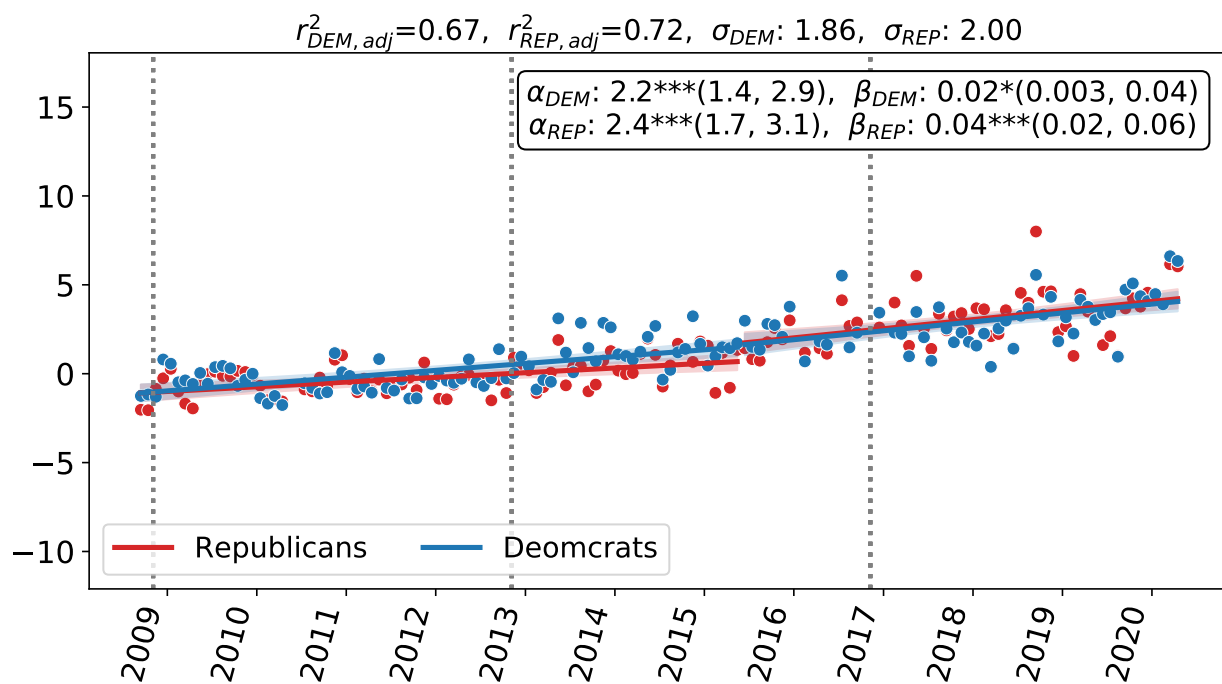


Figure 71: Certainty: Quotation Aggregation, Seperated for Parties

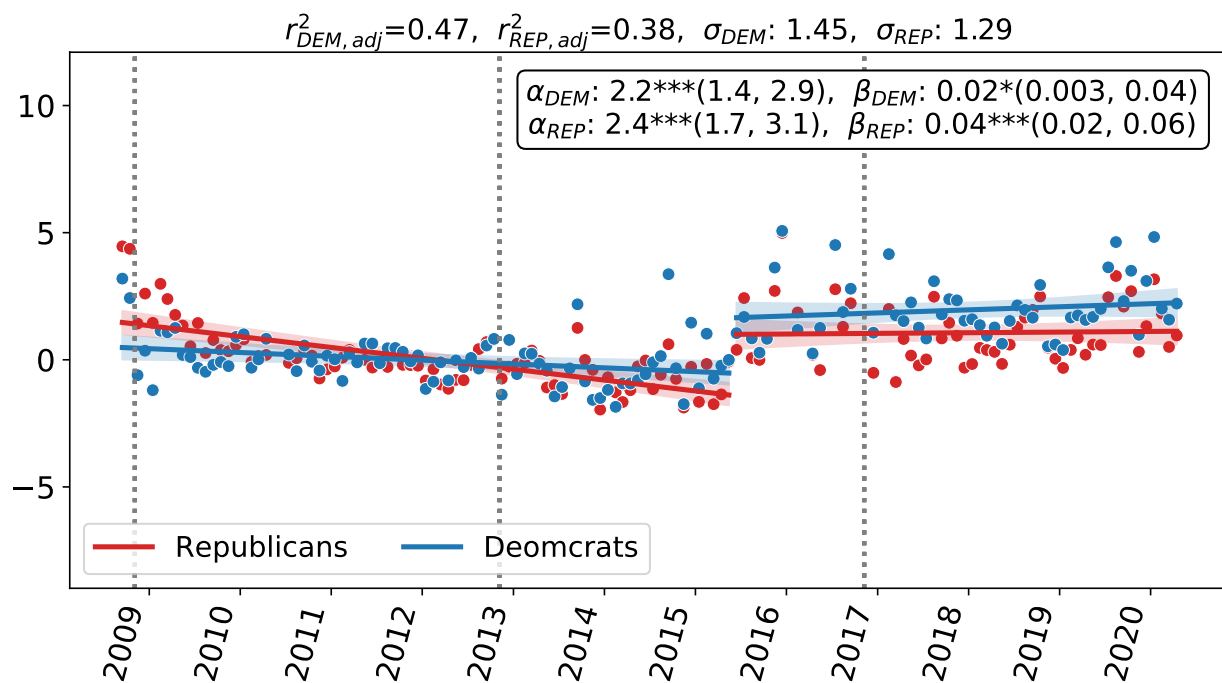


Figure 72: Negative Emotions: Quotation Aggregation, Seperated for Parties

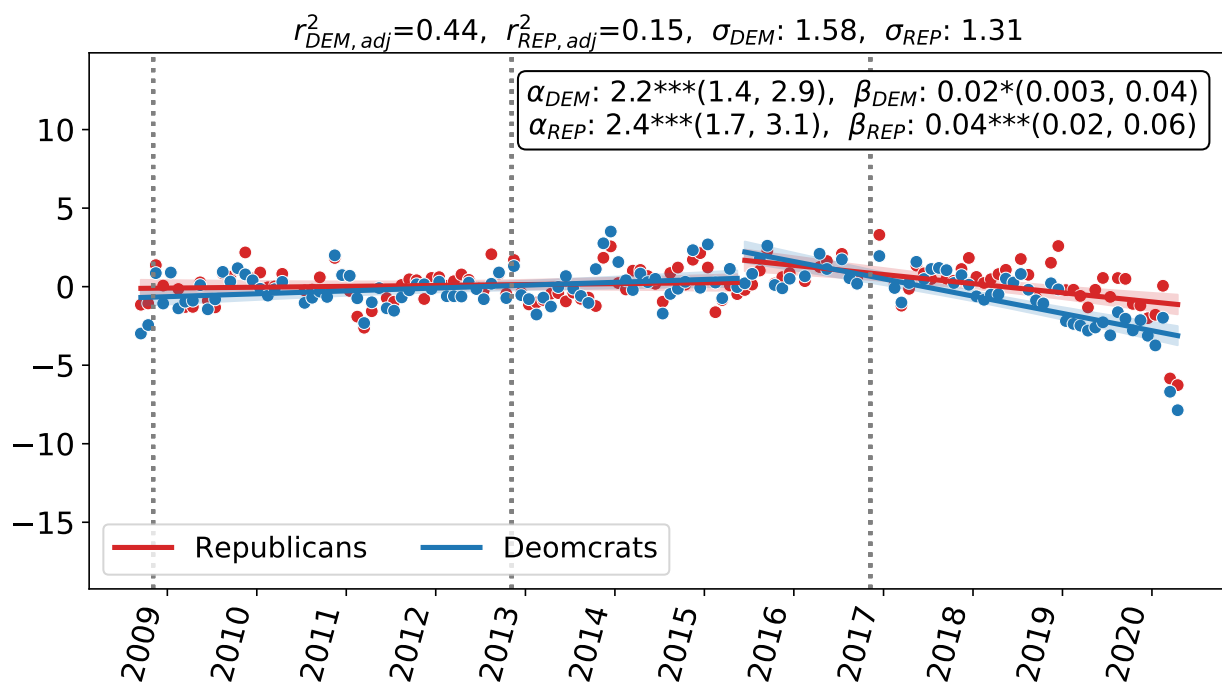


Figure 73: Positive Emotions: Quotation Aggregation, Seperated for Parties

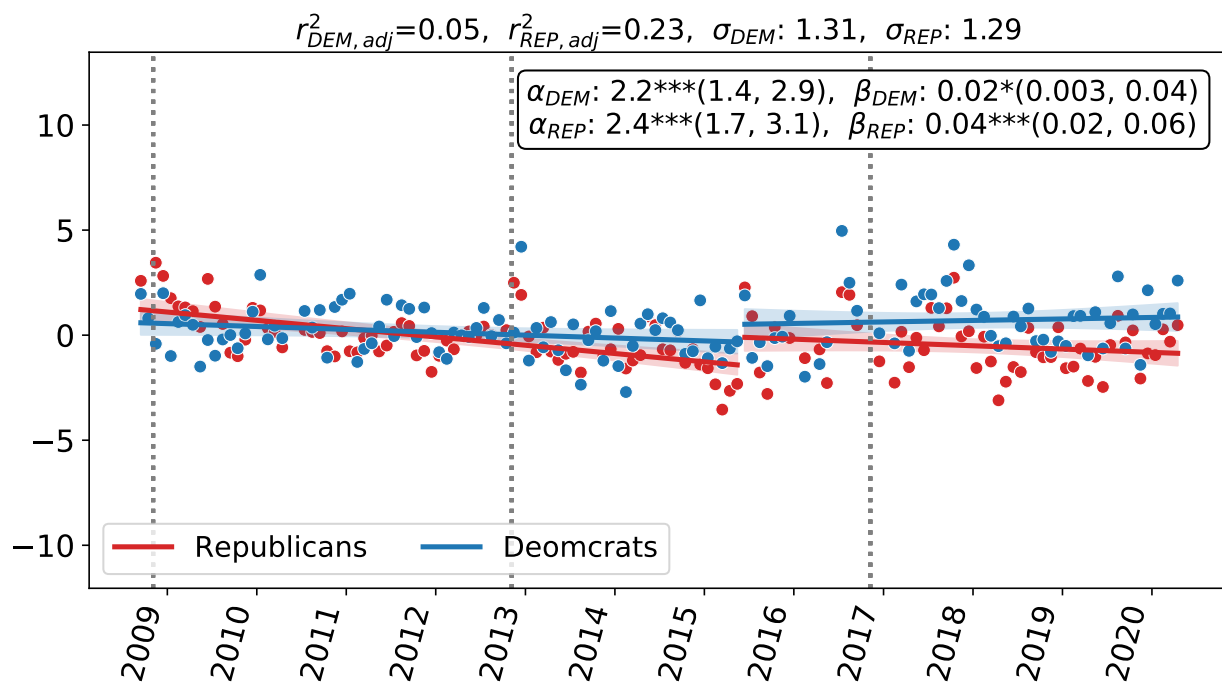


Figure 74: Sadness: Quotation Aggregation, Seperated for Parties

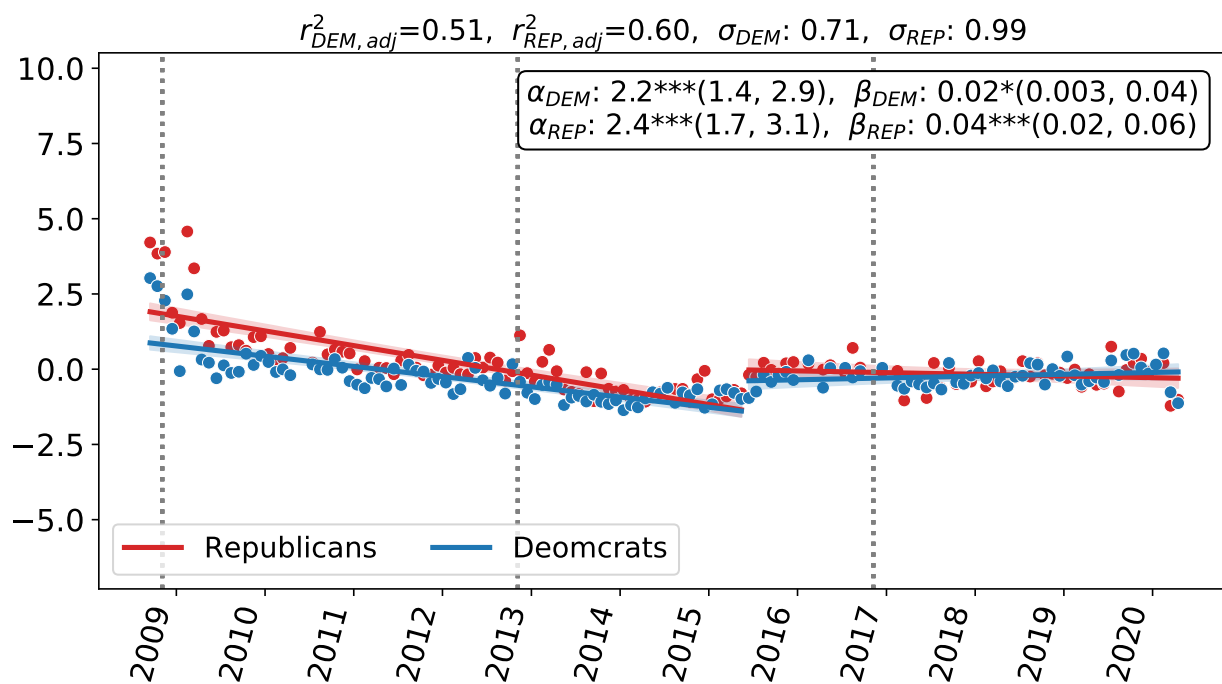


