

Visualization of tagged data

The report contains the following visualizations.

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6. Heatmap of tagwise hierarchical clustering
7. Clusters among objects (using kmeans)
8. Clusters among tags (using kmeans)
9. Number of tags shared by objects
10. Number of objects shared by tags

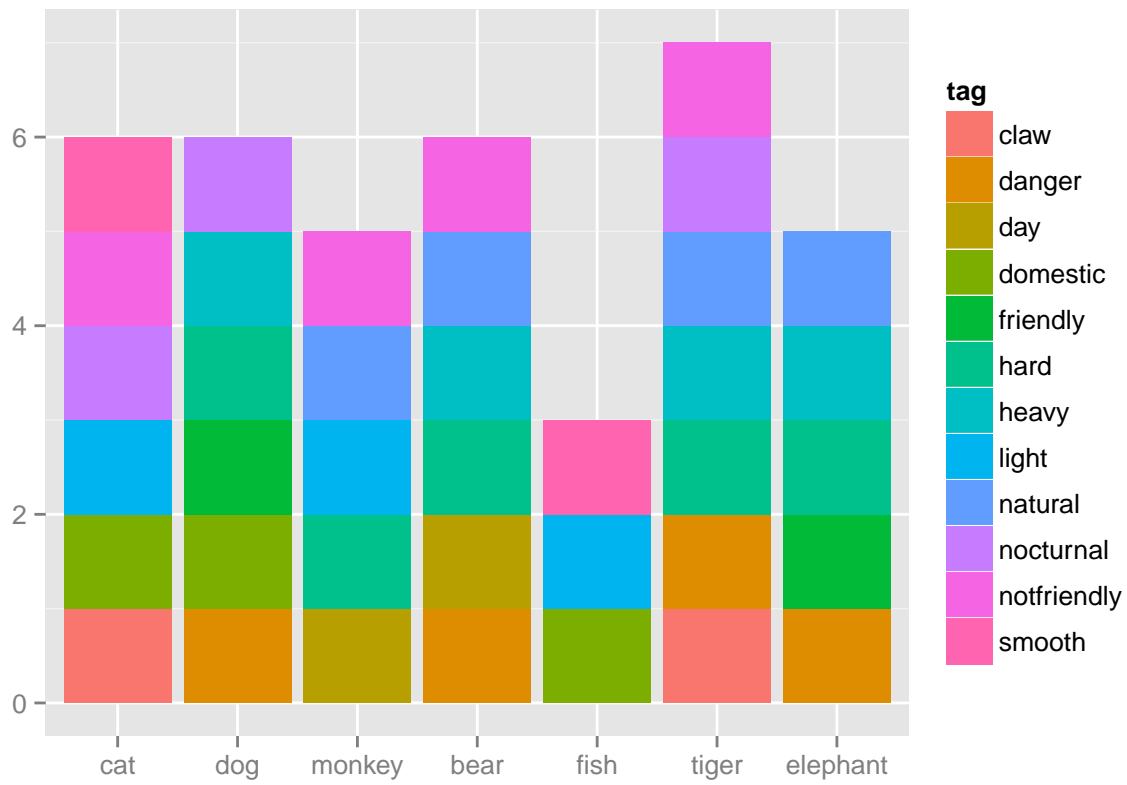
The objects are:

```
## [1] "cat"      "dog"      "monkey"   "bear"     "fish"     "tiger"
## [7] "elephant"
```

