

plague_sent_anal

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```
library(tidyverse)
```

```
## -- Attaching packages -----
```

```
## v ggplot2 3.3.2    v purrr  0.3.4
## v tibble  3.0.2    v dplyr  1.0.0
## v tidyr   1.1.1    v stringr 1.4.0
## v readr   1.3.1    v forcats 0.5.0
```

```
## -- Conflicts -----
```

```
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(tidytext)
library(janeaustenr)
library(stringr)
library(readtext)
library(readr)
library(summarytools)
```

```
## Registered S3 method overwritten by 'pryr':
##   method      from
##   print.bytes Rcpp
```

```
## For best results, restart R session and update pander using devtools:: or remotes::install_github('r')
```

```
##
```

```
## Attaching package: 'summarytools'
```

```
## The following object is masked from 'package:tibble':
```

```
##
```

```
##   view
```

```
library(data.table)
```

```
##
```

```
## Attaching package: 'data.table'
```

```
## The following objects are masked from 'package:dplyr':
##
##   between, first, last
```

```
## The following object is masked from 'package:purrr':
##
##   transpose
```

```
library(wesanderson)
```

```
plague <- read.csv("plague_by_part_by_word.csv") %>% rename(no_punct = new_column) %>% drop_na(no_punct)
plague <- plague %>% subset(no_punct != "")
```

```
# p2 <- read.csv("df2.csv")
# p3 <- read.csv("df3.csv")
# p4 <- read.csv("df4.csv")
# p5 <- read.csv("df5.csv")
nrc <- get_sentiments("nrc") %>% rename(no_punct = word)
bing <- get_sentiments("bing") %>% rename(no_punct = word)
afin <- get_sentiments("afin") %>% rename(no_punct = word)
```

```
#plague %>% filter(Word == "plague" | Word == "Plague") %>% ggplot(aes(x = count)) + geom_histogram()
```

```
plague <- plague%>% left_join(nrc, by = "no_punct")
plague <- plague%>% left_join(bing, by = "no_punct")
plague <- plague%>% left_join(afin, by = "no_punct")
plague <- plague %>% rename(nrc_sent = sentiment.x, afin_sent = sentiment.y)
# total5_sent$rows <- total5_sent%>% row.names()
# p1_sent <- p1 %>% left_join(sents, by = "Word")
# p2_sent <- p2 %>% left_join(sents, by = "Word")
# p3_sent <- p3 %>% left_join(sents, by = "Word")
# p4_sent <- p4 %>% left_join(sents, by = "Word")
# p5_sent <- p5 %>% left_join(sents, by = "Word")
# p1_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment != "negative") %>% ggplot((a
# p2_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment != "negative") %>% ggplot((a
# p3_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment != "negative") %>% ggplot((a
# p4_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment != "negative") %>% ggplot((a
# p5_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment != "negative") %>% ggplot((a
# total5_sent_filtered <- total5_sent %>% filter(!is.na(sentiment), sentiment != "positive", sentiment
# total5_sent_filtered$num <- total5_sent_filtered %>% row.names() %>% as.numeric()
# total5_sent_filtered %>% ggplot(aes(x = num))+ geom_histogram(bins = 50) + facet_wrap(~sentiment) +sc
```

```
think <- c(
  "think",
  "consider",
  "determine",
  "expect",
  "feel",
  "guess",
  "judge",
  "realize",
  "see",
```

```

"take",
"understand",
"comprehend",
"conceive",
"conclude",
"credit",
"deem",
"envisage",
"envision",
"esteem",
"estimate",
"fancy",
"feature",
"foresee",
"gather",
"hold",
"image
imagine",
"presume",
"project",
"reckon",
"regard",
"sense",
"suppose",
"surmise",
"suspect",
"vision",
"visualize"
) %>% as.data.frame() %>% rename(no_punct = ".")
think$thought = rep("think", nrow(think))
plague <- plague %>% left_join(think, by = "no_punct")
# total5_think %>% filter(!is.na(thought)) %>% ggplot(aes(x = rows)) + geom_histogram(bins = 20)

```

```

selfish <- c("egotistical",
"greedy",
"narcissistic",
"self-centered",
"egocentric",
"egoistic",
"egoistical",
"egomaniacal",
"egotistic",
"hoggish",
"mean",
"mercenary",
"miserly",
"narrow",
"parsimonious",
"prejudiced",
"self-indulgent",
"self-interested",
"self-seeking",
"stingy",

```

```

"ungenerous",
"think") %>% as.data.frame() %>% rename(no_punct = ".")
selfish$selfish <- rep("selfish", nrow(selfish))
plague <- plague %>% left_join(selfish, by = "no_punct")
# total5_selfish <- total5 %>% left_join(selfish, by = "Word")
# total5_selfish %>% filter(!is.na(selfish)) %>% ggplot(aes(x = rows)) + geom_histogram(bins = 20)

```