Figure 75: Swearing Terms: Quotation Aggregation, Seperated for Parties

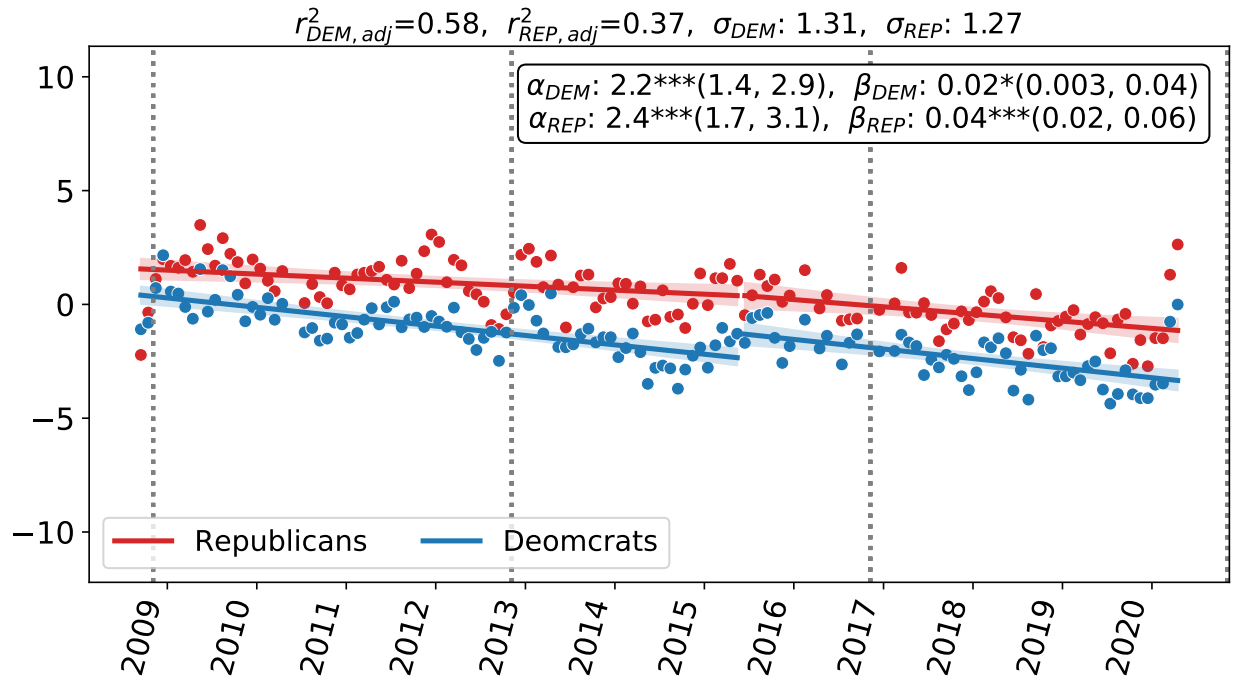


Figure 76: Tentativeness: Quotation Aggregation, Separated for Parties

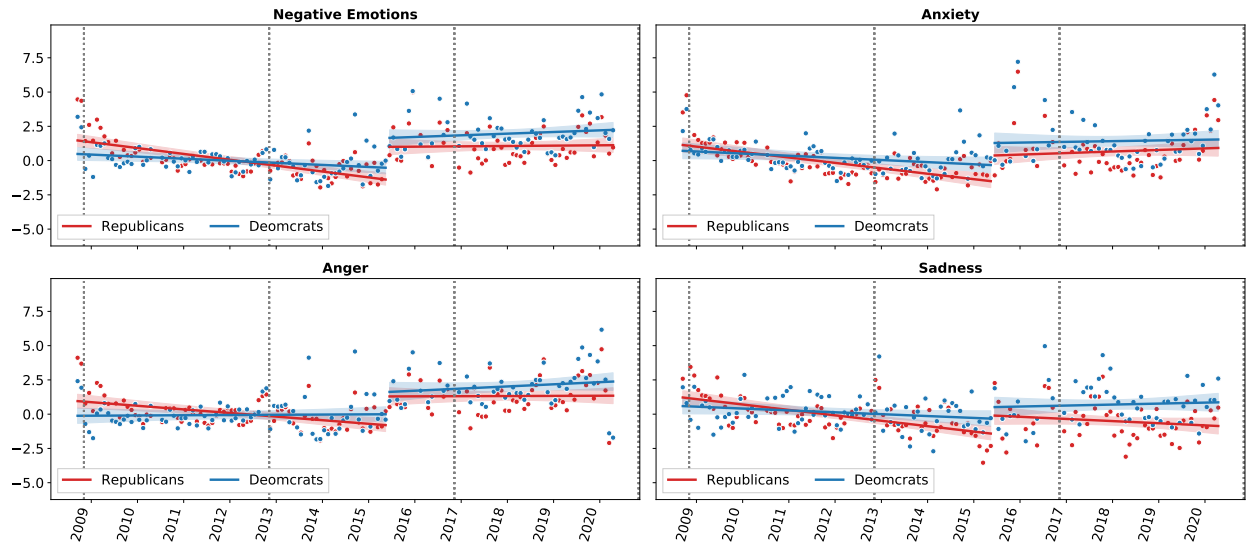


Figure 77: Negative Emotions: Quotation Aggregation, Separated for Parties

1.7 Quotation Aggregation Scores for Individual Politicians

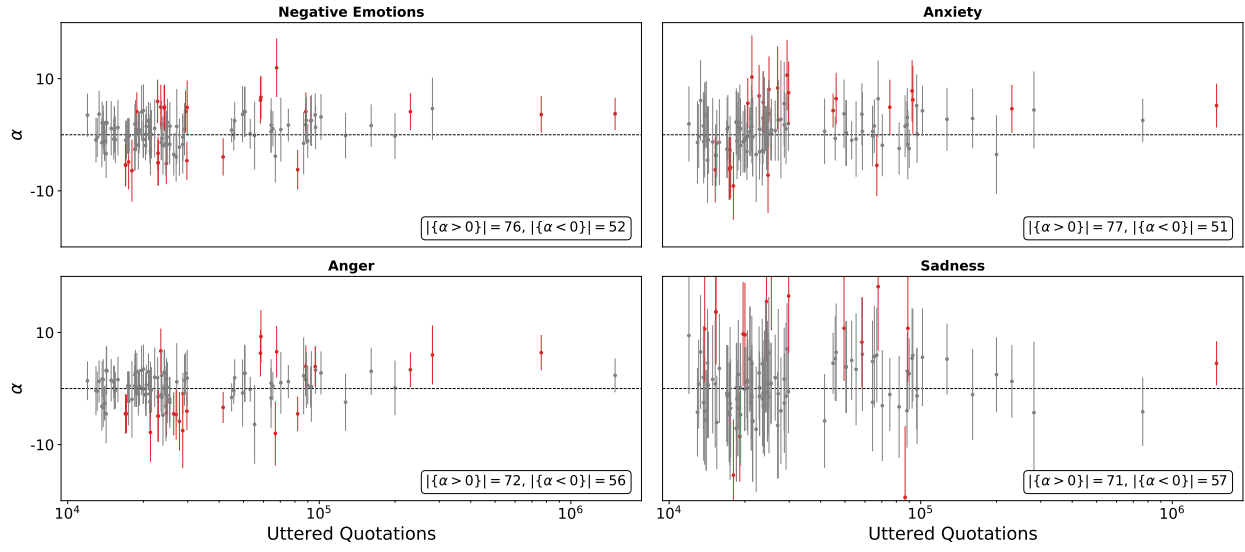


Figure 78: RDD α over verbosity: Quotation Aggregation Scores for Individual Politicians