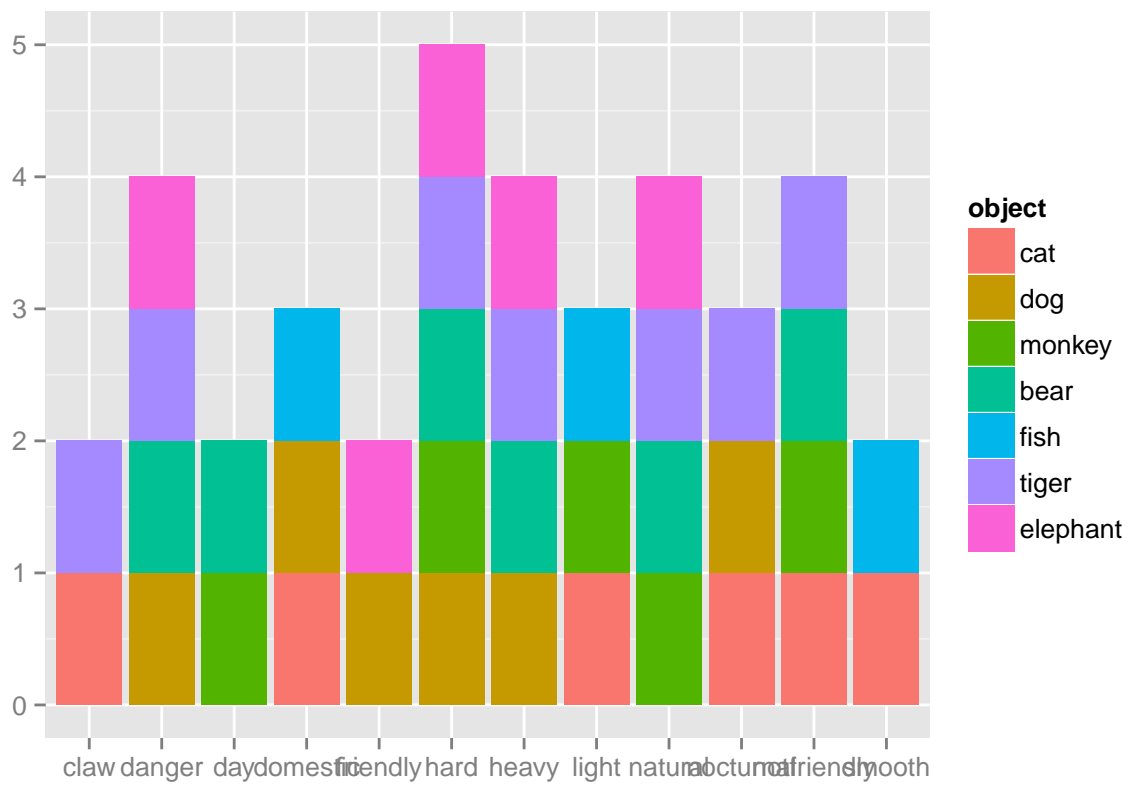
The tags are:

```
## [1] "claw"      "danger"    "day"       "domestic"  "friendly"
## [6] "hard"      "heavy"     "light"     "natural"   "nocturnal"
## [11] "notfriendly" "smooth"
```