```

love <- c("love",
  "affection",
  "appreciation",
  "devotion",
  "emotion",
  "fondness",
  "friendship",
  "infatuation",
  "lust",
  "passion",
  "respect",
  "taste",
  "tenderness",
  "yearning",
  "adulation",
  "allegiance",
  "amity",
  "amorousness",
  "amour",
  "ardor",
  "attachment",
  "case",
  "cherishing",
  "crush",
  "delight",
  "devotedness",
  "enchantment",
  "enjoyment",
  "fervor",
  "fidelity",
  "flame",
  "hankering",
  "idolatry",
  "inclination",
  "involvement",
  "like",
  "partiality",
  "piety",
  "rapture",
  "regard",
  "relish",
  "sentiment",
  "weakness",
  "worship",
  "zeal",
  "ardency") %>% as.data.frame() %>% rename(no_punct = ".")

```

```
love$love <- rep("love", nrow(love))  
# total5_love <- total5 %>% left_join(love, by = "no_punct")  
# total5_love %>% filter(!is.na(love)) %>% ggplot(aes(x = rows)) + geom_histogram()  
plague <- plague %>% left_join(love, by = "no_punct")
```

```

{r} # # total5_sent_freq_part_1 <- total5_sent %>%filter(part
== "part_1") %>% freq(sentiment) %>% as.data.frame() %>% rename(percent_
= "% Total", percent_valid = "% Valid", percent_valid_cum = "%
Valid Cum.", percent_total_cum = "% Total Cum.") %>% setattr("row.names",
c("anger",          "anticipation", "disgust",          "fear",          "joy",
"negative",         "positive",      "sadness",         "surprise",
"trust",   "non_avail",          "Total")) # # total5_sent_freq_part_2
<- total5_sent %>%filter(part == "part_2") %>% freq(sentiment)
%>% as.data.frame() %>% rename(percent_total = "% Total", percent_valid
= "% Valid", percent_valid_cum = "% Valid Cum.", percent_total_cum
= "% Total Cum.") %>% setattr("row.names", c("anger",          "anticipat
"disgust",          "fear",          "joy",          "negative",
"positive",         "sadness",        "surprise",        "trust", "non_avail",
"Total")) # # total5_sent_freq_part_3<- total5_sent %>%filter(part
== "part_3") %>% freq(sentiment) %>% as.data.frame() %>% rename(percent_
= "% Total", percent_valid = "% Valid", percent_valid_cum = "%
Valid Cum.", percent_total_cum = "% Total Cum.") %>% setattr("row.names",
c("anger",          "anticipation", "disgust",          "fear",          "joy",
"negative",         "positive",      "sadness",         "surprise",
"trust",   "non_avail",          "Total")) # # total5_sent_freq_part_4
<- total5_sent %>%filter(part == "part_4") %>% freq(sentiment)
%>% as.data.frame() %>% rename(percent_total = "% Total", percent_valid
= "% Valid", percent_valid_cum = "% Valid Cum.", percent_total_cum
= "% Total Cum.") %>% setattr("row.names", c("anger",          "anticipat
"disgust",          "fear",          "joy",          "negative",
"positive",         "sadness",        "surprise",        "trust", "non_avail",
"Total")) # # total5_sent_freq_part_5 <- total5_sent %>%filter(part
== "part_5") %>% freq(sentiment) %>% as.data.frame() %>% rename(percent_
= "% Total", percent_valid = "% Valid", percent_valid_cum = "%
Valid Cum.", percent_total_cum = "% Total Cum.") %>% setattr("row.names",
c("anger",          "anticipation", "disgust",          "fear",          "joy",
"negative",         "positive",      "sadness",         "surprise",
"trust",   "non_avail",          "Total")) # # # # total5_sent_freq
<- total5_sent %>% freq(sentiment) %>% as.data.frame() %>%
rename(percent_total = "% Total", percent_valid = "% Valid",
percent_valid_cum = "% Valid Cum.", percent_total_cum = "%
Total Cum.") %>% setattr("row.names", c("anger",          "anticipation",
"disgust",          "fear",          6 "joy",          "negative",
"positive",         "sadness",        "surprise",        "trust", "non_avail",
"Total")) #

```

```

anxiety <- c("angst",
"apprehension",
"concern",
"disquiet",
"doubt",
"dread",
"jitters",
"misery",
"misgiving",
"mistrust",
"nervousness",
"panic",
"restlessness",
"suspense",
"trouble",
"uncertainty",
"unease",
"uneasiness",
"botheration",
"butterflies",
"care",
"creeps",
"disquietude",
"distress",
"downer",
"drag",
"fidgets",
"flap",
"foreboding",
"fretfulness",
"fuss",
"heebie-jeebies",
"jumps",
"needles",
"shakes",
"shivers",
"solicitude",
"watchfulness",
"willies",
"worriment",
"all-overs",
"nail-biting",
"anxiety"
) %>% as.data.frame() %>% rename(no_punct = ".")
anxiety$anxiety<- rep("anxiety", nrow(anxiety))
plague <- plague %>% left_join(anxiety, by = "no_punct")
#plague %>% filter(!is.na(anxiety)) %>% ggplot(aes(x = count)) + geom_histogram(bins = 10)

