

Chen and Ash

Final Version of Figures

Nov 2nd 2018

This markdown is for Chen and Ash figures.

Chen and Ash 1

K-means clustering with outlier detection

Beginning k-means-- clustering

.....

Clustering complete in 26 iterations.

k = 13 l = 200 Cluster sizes: 157 137 138 114 168 124 135 177 155
(between cluster sum sqr / total sum sqr = 94.95849 %)

Centroids:

	x	y
[1,]	-4.1825295	-16.7719244
[2,]	-12.3639337	14.0565353
[3,]	-6.5609265	-26.8265502
[4,]	11.4710890	25.1964546
[5,]	-26.3974160	1.1379560
[6,]	3.8553559	32.4521504
[7,]	13.0452569	8.9438719
[8,]	14.9050558	-26.7638016
[9,]	-0.8647111	20.7788364
[10,]	21.5700876	-1.5182301
[11,]	1.4261053	-0.7643166
[12,]	-18.8347428	-7.0199746
[13,]	14.5682286	-14.2033535

Outliers:

A tibble: 200 x 2

	x	y
	<dbl>	<dbl>
1	-32.3	40.7
2	-31.4	40.9
3	-31.8	40.5
4	-31.8	40.3
5	-31.2	40.1
6	-31.3	39.9
7	-31.3	39.7
8	-30.9	40.0
9	-30.9	39.9
10	-31.0	39.8

```
# ... with 190 more rows
```

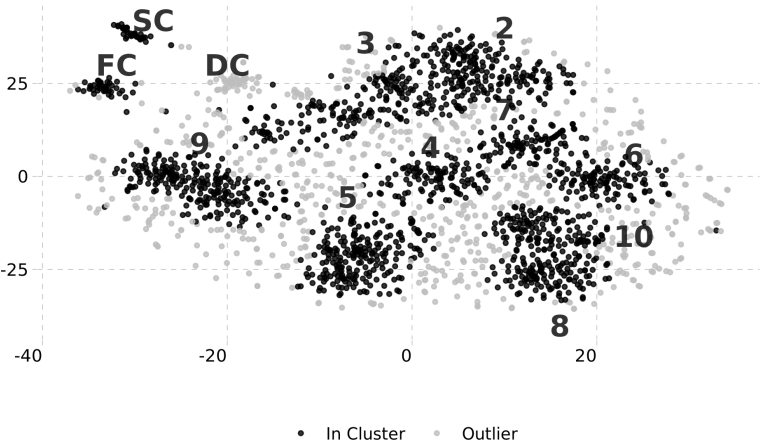
```
Available components:
```

[1]	"k"	"l"	"C"
[4]	"C_sizes"	"C_ss"	"L"
[7]	"L_dist_sqr"	"L_index"	"XC_dist_sqr_assign"
[10]	"within_ss"	"between_ss"	"tot_ss"
[13]	"iterations"		

finished computing clusters (ignore R output)

Figure 1: Centered by Topic-Year, Averaged by Judge.

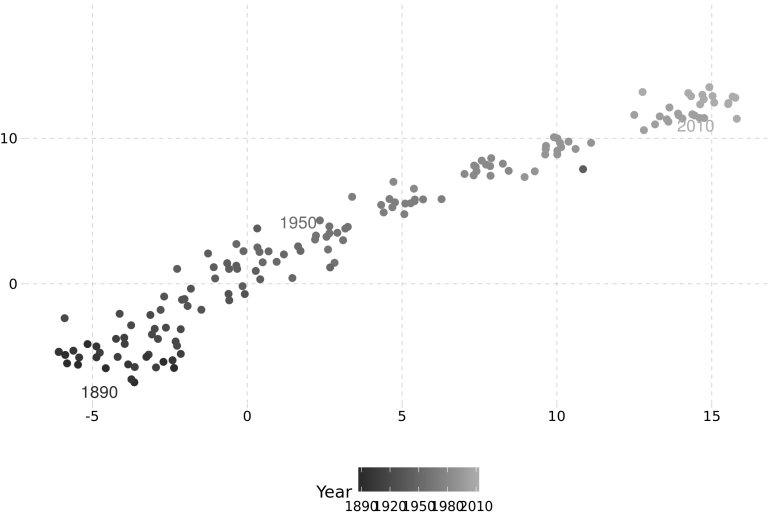
Circuit, CC Judge Vector, Demeaned by Year and Big Topic



Chen and Ash 2

Figure 2.

Centered by Court Topic, Averaged by Court-Year, Labeled by Decade



Court Decade, SC & CC Court Decade Vector, Demeaned by Circuit and Big Topic

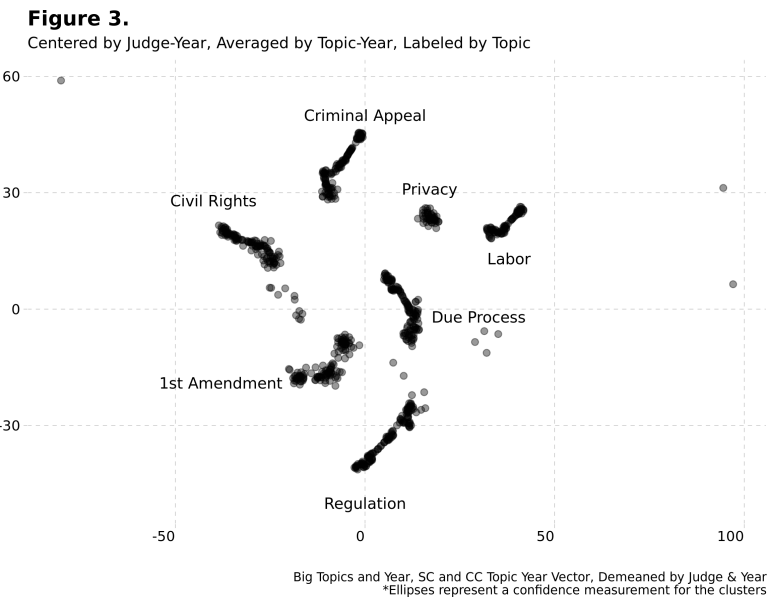


Figure 4.

Centered by Court-Topic-Year, Averaged by Judge, Labeled by Political Party