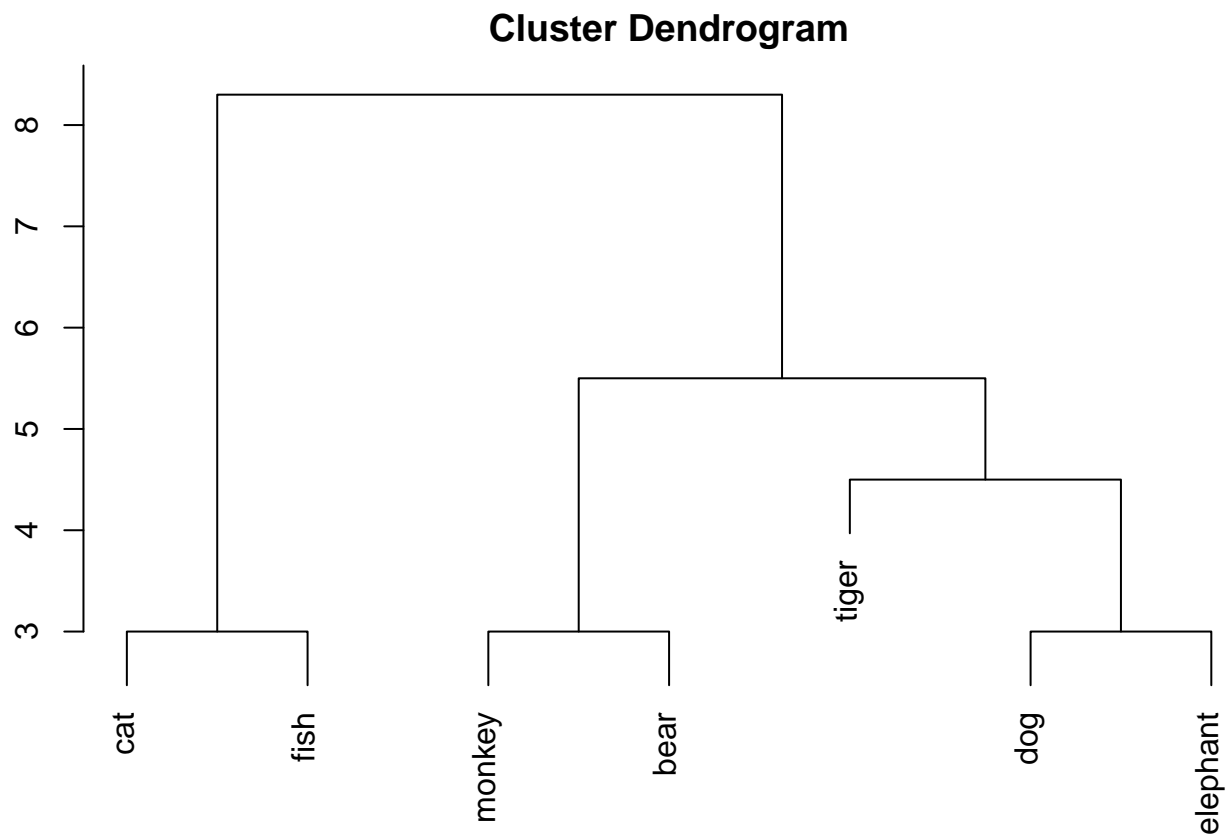
Visualizing objects versus tags



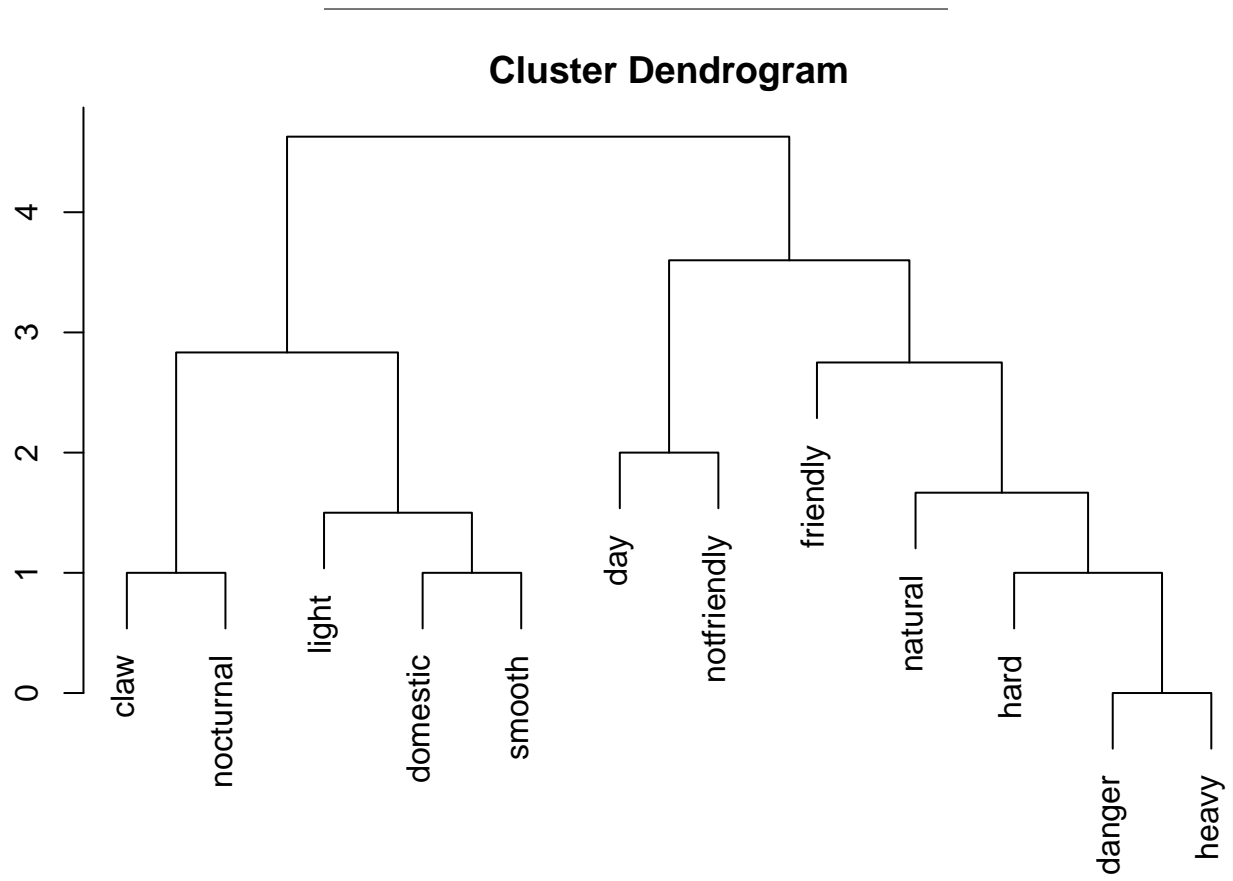