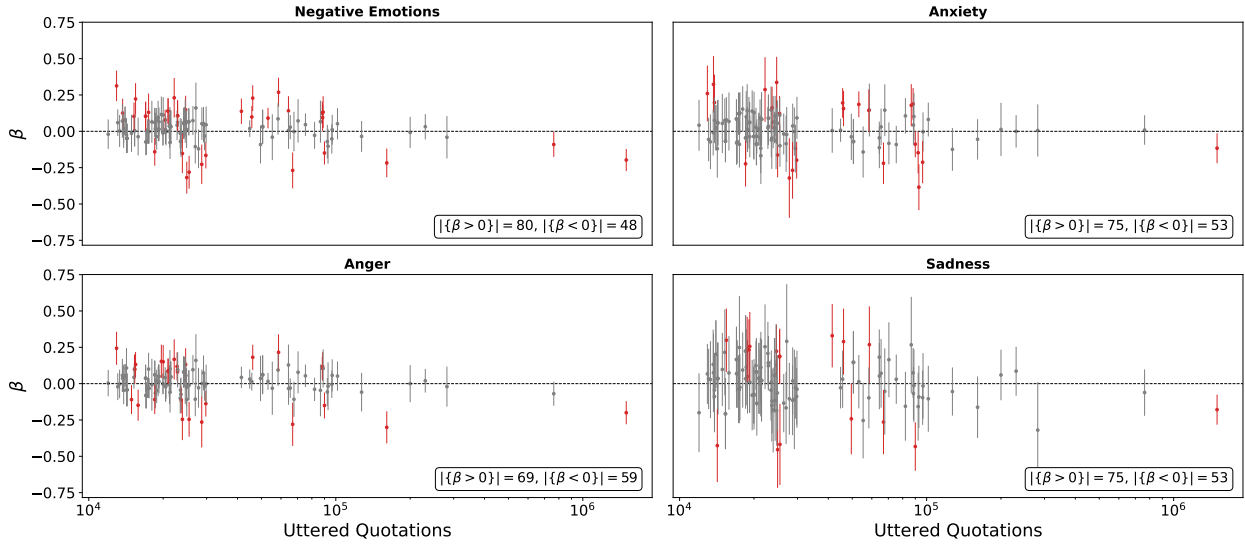


Figure 79: RDD β over verbosity: Quotation Aggregation Scores for Individual Politicians

1.8 Quotation Aggregation Scores for all but one Speaker

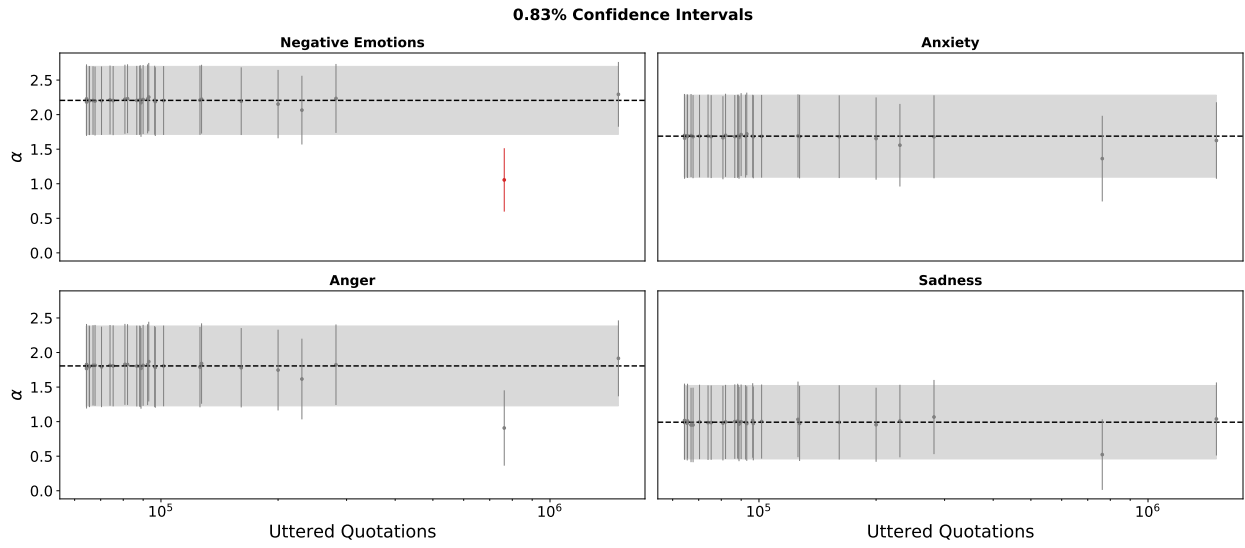


Figure 80: RDD α over verbosity: Quotation Aggregation Scores for all but one Speaker

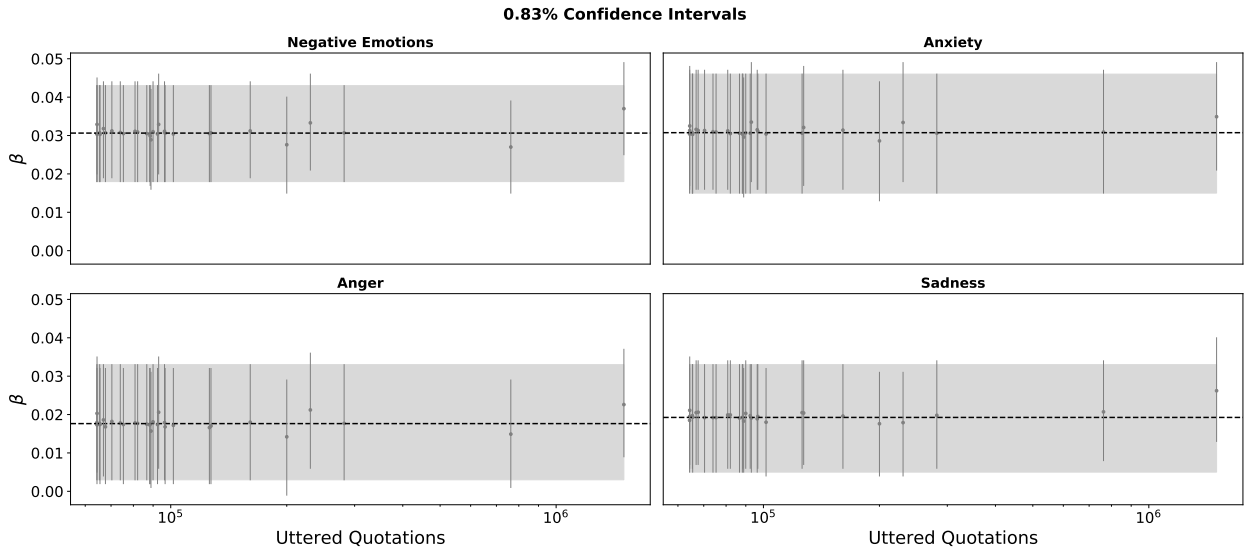


Figure 81: RDD β over verbosity: Quotation Aggregation Scores for all but one Speaker

1.9 Influence of the Placement of the Discontinuity on RDD performance

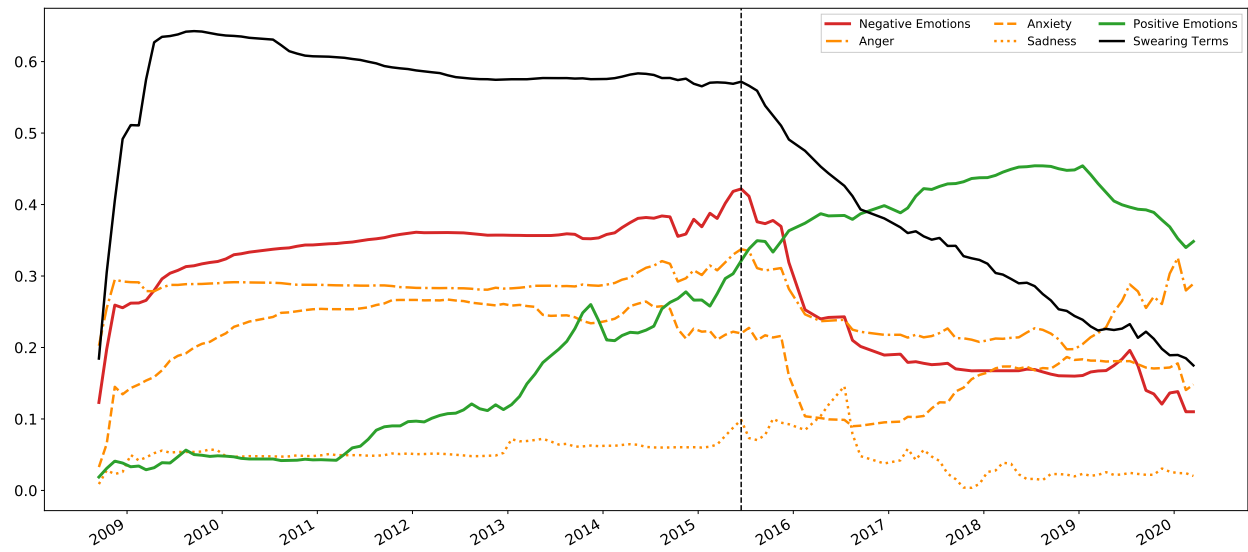


Figure 82: Adjusted r^2 score: Influence of the Placement of the Discontinuity on RDD performance