Visualizing tags versus objects



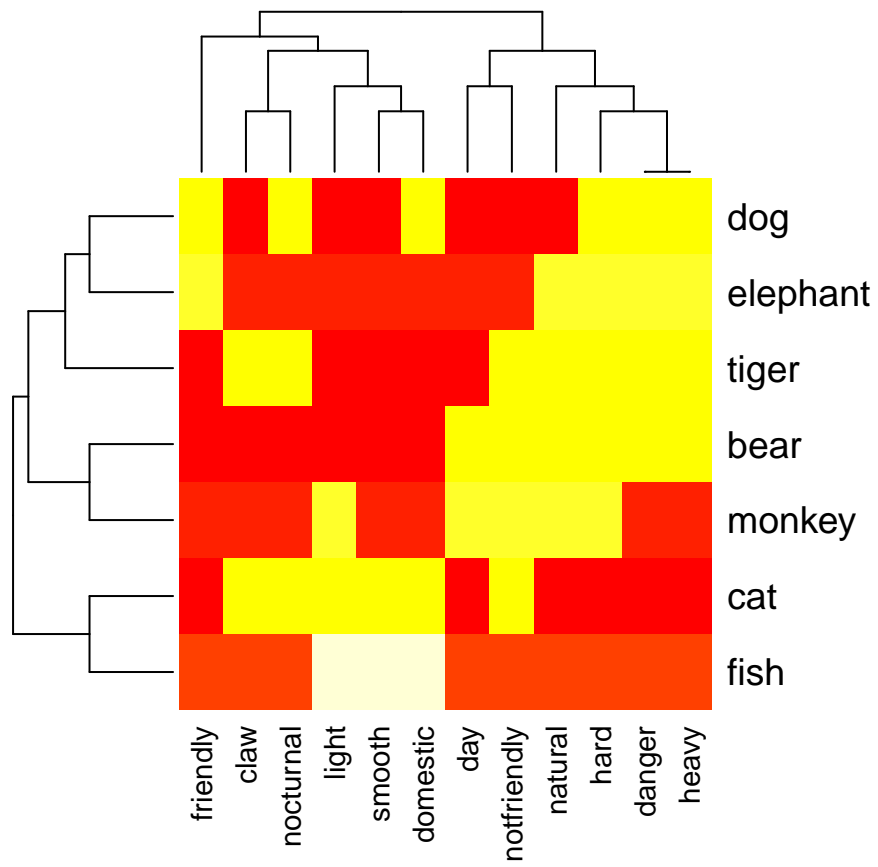
Hierarchical object clustering



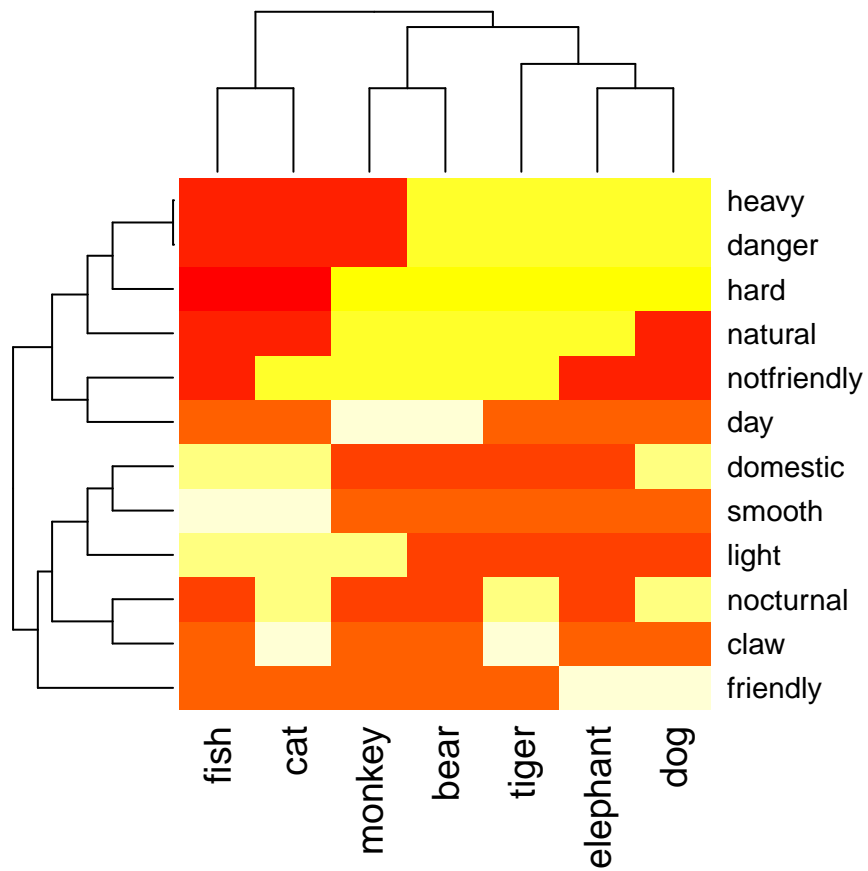
Hierarchical tag clustering



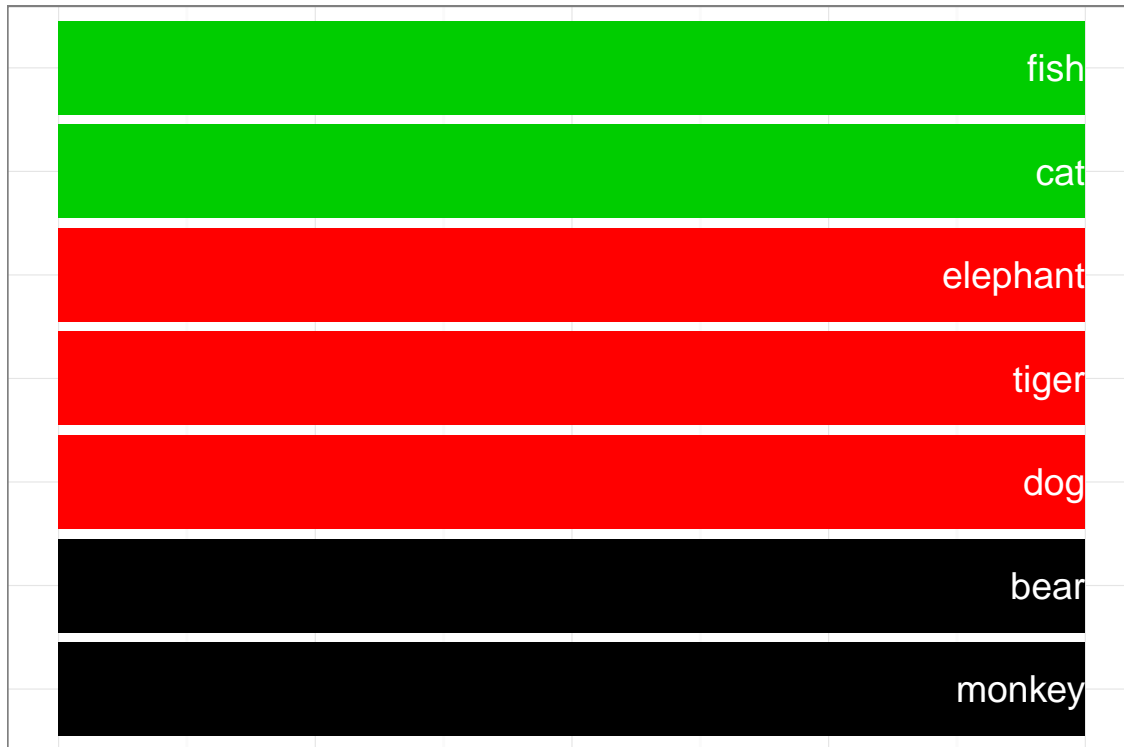
Heatmap of objectwise hierarchical clustering