2 Tables

y_{cat}	μ	σ	Every Nth	σ/μ
Positive Emotions	0.04053	0.00083	24.7	2.0%
Negative Emotions	0.01856	0.00089	53.9	4.8%
Anxiety	0.00295	0.00021	339.2	7.2%
Anger	0.00649	0.00054	154.0	8.2%
Sadness	0.00351	0.00015	284.7	4.2%
Swearing Terms	0.00043	0.00014	2310.8	33.3%
Tentativeness	0.02275	0.00051	44.0	2.3%
Certainty	0.01521	0.00029	65.8	1.9%
Swearing (empath)	0.00069	0.00013	1442.4	19.1%
Science (empath)	0.00274	0.00021	365.6	7.6%
Neg. Emotion (empath)	0.00821	0.00052	121.9	6.4%
Pos. Emotion (empath)	0.00804	0.00041	124.4	5.1%

Table 1: Key Metrics for all Sentiment Attributes

	α_0	α	β_0	β	party	gender	congress	governing
Positive Emotions	1*** (0.6, 1.4)	1.1*** (0.6, 1.6)	0.002 (-0.004, 0.009)	-0.07*** (-0.09, -0.06)	-1.1*** (-1.3, -0.8)	-0.1 (-0.4, 0.1)	-1.6*** (-1.9, -1.4)	0.8*** (0.5, 1.1)
Negative Emotions	-1.7*** (-2.1, -1.4)	2*** (1.5, 2.4)	-0.01*** (-0.02, -0.009)	0.01* (0, 0.02)	0.5*** (0.2, 0.7)	-0.1 (-0.3, 0.1)	3.4*** (3.2, 3.6)	-0.6*** (-0.8, -0.3)
Anxiety	-1.7*** (-2.1, -1.3)	2.1*** (1.6, 2.6)	-0.02*** (-0.03, -0.01)	0.01 (-0.003, 0.02)	0.7*** (0.4, 0.9)	0.8*** (0.6, 1)	2*** (1.8, 2.2)	-0.5*** (-0.8, -0.3)
Anger	-1.5*** (-1.9, -1.1)	1.6*** (1.1, 2.1)	-0.002 (-0.009, 0.005)	0.004 (-0.009, 0.02)	0.3** (0.08, 0.6)	0.2 (-0.06, 0.4)	4*** (3.8, 4.2)	-0.5*** (-0.8, -0.2)
Sadness	-1.1*** (-1.6, -0.6)	0.7* (0.09, 1.4)	-0.01* (-0.02, -0.002)	0.004 (-0.01, 0.02)	0.8*** (0.5, 1.2)	0.1 (-0.2, 0.4)	1.8*** (1.5, 2.1)	-0.7*** (-1, -0.4)
Swearing Terms	-0.9*** (-1.1, -0.7)	0.8*** (0.5, 1)	-0.03*** (-0.04, -0.03)	0.04*** (0.04, 0.05)	-0.3*** (-0.4, -0.1)	-0.8*** (-0.9, -0.6)	-0.1 (-0.2, 0.03)	-0.3*** (-0.4, -0.2)
Tentativeness	1.1*** (0.8, 1.5)	1.2*** (0.8, 1.7)	-0.03*** (-0.04, -0.03)	-0.01* (-0.03, -0.003)	-1.2*** (-1.4, -0.9)	-4*** (-4.2, -3.8)	-3.2*** (-3.4, -3)	-0.05 (-0.3, 0.2)
Certainty	1*** (0.5, 1.4)	0.9** (0.3, 1.5)	0.03*** (0.02, 0.03)	0.02* (0.001, 0.03)	-0.3* (-0.7, -0.03)	1.1*** (0.8, 1.4)	-0.5*** (-0.8, -0.2)	0.5** (0.2, 0.8)
Swearing (empath)	-0.6*** (-0.8, -0.3)	1.4*** (1.1, 1.7)	-0.03*** (-0.04, -0.03)	0.03*** (0.02, 0.04)	-0.3*** (-0.5, -0.2)	-1.4*** (-1.5, -1.2)	-0.5*** (-0.7, -0.4)	-0.2* (-0.3, -0.01)
science	0.7*** (0.4, 1)	-1.7*** (-2.1, -1.3)	0.03*** (0.02, 0.04)	-0.05*** (-0.07, -0.04)	1.1*** (0.8, 1.3)	0.2 (-0.03, 0.4)	-1.1*** (-1.3, -0.9)	0.7*** (0.4, 0.9)
Neg. Emotion (empath)	-1*** (-1.3, -0.7)	1.8*** (1.4, 2.2)	-0.02*** (-0.03, -0.02)	0.02*** (0.007, 0.03)	0.6*** (0.4, 0.8)	-0.4*** (-0.6, -0.2)	0.5*** (0.3, 0.7)	-0.8*** (-1, -0.6)
Pos. Emotion (empath)	0.7*** (0.4, 1)	1.3*** (0.9, 1.7)	0.004 (-0.002, 0.009)	-0.04*** (-0.05, -0.03)	-0.2 (-0.4, 0.04)	0.5*** (0.3, 0.7)	-1.1*** (-1.3, -0.9)	-0.03 (-0.2, 0.2)

Table 2: RDD parameters for aggregation on distinct speaker groups.

	α_0	α	β_0	β	party	gender	congress	governing
Positive Emotions	0.2 (-0.05, 0.5)	0.03 (-0.3, 0.4)	0.003 (-0.001, 0.007)	-0.01* (-0.02, -0)	-0.2* (-0.4, -0.05)	-0.2* (-0.4, -0.04)	-0.7*** (-0.9, -0.5)	0.2* (0.03, 0.4)
Negative Emotions	0.2 (-0.1, 0.6)	0.1 (-0.2, 0.5)	-0.002 (-0.007, 0.003)	0.01* (0.001, 0.02)	0.2* (0.002, 0.3)	-0.3** (-0.4, -0.1)	1.3*** (1.1, 1.4)	-0.2* (-0.4, -0.03)
Anxiety	-0.4** (-0.6, -0.1)	0.7*** (0.4, 1.1)	-0.007*** (-0.01, -0.003)	0.006 (-0.002, 0.01)	0.3*** (0.2, 0.5)	0.4*** (0.2, 0.5)	0.8*** (0.7, 1)	-0.3*** (-0.4, -0.1)
Anger	0.4* (0.1, 0.8)	0.3 (-0.1, 0.7)	0.001 (-0.004, 0.006)	0.004 (-0.005, 0.01)	-0.2 (-0.3, 0.03)	-0.1 (-0.3, 0.04)	1.2*** (1, 1.4)	0 (-0.2, 0.2)
Sadness	-0.3* (-0.6, -0.06)	0.3 (-0.04, 0.7)	-0.005* (-0.009, 0)	0.001 (-0.008, 0.01)	0.2* (0.05, 0.4)	-0.06 (-0.2, 0.1)	0.7*** (0.5, 0.8)	-0.3*** (-0.5, -0.2)
Swearing Terms	-0.6*** (-0.7, -0.5)	0.4*** (0.3, 0.6)	-0.02*** (-0.02, -0.02)	0.02*** (0.02, 0.03)	-0.1* (-0.2, -0.01)	-0.8*** (-0.9, -0.7)	-0.08 (-0.2, 0.004)	-0.2*** (-0.3, -0.1)
Tentativeness	-1.1*** (-1.4, -0.8)	0.5** (0.1, 0.9)	-0.01*** (-0.02, -0.006)	-0.004 (-0.01, 0.005)	-0.5*** (-0.7, -0.3)	-1.3*** (-1.6, -1.1)	-1*** (-1.2, -0.8)	0 (-0.2, 0.2)
Certainty	1.1*** (0.9, 1.4)	0.3 (-0.009, 0.7)	0.009*** (0.004, 0.01)	0.003 (-0.007, 0.01)	0.03 (-0.2, 0.2)	0.3*** (0.2, 0.5)	0.1 (-0.07, 0.3)	0.1 (-0.05, 0.3)
Swearing (empath)	-0.5*** (-0.6, -0.3)	0.8*** (0.5, 1)	-0.02*** (-0.02, -0.02)	0.02*** (0.01, 0.02)	-0.2*** (-0.3, -0.1)	-1*** (-1.1, -0.9)	-0.3*** (-0.4, -0.2)	-0.1 (-0.2, 0.006)
science	-0.08 (-0.3, 0.1)	-0.6*** (-0.9, -0.3)	0.01*** (0.006, 0.01)	-0.03*** (-0.04, -0.02)	0.5*** (0.3, 0.6)	0.1* (0.01, 0.3)	-0.5*** (-0.7, -0.4)	0.2*** (0.1, 0.4)
Neg. Emotion (empath)	-0.5*** (-0.7, -0.3)	1.1*** (0.9, 1.4)	-0.01*** (-0.02, -0.01)	0.008* (0.001, 0.01)	0.1* (0.007, 0.3)	-0.3*** (-0.4, -0.2)	0.2** (0.04, 0.3)	-0.4*** (-0.6, -0.3)
Pos. Emotion (empath)	0.5*** (0.3, 0.7)	0.7*** (0.4, 0.9)	0.004* (0.001, 0.008)	-0.02*** (-0.02, -0.01)	-0.2* (-0.3, -0.04)	0.2*** (0.1, 0.4)	-0.6*** (-0.7, -0.5)	-0.06 (-0.2, 0.08)

Table 3: RDD parameters for aggregation on distinct speaker groups, excluding outliers.

	α_0	α	β_0	β
Positive Emotions	0.4(-0.1, 0.9)	1.6*** (0.8, 2.4)	0.01(-0.001, 0.02)	-0.08***(-0.1, -0.06)
Negative Emotions	-0.9***(-1.4, -0.5)	2.2*** (1.5, 2.9)	-0.02***(-0.03, -0.01)	0.03*** (0.01, 0.05)
Anxiety	-0.9***(-1.4, -0.4)	1.7*** (0.8, 2.5)	-0.02***(-0.03, -0.01)	0.03*** (0.009, 0.05)
Anger	-0.4(-0.9, 0.1)	1.8*** (1, 2.6)	-0.009(-0.02, 0.001)	0.02(-0.004, 0.04)
Sadness	-0.9***(-1.3, -0.4)	1*(0.2, 1.8)	-0.02***(-0.03, -0.01)	0.02(-0.001, 0.04)
Swearing Terms	-1.4***(-1.6, -1.1)	1.2*** (0.8, 1.5)	-0.03***(-0.04, -0.03)	0.03*** (0.02, 0.04)
Tentativeness	-0.9***(-1.3, -0.6)	0.6(-0.02, 1.2)	-0.02***(-0.03, -0.01)	-0.01(-0.03, 0.005)
Certainty	1.1*** (0.6, 1.5)	0.6(-0.08, 1.3)	0.03*** (0.02, 0.04)	0.02(-0.002, 0.03)
Swearing (empath)	-1.3***(-1.6, -1)	2*** (1.5, 2.5)	-0.03***(-0.04, -0.03)	0.03*** (0.01, 0.04)
science	1.1*** (0.8, 1.5)	-2.1***(-2.7, -1.5)	0.03*** (0.02, 0.04)	-0.04***(-0.06, -0.03)
Neg. Emotion (empath)	-1.2***(-1.6, -0.9)	2.1*** (1.5, 2.6)	-0.03***(-0.04, -0.02)	0.03*** (0.02, 0.05)
Pos. Emotion (empath)	0.004(-0.4, 0.4)	1.5*** (0.9, 2.2)	0(-0.009, 0.009)	-0.03***(-0.04, -0.008)

Table 4: RDD parameters for quotation aggregation.

	α_0	α	β_0	β
Positive Emotions	0.3(-0.02, 0.6)	0.9*** (0.5, 1.4)	0.006(0, 0.01)	-0.04***(-0.06, -0.03)
Negative Emotions	-1.1***(-1.3, -0.8)	1.4*** (0.9, 1.8)	-0.01***(-0.02, -0.008)	0.02*** (0.009, 0.03)
Anxiety	-0.9***(-1.2, -0.7)	0.8*** (0.3, 1.2)	-0.01***(-0.02, -0.009)	0.02*** (0.01, 0.04)
Anger	-0.7***(-1.1, -0.4)	1.2*** (0.7, 1.8)	-0.007(-0.01, 0)	0.006(-0.008, 0.02)
Sadness	-0.7***(-1.1, -0.3)	0.6(-0.05, 1.2)	-0.02***(-0.02, -0.007)	0.02*(0.003, 0.03)
Swearing Terms	-1.2***(-1.4, -1)	1.1*** (0.8, 1.3)	-0.03***(-0.03, -0.02)	0.03*** (0.02, 0.03)
Tentativeness	-0.2(-0.5, 0.06)	0.3(-0.1, 0.8)	-0.02***(-0.02, -0.009)	-0.006(-0.02, 0.007)
Certainty	-0.07(-0.3, 0.1)	0.4*(0.08, 0.8)	0.01*** (0.01, 0.02)	0.003(-0.006, 0.01)
Swearing (empath)	-1.4***(-1.7, -1.2)	1.9*** (1.5, 2.3)	-0.03***(-0.03, -0.02)	0.02*** (0.01, 0.03)
science	1.3*** (1.1, 1.6)	-1.6***(-2.1, -1.2)	0.02*** (0.01, 0.03)	-0.03***(-0.04, -0.02)
Neg. Emotion (empath)	-1.5***(-1.8, -1.2)	2.1*** (1.6, 2.5)	-0.03***(-0.03, -0.02)	0.02*** (0.008, 0.03)
Pos. Emotion (empath)	-0.3*(-0.7, 0.001)	1.2*** (0.6, 1.8)	0.002(-0.006, 0.009)	-0.02**(-0.03, -0.005)

Table 5: RDD parameters for quotation aggregation, excluding outliers.

	α_0	α	β_0	β
Positive Emotions	1.2*** (0.6, 1.7)	0.5(-0.4, 1.4)	0.01(0, 0.02)	-0.05***(-0.07, -0.02)
Negative Emotions	-3.5***(-3.7, -3.3)	0.8*** (0.4, 1.2)	-0.03***(-0.04, -0.03)	0.04*** (0.03, 0.05)
Anxiety	-2.2***(-2.7, -1.8)	0.6(-0.1, 1.3)	-0.02***(-0.03, -0.01)	0.05*** (0.03, 0.07)
Anger	-2.9***(-3.1, -2.7)	0.6*** (0.2, 0.9)	-0.01***(-0.01, -0.006)	0.02*** (0.007, 0.03)
Sadness	-2.3***(-2.7, -1.8)	0.3(-0.5, 1)	-0.02***(-0.03, -0.01)	0.05*** (0.03, 0.07)
Swearing Terms	-1.4***(-1.6, -1.2)	0.4*(0.05, 0.7)	-0.02***(-0.02, -0.01)	0.02*** (0.01, 0.03)
Tentativeness	-0.3(-0.7, 0.09)	0.6(-0.01, 1.3)	-0.03***(-0.04, -0.02)	-0.004(-0.02, 0.01)
Certainty	-0.4(-0.8, 0.09)	-0.09(-0.8, 0.7)	0(-0.01, 0.01)	0.02(0, 0.04)
Swearing (empath)	-1.5***(-1.7, -1.3)	0.5** (0.1, 0.8)	-0.02***(-0.03, -0.02)	0.02*** (0.01, 0.03)
science	2.3*** (2, 2.6)	-0.5(-1, 0.02)	0.02*** (0.01, 0.03)	-0.03***(-0.05, -0.02)
Neg. Emotion (empath)	-2.2***(-2.4, -1.9)	0.8*** (0.4, 1.1)	-0.03***(-0.04, -0.03)	0.04*** (0.03, 0.05)
Pos. Emotion (empath)	0.5** (0.2, 0.8)	0.7** (0.2, 1.3)	0.001(-0.007, 0.008)	-0.01*(-0.03, 0)

Table 6: RDD parameters for speaker aggregation.

	α_0	α	β_0	β
Positive Emotions	1.2*** (0.7, 1.6)	0.5(-0.2, 1.2)	0.01** (0.003, 0.02)	-0.04*** (-0.06, -0.02)
Negative Emotions	-3.4*** (-3.6, -3.2)	0.7*** (0.3, 1)	-0.03*** (-0.03, -0.02)	0.03*** (0.03, 0.04)
Anxiety	-2.1*** (-2.4, -1.8)	0.9*** (0.5, 1.4)	-0.02*** (-0.02, -0.01)	0.02*** (0.01, 0.04)
Anger	-2.9*** (-3.1, -2.7)	0.5** (0.2, 0.8)	-0.008*** (-0.01, -0.004)	0.01*** (0.006, 0.02)
Sadness	-2.1*** (-2.4, -1.7)	0.07(-0.6, 0.7)	-0.01*** (-0.02, -0.006)	0.03*** (0.02, 0.05)
Swearing Terms	-1.3*** (-1.4, -1.1)	0.2(-0.01, 0.4)	-0.01*** (-0.01, -0.009)	0.01*** (0.007, 0.02)
Tentativeness	-0.09(-0.4, 0.3)	0.2(-0.4, 0.7)	-0.02*** (-0.03, -0.01)	0.006(-0.01, 0.02)
Certainty	-0.3(-0.6, 0.1)	-0.04(-0.6, 0.6)	0.004(-0.004, 0.01)	0.006(-0.01, 0.02)
Swearing (empath)	-1.4*** (-1.5, -1.2)	0.3* (0.06, 0.6)	-0.02*** (-0.02, -0.01)	0.02*** (0.01, 0.02)
science	2.3*** (2, 2.6)	-0.5* (-1, -0.03)	0.02*** (0.01, 0.02)	-0.03*** (-0.04, -0.02)
Neg. Emotion (empath)	-2.1*** (-2.3, -1.9)	0.7*** (0.4, 1)	-0.03*** (-0.03, -0.03)	0.03*** (0.03, 0.04)
Pos. Emotion (empath)	0.5* (0.2, 0.8)	0.7** (0.2, 1.3)	0.001(-0.007, 0.008)	-0.01* (-0.03, 0)

Table 7: RDD parameters for speaker aggregation, excluding outliers.

	α_0	α	β_0	β
Positive Emotions	0.5* (0.002, 1.1)	1.7*** (0.8, 2.5)	0.01** (0.004, 0.03)	-0.1*** (-0.1, -0.09)
Negative Emotions	-0.5* (-1, -0.05)	2.2*** (1.4, 2.9)	-0.01* (-0.02, -0.002)	0.02* (0.003, 0.04)
Anxiety	-0.3(-0.9, 0.3)	1.6*** (0.7, 2.5)	-0.01* (-0.03, 0)	0.02(-0.007, 0.04)
Anger	-0.006(-0.6, 0.6)	1.6*** (0.7, 2.5)	0.001(-0.01, 0.01)	0.01(-0.01, 0.04)
Sadness	-0.3(-0.9, 0.2)	0.8(-0.07, 1.8)	-0.01(-0.02, 0.001)	0.02(-0.007, 0.04)
Swearing Terms	-1.4*** (-1.6, -1.2)	1*** (0.6, 1.4)	-0.03*** (-0.03, -0.02)	0.03*** (0.02, 0.04)
Tentativeness	-2.3*** (-2.7, -2)	1*** (0.4, 1.6)	-0.03*** (-0.04, -0.03)	-0.001(-0.02, 0.01)
Certainty	1.5*** (1, 2)	0.2(-0.6, 0.9)	0.03*** (0.02, 0.04)	0.01(-0.01, 0.03)
Swearing (empath)	-1.4*** (-1.7, -1.1)	2*** (1.6, 2.5)	-0.03*** (-0.03, -0.02)	0.02*** (0.01, 0.04)
science	2.1*** (1.7, 2.5)	-2*** (-2.7, -1.3)	0.03*** (0.02, 0.04)	-0.07*** (-0.09, -0.06)
Neg. Emotion (empath)	-1.4*** (-1.8, -1)	2.2*** (1.6, 2.8)	-0.03*** (-0.04, -0.02)	0.05*** (0.03, 0.06)
Pos. Emotion (empath)	-0.1(-0.6, 0.3)	1.7*** (1, 2.5)	-0.002(-0.01, 0.008)	-0.02* (-0.04, -0.005)

Table 8: RDD parameters for aggregation over different parties, democrats only.