Heatmap of tagwise hierarchical clustering



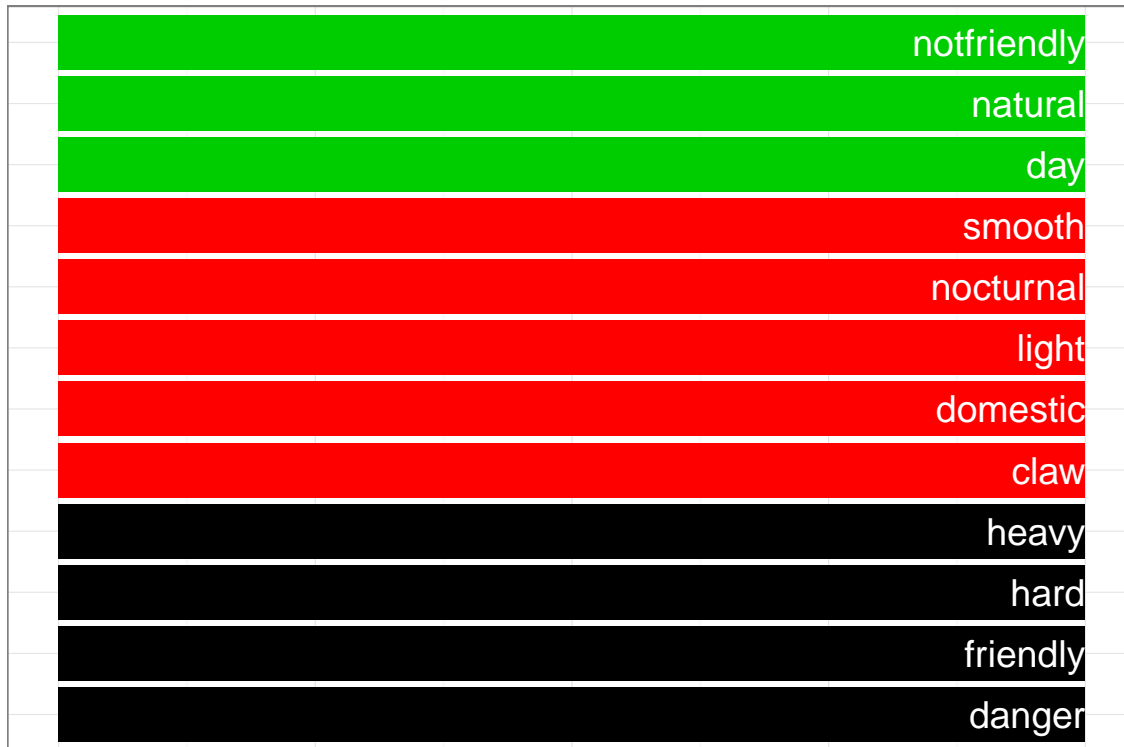
Clusters among objects (using kmeans)



```
## The clusters are:
```

```
## $`1`  
## [1] "monkey" "bear"  
##  
## $`2`  
## [1] "dog"      "tiger"    "elephant"  
##  
## $`3`  
## [1] "cat"     "fish"
```