	α_0	α	β_0	β
Positive Emotions	-0.03(-0.4, 0.3)	1.2*** (0.5, 1.8)	0.004(-0.005, 0.01)	-0.04*** (-0.06, -0.02)
Negative Emotions	-0.4* (-0.7, -0.02)	1.4*** (0.9, 2)	-0.009* (-0.01, -0.002)	0.02** (0.006, 0.04)
Anxiety	-0.4* (-0.8, -0.06)	0.8* (0.2, 1.4)	-0.01*** (-0.02, -0.005)	0.03*** (0.01, 0.04)
Anger	-0.06(-0.4, 0.3)	1.1*** (0.5, 1.7)	-0.001(-0.008, 0.007)	0.02* (0.005, 0.04)
Sadness	-0.2(-0.7, 0.2)	0.4(-0.4, 1.1)	-0.008(-0.02, 0.001)	0.01(-0.007, 0.03)
Swearing Terms	-1.2*** (-1.3, -1)	0.8*** (0.5, 1)	-0.02*** (-0.02, -0.02)	0.03*** (0.02, 0.03)
Tentativeness	-1.8*** (-2.2, -1.5)	0.4(-0.1, 0.9)	-0.02*** (-0.03, -0.01)	0.02* (0, 0.03)
Certainty	1.4*** (1, 1.8)	0.5(-0.2, 1.2)	0.02*** (0.01, 0.03)	-0.02(-0.04, 0)
Swearing (empath)	-1.3*** (-1.5, -1)	1.8*** (1.4, 2.2)	-0.02*** (-0.03, -0.01)	0.02*** (0.007, 0.03)
science	1.1*** (0.6, 1.6)	-1** (-1.7, -0.3)	0.02** (0.006, 0.03)	-0.05*** (-0.07, -0.04)
Neg. Emotion (empath)	-1.2*** (-1.5, -0.9)	1.8*** (1.3, 2.3)	-0.02*** (-0.03, -0.02)	0.03*** (0.02, 0.04)
Pos. Emotion (empath)	-0.1(-0.5, 0.2)	1.3*** (0.7, 1.9)	-0(-0.008, 0.008)	-0.02* (-0.03, -0.002)

Table 9: RDD parameters for aggregation over different parties, excluding outliers, democrats only.

	α_0	α	β_0	β
Positive Emotions	0.3(-0.3, 0.8)	1.4**(0.5, 2.3)	0.005(-0.007, 0.02)	-0.05***(-0.08, -0.03)
Negative Emotions	-1.4***(-1.8, -0.9)	2.4*** (1.7, 3.1)	-0.04***(-0.04, -0.03)	0.04*** (0.02, 0.06)
Anxiety	-1.5***(-2, -1)	1.9*** (1, 2.7)	-0.03***(-0.04, -0.02)	0.04*** (0.02, 0.06)
Anger	-0.8**(-1.3, -0.3)	2.1*** (1.3, 2.9)	-0.02***(-0.03, -0.01)	0.02*(0.001, 0.04)
Sadness	-1.4***(-1.9, -0.9)	1.3** (0.5, 2.1)	-0.03***(-0.04, -0.02)	0.02(-0.002, 0.04)
Swearing Terms	-1.4***(-1.6, -1.1)	1.3*** (0.9, 1.8)	-0.04***(-0.05, -0.03)	0.04*** (0.02, 0.05)
Tentativeness	0.4(-0.06, 0.8)	0(-0.7, 0.7)	-0.01**(-0.02, -0.005)	-0.01(-0.03, 0.007)
Certainty	0.7** (0.2, 1.1)	1.1** (0.3, 1.8)	0.02*** (0.01, 0.03)	0.02*(0.001, 0.04)
Swearing (empath)	-1.2***(-1.5, -0.9)	2*** (1.5, 2.5)	-0.04***(-0.04, -0.03)	0.03*** (0.02, 0.05)
science	0.2(-0.2, 0.5)	-2.1***(-2.7, -1.6)	0.02*** (0.02, 0.03)	-0.02*(-0.03, -0.004)
Neg. Emotion (empath)	-1***(-1.4, -0.7)	2*** (1.5, 2.6)	-0.03***(-0.04, -0.02)	0.02*(0.003, 0.03)
Pos. Emotion (empath)	0.1(-0.2, 0.5)	1.4*** (0.8, 2)	0.002(-0.006, 0.01)	-0.03**(-0.04, -0.01)

Table 10: RDD parameters for aggregation over different parties, republicans only.

	α_0	α	β_0	β
Positive Emotions	0.08(-0.3, 0.5)	0.9** (0.2, 1.6)	0.002(-0.006, 0.01)	-0.03**(-0.04, -0.009)
Negative Emotions	-1***(-1.3, -0.6)	1.6*** (0.9, 2.2)	-0.02***(-0.03, -0.01)	0.03*** (0.01, 0.04)
Anxiety	-1.2***(-1.6, -0.9)	1.1*** (0.5, 1.7)	-0.03***(-0.03, -0.02)	0.04*** (0.02, 0.06)
Anger	-0.5**(-0.9, -0.2)	1.4*** (0.8, 2)	-0.01***(-0.02, -0.006)	0.02*(0.004, 0.04)
Sadness	-0.9***(-1.4, -0.5)	0.9** (0.2, 1.6)	-0.02***(-0.03, -0.009)	0.009(-0.009, 0.03)
Swearing Terms	-1***(-1.2, -0.9)	1*** (0.7, 1.3)	-0.03***(-0.03, -0.02)	0.02*** (0.02, 0.03)
Tentativeness	0.3(-0.06, 0.7)	-0.05(-0.7, 0.6)	-0.003(-0.01, 0.006)	-0.02**(-0.04, -0.006)
Certainty	0.8*** (0.4, 1.1)	1*** (0.5, 1.6)	0.02*** (0.007, 0.02)	-0.009(-0.03, 0.008)
Swearing (empath)	-0.9***(-1.2, -0.7)	1.7*** (1.3, 2.1)	-0.03***(-0.03, -0.02)	0.02*** (0.01, 0.03)
science	-0.02(-0.3, 0.3)	-1.5***(-2.1, -1)	0.02*** (0.01, 0.03)	-0.02*(-0.03, -0.001)
Neg. Emotion (empath)	-1***(-1.3, -0.7)	2*** (1.5, 2.5)	-0.03***(-0.04, -0.02)	0.01*(0.001, 0.03)
Pos. Emotion (empath)	0.1(-0.2, 0.5)	1.1*** (0.5, 1.6)	0.005(-0.002, 0.01)	-0.02**(-0.04, -0.009)

Table 11: RDD parameters for aggregation over different parties, excluding outliers, republicans only.

	α_0	α	β_0	β
Positive Emotions	1.6*** (1.2, 2.1)	0.4(-0.3, 1.1)	0.01*(0.002, 0.02)	-0.04***(-0.06, -0.03)
Negative Emotions	-2.7***(-3, -2.5)	0.8*** (0.4, 1.2)	-0.03***(-0.03, -0.02)	0.03*** (0.02, 0.04)
Anxiety	-1.7***(-2.2, -1.2)	0.6(-0.1, 1.4)	-0.02***(-0.03, -0.01)	0.04*** (0.02, 0.06)
Anger	-2.3***(-2.6, -2.1)	0.7*** (0.3, 1.1)	-0.009***(-0.01, -0.004)	0.01*(0.001, 0.02)
Sadness	-1.6***(-2.1, -1.1)	0.3(-0.4, 1.1)	-0.02***(-0.03, -0.008)	0.03** (0.01, 0.05)
Swearing Terms	-1.3***(-1.5, -1.1)	0.4*(0.07, 0.6)	-0.02***(-0.02, -0.01)	0.02*** (0.02, 0.03)
Tentativeness	-1.4***(-1.7, -1)	0.7*(0.2, 1.3)	-0.04***(-0.05, -0.03)	0.02*(0.001, 0.03)
Certainty	-0.5*(-1, -0.04)	0.5(-0.3, 1.2)	-0.005(-0.01, 0.005)	0.02*(0.001, 0.04)
Swearing (empath)	-1.4***(-1.7, -1.2)	0.6** (0.2, 0.9)	-0.03***(-0.03, -0.02)	0.02*** (0.01, 0.03)
science	2.5*** (2.2, 2.9)	-0.9**(-1.4, -0.3)	0.02*** (0.02, 0.03)	-0.04***(-0.05, -0.02)
Neg. Emotion (empath)	-2.1***(-2.3, -1.8)	0.9*** (0.5, 1.3)	-0.04***(-0.04, -0.03)	0.04*** (0.03, 0.05)
Pos. Emotion (empath)	0.4** (0.1, 0.8)	0.5*(-0.001, 1.1)	0(-0.007, 0.007)	-0.01(-0.02, 0.004)

Table 12: RDD parameters for aggregation on verbosity quartiles, most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	1.4*** (1, 1.7)	0.5(-0.1, 1)	0.006(-0.001, 0.01)	-0.03***(-0.04, -0.01)
Negative Emotions	-2.5***(-2.7, -2.3)	0.6*** (0.3, 1)	-0.02***(-0.02, -0.01)	0.02*** (0.01, 0.03)
Anxiety	-1.5***(-1.8, -1.2)	0.5(-0.004, 1.1)	-0.01**(-0.02, -0.004)	0.02*(0.002, 0.03)
Anger	-2.2***(-2.5, -2)	0.6*** (0.3, 1)	-0.006*(-0.01, -0.001)	0.006(-0.003, 0.02)
Sadness	-1.4***(-1.8, -1)	0.3(-0.3, 1)	-0.008(-0.02, 0)	0.01(-0.006, 0.03)
Swearing Terms	-1.2***(-1.3, -1)	0.2*(0.005, 0.5)	-0.01***(-0.02, -0.01)	0.02*** (0.01, 0.03)
Tentativeness	-0.8***(-1.1, -0.5)	0.2(-0.3, 0.8)	-0.03***(-0.04, -0.02)	0.03*** (0.01, 0.05)
Certainty	-0.4(-0.8, 0.02)	0.3(-0.3, 1)	-0.004(-0.01, 0.005)	0.02(0, 0.04)
Swearing (empath)	-1.2***(-1.4, -1)	0.3*(0.05, 0.6)	-0.02***(-0.02, -0.01)	0.01*** (0.007, 0.02)
science	2.3*** (2, 2.6)	-0.6*(-1.1, -0.06)	0.02*** (0.01, 0.03)	-0.03***(-0.04, -0.01)
Neg. Emotion (empath)	-1.9***(-2.1, -1.7)	0.7*** (0.3, 1)	-0.03***(-0.03, -0.02)	0.03*** (0.02, 0.04)
Pos. Emotion (empath)	0.5** (0.1, 0.8)	0.5*(0.004, 1.1)	-0(-0.007, 0.007)	-0.01(-0.02, 0.004)

Table 13: RDD parameters for aggregation on verbosity quartiles, excluding outliers, most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	0.4(-0.4, 1.1)	0.4(-0.8, 1.6)	0.008(-0.008, 0.02)	-0.04*(-0.07, -0.007)
Negative Emotions	-4.4***(-4.7, -4.1)	1*** (0.5, 1.5)	-0.04***(-0.04, -0.03)	0.05*** (0.03, 0.06)
Anxiety	-2.8***(-3.4, -2.2)	0.6(-0.3, 1.4)	-0.02***(-0.03, -0.007)	0.06*** (0.04, 0.08)
Anger	-3.6***(-3.9, -3.3)	0.6*(0.1, 1)	-0.01***(-0.02, -0.007)	0.02** (0.006, 0.03)
Sadness	-3.2***(-3.9, -2.4)	0.3(-0.9, 1.5)	-0.03***(-0.05, -0.01)	0.06*** (0.03, 0.1)
Swearing Terms	-1.6***(-1.9, -1.3)	0.4(-0.06, 0.9)	-0.02***(-0.02, -0.01)	0.01*(0, 0.03)
Tentativeness	0.8*(0.2, 1.5)	0.2(-0.9, 1.3)	-0.02***(-0.04, -0.009)	-0.02(-0.05, 0.006)
Certainty	-0.2(-1, 0.6)	-0.9(-2.2, 0.3)	0.007(-0.01, 0.02)	0.03(-0.002, 0.07)
Swearing (empath)	-1.6***(-2, -1.2)	0.4(-0.2, 1.1)	-0.02***(-0.03, -0.01)	0.02** (0.006, 0.04)
science	1.9*** (1.4, 2.4)	0.4(-0.4, 1.2)	0.01*(0.001, 0.02)	-0.04***(-0.06, -0.01)
Neg. Emotion (empath)	-2.4***(-2.7, -2)	0.8** (0.3, 1.4)	-0.03***(-0.04, -0.03)	0.03*** (0.02, 0.05)
Pos. Emotion (empath)	0.2(-0.3, 0.7)	0.9*(0.1, 1.7)	-0.002(-0.01, 0.008)	-0.01(-0.03, 0.01)

Table 14: RDD parameters for aggregation on verbosity quartiles, 2nd most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	1.3*** (0.7, 1.8)	-0.6(-1.4, 0.2)	0.02*** (0.01, 0.03)	-0.02(-0.04, 0.002)
Negative Emotions	-4.1***(-4.4, -3.8)	0.8** (0.3, 1.2)	-0.03***(-0.04, -0.02)	0.04*** (0.03, 0.05)
Anxiety	-2.6***(-3, -2.2)	0.9** (0.2, 1.5)	-0.02***(-0.03, -0.009)	0.03*** (0.01, 0.05)
Anger	-3.6***(-3.8, -3.3)	0.5*(0.06, 1)	-0.01***(-0.02, -0.005)	0.02** (0.005, 0.03)
Sadness	-2.5***(-3, -2)	0.9(-0.06, 1.9)	-0.02***(-0.03, -0.01)	0.03*(0.004, 0.05)
Swearing Terms	-1.5***(-1.7, -1.2)	0.3(-0.1, 0.7)	-0.01***(-0.02, -0.005)	0.007(-0.004, 0.02)
Tentativeness	0.5(-0.006, 1)	-0.3(-1.1, 0.5)	-0.01(-0.02, 0.001)	0.005(-0.02, 0.03)
Certainty	-0.3(-0.8, 0.2)	0.1(-0.7, 1)	-0.001(-0.01, 0.01)	0.006(-0.02, 0.03)
Swearing (empath)	-1.3***(-1.7, -1)	0.2(-0.4, 0.7)	-0.01***(-0.02, -0.006)	0.01(-0.002, 0.03)
science	2*** (1.6, 2.4)	-0.1(-0.8, 0.6)	0.01*(0.001, 0.02)	-0.02*(-0.04, -0.001)
Neg. Emotion (empath)	-2.2***(-2.5, -1.8)	0.6*(0.1, 1.2)	-0.03***(-0.03, -0.02)	0.03*** (0.01, 0.04)
Pos. Emotion (empath)	0.7** (0.3, 1.2)	0.3(-0.4, 1)	0.004(-0.006, 0.01)	-0.01(-0.03, 0.006)

Table 15: RDD parameters for aggregation on verbosity quartiles, excluding outliers, 2nd most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	1.1(-0.04, 2.3)	1.2(-0.7, 3.1)	0.01(-0.01, 0.04)	-0.06*(-0.1, -0.01)
Negative Emotions	-4.8***(-5.3, -4.3)	1*(0.2, 1.8)	-0.04***(-0.06, -0.03)	0.06***(-0.04, 0.08)
Anxiety	-2.9***(-3.8, -2)	0.6(-0.9, 2)	-0.03***(-0.04, -0.007)	0.07***(-0.03, 0.1)
Anger	-3.7***(-4.1, -3.2)	0.3(-0.4, 1)	-0.01***(-0.02, -0.004)	0.03***(-0.008, 0.05)
Sadness	-3.1***(-4.5, -1.8)	0.5(-1.7, 2.7)	-0.04***(-0.07, -0.01)	0.07*(0.009, 0.1)
Swearing Terms	-1.4***(-1.8, -1.1)	0.1(-0.5, 0.7)	-0.01***(-0.02, -0.007)	0.009(-0.006, 0.03)
Tentativeness	1.2**(-0.3, 2.1)	1(-0.4, 2.4)	-0.01(-0.03, 0.005)	-0.04*(-0.08, -0.006)
Certainty	0.04(-1.4, 1.5)	-0.7(-3, 1.6)	0.01(-0.02, 0.04)	-0.02(-0.08, 0.04)
Swearing (empath)	-1.4***(-1.9, -0.9)	-0.007(-0.9, 0.9)	-0.02***(-0.03, -0.009)	0.02(-0.001, 0.04)
science	2.1***(-1.3, 3)	-0.9(-2.2, 0.5)	0.02(-0.002, 0.04)	-0.01(-0.05, 0.02)
Neg. Emotion (empath)	-2.1***(-2.7, -1.6)	0.2(-0.7, 1.1)	-0.03***(-0.04, -0.02)	0.05***(-0.03, 0.07)
Pos. Emotion (empath)	1.3***(-0.5, 2.1)	1.1(-0.1, 2.4)	0.01(-0.007, 0.03)	-0.04*(-0.07, -0.007)

Table 16: RDD parameters for aggregation on verbosity quartiles, 3rd most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	1**(0.2, 1.7)	0.6(-0.5, 1.7)	0.004(-0.01, 0.02)	-0.02(-0.05, 0.006)
Negative Emotions	-4***(-4.4, -3.5)	0.7(-0.02, 1.4)	-0.02***(-0.04, -0.01)	0.03***(-0.008, 0.04)
Anxiety	-2.1***(-2.6, -1.6)	0.05(-0.8, 0.9)	-0.01(-0.02, 0)	0.03*(-0.006, 0.05)
Anger	-3.2***(-3.6, -2.7)	-0.02(-0.7, 0.7)	-0.005(-0.01, 0.003)	0.01(-0.006, 0.03)
Sadness	-1*(-1.8, -0.2)	-1.7***(-2.9, -0.4)	0.008(-0.009, 0.03)	0.02(-0.01, 0.05)
Swearing Terms	-1.3***(-1.7, -0.9)	-0.04(-0.6, 0.5)	-0.01***(-0.02, -0.003)	0.006(-0.009, 0.02)
Tentativeness	0.7**(-0.2, 1.3)	0.1(-0.8, 1)	-0.009(-0.02, 0.003)	-0.005(-0.03, 0.02)
Certainty	0.2(-0.5, 1)	-0.4(-1.7, 1)	0.004(-0.01, 0.02)	-0.01(-0.04, 0.02)
Swearing (empath)	-1.6***(-2.1, -1.2)	0.09(-0.6, 0.8)	-0.02***(-0.03, -0.009)	0.03***(-0.008, 0.05)
science	2***(-1.5, 2.5)	-0.7(-1.6, 0.2)	0.01*(0.003, 0.03)	-0.01(-0.04, 0.01)
Neg. Emotion (empath)	-1.6***(-2, -1.1)	-0.04(-0.8, 0.7)	-0.01*(-0.02, -0.002)	0.02*(-0.001, 0.04)
Pos. Emotion (empath)	1.3***(-0.7, 1.8)	-0.6(-1.6, 0.3)	0.009(-0.003, 0.02)	-0.003(-0.03, 0.02)

Table 17: RDD parameters for aggregation on verbosity quartiles, excluding outliers, 3rd most verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	2.9**(-0.9, 4.9)	-0.1(-3.3, 3.1)	0.04*(0.001, 0.09)	-0.1**(-0.2, -0.03)
Negative Emotions	-3.6***(-4.8, -2.3)	-0.1(-2.1, 1.8)	-0.02(-0.04, 0.01)	0.02(-0.03, 0.07)
Anxiety	-2.4*(-4.3, -0.5)	-0.3(-3.4, 2.7)	-0.02(-0.06, 0.02)	0.05(-0.03, 0.1)
Anger	-3.5***(-4.7, -2.3)	0.4(-1.5, 2.4)	-0.02(-0.04, 0.008)	0.03(-0.02, 0.08)
Sadness	-1.2(-4.5, 2.2)	-1.3(-6.7, 4.1)	-0.008(-0.08, 0.06)	0.04(-0.1, 0.2)
Swearing Terms	-1.1(-2.5, 0.4)	0.7(-1.7, 3)	-0.02(-0.05, 0.01)	0.02(-0.04, 0.08)
Tentativeness	0.7(-1.5, 2.9)	-0.2(-3.7, 3.3)	-0.02(-0.06, 0.03)	-0.002(-0.09, 0.09)
Certainty	1.2(-2.1, 4.6)	2.5(-2.9, 7.8)	-0.002(-0.07, 0.07)	-0.08(-0.2, 0.06)
Swearing (empath)	-1.9*(-3.7, -0.07)	1.5(-1.4, 4.4)	-0.02(-0.06, 0.02)	0.001(-0.07, 0.08)
science	4***(-1.6, 6.4)	-3.3(-7.2, 0.6)	0.04(-0.008, 0.1)	-0.05(-0.1, 0.05)
Neg. Emotion (empath)	-2.3***(-3.6, -0.9)	1(-1.1, 3.2)	-0.02(-0.05, 0.005)	0.02(-0.04, 0.08)
Pos. Emotion (empath)	2.5**(-0.7, 4.3)	0.5(-2.4, 3.4)	0.02(-0.02, 0.06)	-0.06(-0.1, 0.01)

Table 18: RDD parameters for aggregation on verbosity quartiles, least verbose quartile of politicians.