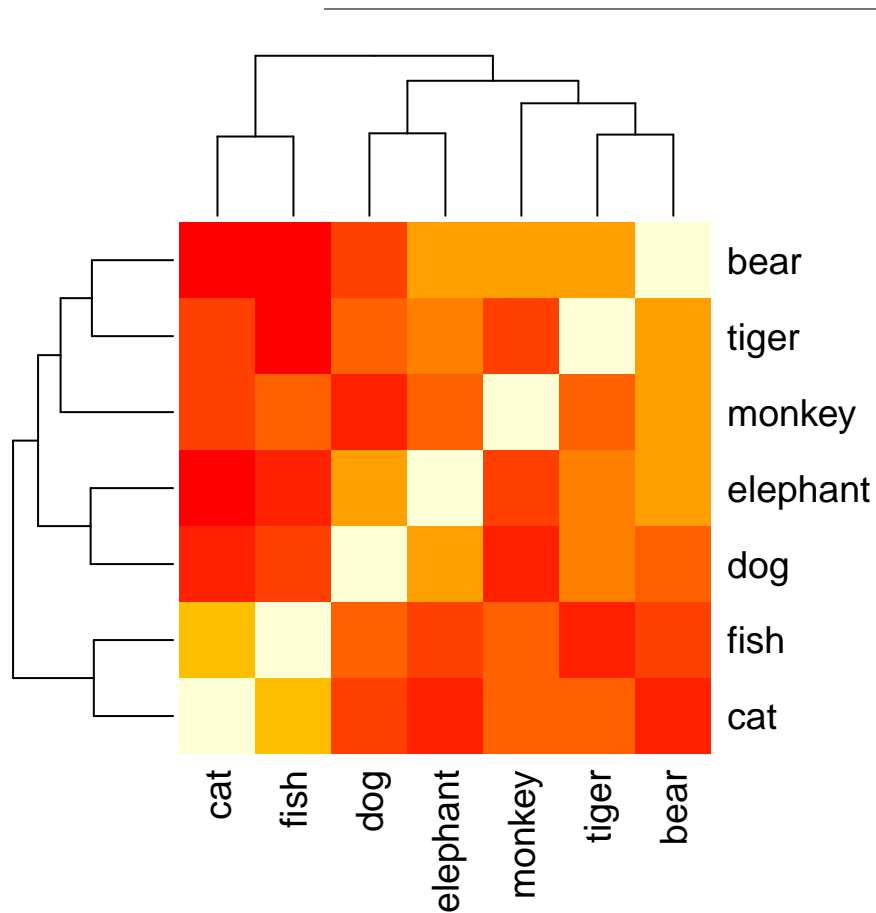

Clusters among tags (using kmeans)



The clusters are:

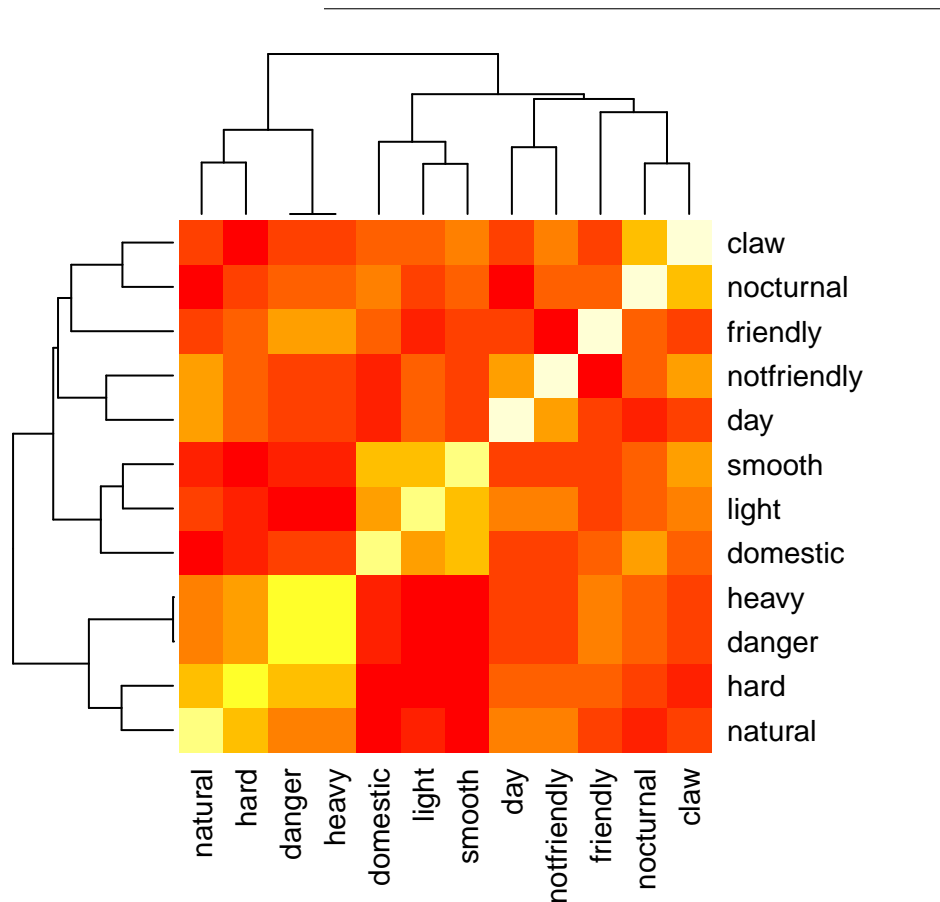
```
## $`1`  
## [1] "danger"    "friendly"  "hard"      "heavy"  
##  
## $`2`  
## [1] "claw"      "domestic"  "light"     "nocturnal" "smooth"  
##  
## $`3`  
## [1] "day"       "natural"   "notfriendly"
```

Number of tags shared by objects



```
##          cat      dog      monkey      bear      fish      tiger
## cat      12.000000  9.171573  9.354249  8.837722 10.267949  9.354249
## dog      9.171573 12.000000  9.000000  9.550510  9.354249  9.763932
## monkey   9.354249  9.000000 12.000000 10.267949  9.550510  9.550510
## bear      8.837722  9.550510 10.267949 12.000000  9.000000 10.267949
## fish     10.267949  9.354249  9.550510  9.000000 12.000000  8.837722
## tiger     9.354249  9.763932  9.550510 10.267949  8.837722 12.000000
## elephant  8.683375 10.267949  9.550510 10.267949  9.171573 10.000000
##
## elephant
## cat      8.683375
## dog      10.267949
## monkey   9.550510
## bear     10.267949
## fish      9.171573
## tiger    10.000000
## elephant 12.000000
```

Number of objects shared by tags



##	claw	danger	day	domestic	friendly	hard	heavy
## claw	7.000000	5.000000	5.000000	5.267949	5.000000	4.763932	5.000000
## danger	5.000000	7.000000	5.000000	4.763932	5.585786	6.000000	7.000000
## day	5.000000	5.000000	7.000000	4.763932	5.000000	5.267949	5.000000
## domestic	5.267949	4.763932	4.763932	7.000000	5.267949	4.550510	4.763932
## friendly	5.000000	5.585786	5.000000	5.267949	7.000000	5.267949	5.585786
## hard	4.763932	6.000000	5.267949	4.550510	5.267949	7.000000	6.000000
## heavy	5.000000	7.000000	5.000000	4.763932	5.585786	6.000000	7.000000
## light	5.267949	4.354249	5.267949	5.585786	4.763932	4.550510	4.354249
## natural	5.000000	5.585786	5.585786	4.354249	5.000000	6.000000	5.585786
## nocturnal	6.000000	5.267949	4.763932	5.585786	5.267949	5.000000	5.267949
## notfriendly	5.585786	5.000000	5.585786	4.763932	4.550510	5.267949	5.000000
## smooth	5.585786	4.550510	5.000000	6.000000	5.000000	4.354249	4.550510
##	light	natural	nocturnal	notfriendly	smooth		
## claw	5.267949	5.000000	6.000000	5.585786	5.585786		
## danger	4.354249	5.585786	5.267949	5.000000	4.550510		
## day	5.267949	5.585786	4.763932	5.585786	5.000000		
## domestic	5.585786	4.354249	5.585786	4.763932	6.000000		
## friendly	4.763932	5.000000	5.267949	4.550510	5.000000		
## hard	4.550510	6.000000	5.000000	5.267949	4.354249		
## heavy	4.354249	5.585786	5.267949	5.000000	4.550510		
## light	7.000000	4.763932	5.000000	5.267949	6.000000		

## natural	4.763932	7.000000	4.763932	5.585786	4.550510
## nocturnal	5.000000	4.763932	7.000000	5.267949	5.267949
## notfriendly	5.267949	5.585786	5.267949	7.000000	5.000000
## smooth	6.000000	4.550510	5.267949	5.000000	7.000000

The document with visualizations was generated using the code from the project **Analyzing tagged data**
(<https://github.com/talegari/analyzing-tagged-data>)