	α_0	α	β_0	β
Positive Emotions	0.8(-0.1, 1.7)	-0.6(-2.1, 1)	0.003(-0.02, 0.02)	-0.003(-0.05, 0.04)
Negative Emotions	-2.8***(-3.5, -2.2)	-0.9(-2.3, 0.4)	-0.003(-0.02, 0.01)	0.03(-0.006, 0.06)
Anxiety	-1.7***(-2.7, -0.7)	0.2(-1.3, 1.6)	0.002(-0.02, 0.02)	-0.003(-0.04, 0.03)
Anger	-2.6***(-3.5, -1.7)	0.06(-1.3, 1.4)	0.004(-0.01, 0.02)	-0.001(-0.03, 0.03)
Sadness	-1.7***(-2.5, -0.9)	1.1(-0.09, 2.3)	-0.01(-0.03, 0.008)	-0.02(-0.05, 0.02)
Swearing Terms	-1.4***(-2, -0.8)	0.2(-0.9, 1.3)	-0.003(-0.02, 0.01)	-0.004(-0.03, 0.02)
Tentativeness	0.3(-0.5, 1)	1.1(-0.1, 2.4)	-0.005(-0.02, 0.01)	-0.02(-0.05, 0.02)
Certainty	0.3(-1.1, 1.6)	-0.8(-2.7, 1)	0.001(-0.03, 0.03)	-0(-0.05, 0.05)
Swearing (empath)	-1.3**(-2.2, -0.5)	-0.2(-1.7, 1.4)	-0.006(-0.02, 0.01)	0.005(-0.03, 0.04)
science	2.3*** (1.3, 3.2)	-0.4(-2, 1.2)	0.02(-0.002, 0.04)	-0.01(-0.06, 0.03)
Neg. Emotion (empath)	-1.1***(-1.7, -0.4)	-0.5(-1.5, 0.5)	0.004(-0.01, 0.02)	-0.008(-0.04, 0.02)
Pos. Emotion (empath)	1.4*** (0.6, 2.3)	-0.04(-1.8, 1.8)	0.009(-0.008, 0.03)	-0.03(-0.08, 0.02)

Table 19: RDD parameters for aggregation on verbosity quartiles, excluding outliers, least verbose quartile of politicians.

Top N words	Anger	Anxiety	Certainty	Negative Emotions	Positive Emotions	Sadness	Swearing Terms	Tentativeness
1	fight.*?: 7.75%	risk.*?: 10.84%	all: 23.51%	problem.*?: 4.35%	like: 5.70%	low.*?: 10.86%	hell: 17.18%	or: 13.51%
2	attack.*?: 4.96%	terror.*?: 8.29%	every: 6.74%	numb.*?: 3.20%	good: 4.23%	fail.*?: 9.83%	damn.*?: 8.85%	if: 13.40%
3	threat.*?: 4.91%	worr.*?: 5.89%	never: 5.19%	fight.*?: 2.69%	well.*?: 2.93%	lost: 7.37%	heck: 6.73%	some: 8.67%
4	cut: 4.87%	struggl.*?: 5.22%	sure.*?: 4.93%	low.*?: 2.11%	great: 2.71%	hurt.*?: 5.22%	screw.*?: 6.63%	lot: 6.24%
5	war: 4.83%	pressur.*?: 5.16%	always: 4.61%	bad: 1.93%	importan.*?: 2.47%	lose: 5.11%	dumb.*?: 6.44%	any: 6.20%
6	defens.*?: 4.20%	doubt.*?: 4.44%	must: 3.43%	fail.*?: 1.91%	better: 2.22%	loss.*?: 4.24%	dick: 6.16%	most: 4.57%
7	kill.*?: 4.03%	avoid.*?: 4.17%	certain.*?: 3.40%	difficult.*?: 1.87%	support: 2.08%	disappoint.*?: 4.13%	ass: 4.93%	something.*?: 4.13%
8	critical: 3.71%	fear: 3.51%	committ.*?: 3.07%	tough.*?: 1.79%	care: 2.06%	damag.*?: 3.88%	shit.*?: 4.82%	may: 2.83%
9	danger.*?: 3.10%	horr.*?: 2.51%	everything.*?: 2.98%	wrong.*?: 1.77%	best: 1.94%	alone: 2.88%	crap: 3.39%	kind (of): 2.35%
10	weapon.*?: 2.63%	overwhelm.*?: 2.47%	ever: 2.94%	risk.*?: 1.73%	sure.*?: 1.81%	losing: 2.61%	fuck: 3.05%	question.*?: 2.24%
11	argu.*?: 2.45%	vulnerab.*?: 2.38%	clear: 2.81%	attack.*?: 1.73%	opportun.*?: 1.78%	overwhelm.*?: 2.03%	fuckin.*?: 2.92%	anything: 2.13%
12	victim.*?: 2.22%	afraid: 2.34%	fact: 2.73%	threat.*?: 1.71%	interest.*?: 1.58%	devastat.*?: 2.02%	butt: 2.85%	hope: 2.04%
13	violat.*?: 2.20%	craz.*?: 2.34%	everybod.*?: 2.09%	cut: 1.69%	strong.*?: 1.52%	defeat.*?: 1.95%	bitch.*?: 2.74%	possib.*?: 1.91%
14	battl.*?: 2.02%	uncertain.*?: 2.18%	obvious.*?: 1.67%	war: 1.68%	safe.*?: 1.48%	miss: 1.91%	dam: 2.68%	someone.*?: 1.75%
15	offens.*?: 1.99%	desperat.*?: 1.98%	commitment.*?: 1.64%	serious: 1.50%	secur.*?: 1.45%	traged.*?: 1.90%	bloody: 2.28%	pretty: 1.67%
Total nr Expressions	184	91	83	499	408	101	53	156
Total Matches	2029989	929090	4987728	5836334	13579160	1132197	103306	7786065

Table 20: The most common 15 words for each sentiment category, before 15 June 2015. Bold values deviate from the other period by more than one percentage point.

Top N words	Anger	Anxiety	Certainty	Negative Emotions	Positive Emotions	Sadness	Swearing Terms	Tentativeness
1	fight.*?: 9.20%	risk.*?: 10.83%	all: 23.19%	problem.*?: 3.80%	like: 5.97%	low.*?: 11.06%	hell: 24.15%	or: 15.01%
2	threat.*?: 5.71%	terror.*?: 8.87%	every: 6.80%	fight.*?: 3.38%	good: 4.05%	fail.*?: 9.02%	damn.*?: 11.46%	if: 9.70%
3	attack.*?: 5.41%	worr.*?: 5.50%	never: 5.45%	numb.*?: 3.03%	great: 2.96%	lost: 6.90%	dumb.*?: 7.11%	some: 8.41%
4	critical: 3.90%	pressur.*?: 4.95%	sure.*?: 5.26%	threat.*?: 2.10%	importan.*?: 2.68%	hurt.*?: 5.40%	screw.*?: 6.68%	lot: 6.99%
5	danger.*?: 3.80%	struggl.*?: 4.27%	always: 4.64%	low.*?: 2.05%	well.*?: 2.68%	lose: 4.96%	heck: 6.10%	any: 6.50%
6	kill.*?: 3.60%	horr.*?: 4.26%	must: 3.76%	attack.*?: 1.99%	better: 2.30%	damag.*?: 4.21%	shit.*?: 4.70%	something.*?: 4.86%
7	war: 3.59%	fear: 4.02%	certain.*?: 3.28%	bad: 1.95%	support: 2.25%	loss.*?: 3.79%	ass: 4.48%	most: 4.66%
8	defens.*?: 2.94%	doubt.*?: 3.91%	ever: 3.27%	risk.*?: 1.78%	sure.*?: 2.02%	disappoint.*?: 3.72%	crap: 3.42%	may: 2.69%
9	weapon.*?: 2.81%	vulnerab.*?: 3.42%	clear: 3.00%	wrong.*?: 1.77%	safe.*?: 2.02%	alone: 2.90%	dam: 2.75%	question.*?: 2.50%
10	cut: 2.80%	avoid.*?: 3.21%	everything.*?: 2.91%	fail.*?: 1.67%	best: 1.94%	devastat.*?: 2.58%	fuckin.*?: 2.49%	kind (of): 2.47%
11	victim.*?: 2.74%	craz.*?: 2.55%	committ.*?: 2.84%	terror.*?: 1.46%	care: 1.90%	traged.*?: 2.33%	bitch.*?: 2.46%	hope: 2.23%
12	abuse.*?: 2.41%	overwhelm.*?: 2.38%	fact: 2.69%	difficult.*?: 1.43%	opportun.*?: 1.89%	losing: 2.32%	piss.*?: 2.41%	anything: 2.20%
13	violat.*?: 2.27%	afraid: 2.34%	everybod.*?: 1.83%	critical: 1.43%	strong.*?: 1.64%	defeat.*?: 2.30%	butt: 2.39%	possib.*?: 2.09%
14	hate: 1.94%	shame.*?: 1.95%	entire.*?: 1.71%	tough.*?: 1.43%	secur.*?: 1.48%	sad: 2.19%	bloody: 2.17%	someone.*?: 1.89%
15	argu.*?: 1.87%	shy.*?: 1.87%	commitment.*?: 1.61%	danger.*?: 1.39%	interest.*?: 1.44%	overwhelm.*?: 2.11%	suck: 2.17%	probably: 1.63%
Total nr Expressions	184	91	83	499	408	101	53	156
Total Matches	1373636	615580	3187841	3740676	8275450	692956	53915	4404308

Table 21: The most common 15 words for each sentiment category, after 15 June 2015. Bold values deviate from the other period by more than one percentage point.

	KL Divergence
Anger	0.036965
Anxiety	0.025344
Certainty	0.004131
Negative Emotions	0.026467
Positive Emotions	0.013651
Sadness	0.014523
Swearing Terms	0.140172
Tentativeness	0.010683

Table 22: Kullback-Leibler Divergence for the word distribution within the Categories, before and after 15 June 2015.