#plague %>% filter(!is.na(value)) %>% ggplot(aes(x = count, y = value)) + geom_point()

we <-c("we") %>% as.data.frame() %>% rename(no_punct = ".")
we$we <- rep("we", nrow(we))

```

```
plague <- plague %>% left_join(we, by = "no_punct")
```

```
exile <- c("exile",
          "banishment",
          "diaspora",
          "dispersion",
          "displacement",
          "exclusion",
          "expatriation",
          "expulsion",
          "extradition",
          "migration",
          "ostracism",
          "proscription",
          "relegation",
          "scattering",
          "separation") %>% as.data.frame() %>% rename(no_punct = ".")
exile$exile <- rep("exile", nrow(exile))
plague <- plague %>% left_join(exile, by = "no_punct")
```

```
suffer <- c("suffer", "adversity",
            "anguish",
            "difficulty",
            "discomfort",
            "hardship",
            "misery",
            "misfortune",
            "ordeal",
            "torment",
            "torture",
            "affliction",
            "distress",
            "dolor",
            "martyrdom",
            "passion") %>% as.data.frame() %>% rename(no_punct = ".")
suffer$suffer <- rep("suffer", nrow(suffer))
plague <- plague %>% left_join(suffer, by = "no_punct")
```

```
# total5_sent_freq_part_1$row_names <- total5_sent_freq %>% rownames()
# total5_sent_freq_part_2$row_names <- total5_sent_freq %>% rownames()
# total5_sent_freq_part_3$row_names <- total5_sent_freq %>% rownames()
# total5_sent_freq_part_4$row_names <- total5_sent_freq %>% rownames()
# total5_sent_freq_part_5$row_names <- total5_sent_freq %>% rownames()
# total5_sent_freq$row_names <- total5_sent_freq %>% rownames()
```

```
#plague %>% group_by(Word) %>% View()
```

```
# set.seed(1234)
# wordcloud(words = , freq = d$freq, min.freq = 1,
#            max.words=200, random.order=FALSE, rot.per=0.35,
#            colors=brewer.pal(8, "Dark2"))
```



```
# total5_sent_freq_part_1 %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar
# total5_sent_freq_part_2 %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar
# total5_sent_freq_part_3 %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar
# total5_sent_freq_part_4 %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar
# total5_sent_freq_part_5 %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar
#
# total5_sent_freq %>% slice(1:10) %>% ggplot(aes(x = row_names, y = percent_total)) + geom_bar(stat="
#
plague %>% write.csv("plague_edited_df.csv")
```

```
plague %>% group_by(part) %>% freq(nrc_sent)
```

```
## Frequencies
```

```
## plague$nrc_sent
```

```
## Type: Character
```

```
## Group: part = part_1
```

```
##
```

	Freq	% Valid	% Valid Cum.	% Total	% Total Cum.
anger	173	5.77	5.77	1.07	1.07
anticipation	261	8.71	14.49	1.61	2.68
disgust	185	6.17	20.66	1.14	3.82
fear	301	10.05	30.71	1.86	5.67
joy	168	5.61	36.32	1.04	6.71
negative	495	16.52	52.84	3.05	9.76
positive	616	20.56	73.40	3.80	13.56
sadness	280	9.35	82.74	1.73	15.28
surprise	130	4.34	87.08	0.80	16.09
trust	387	12.92	100.00	2.39	18.47
<NA>	13223			81.53	100.00
Total	16219	100.00	100.00	100.00	100.00

```
##
```

```
## Group: part = part_2
```

```
##
```

	Freq	% Valid	% Valid Cum.	% Total	% Total Cum.
anger	282	5.37	5.37	1.08	1.08
anticipation	533	10.15	15.52	2.05	3.13
disgust	269	5.12	20.64	1.03	4.16
fear	498	9.48	30.12	1.91	6.07
joy	373	7.10	37.22	1.43	7.51
negative	834	15.88	53.10	3.20	10.71
positive	1041	19.82	72.92	4.00	14.71
sadness	519	9.88	82.81	1.99	16.70
surprise	271	5.16	87.97	1.04	17.74
trust	632	12.03	100.00	2.43	20.17
<NA>	20792			79.83	100.00
Total	26044	100.00	100.00	100.00	100.00

```
##
```

```
## Group: part = part_3
```

```
##
```

	Freq	% Valid	% Valid Cum.	% Total	% Total Cum.
--	------	---------	--------------	---------	--------------

```
##          anger      128      7.34      7.34      1.84      1.84
##      anticipation      139      7.97      15.30      2.00      3.84
##          disgust      122      6.99      22.29      1.75      5.59
##          fear       232     13.30      35.59      3.33      8.92
##          joy        83      4.76      40.34      1.19     10.11
##      negative      327     18.74      59.08      4.70     14.81
##      positive      247     14.15      73.24      3.55     18.36
##      sadness      229     13.12      86.36      3.29     21.65
##      surprise       64      3.67      90.03      0.92     22.57
##      trust       174      9.97     100.00      2.50     25.07
##      <NA>      5216
##      Total     6961    100.00     100.00    100.00    100.00
```

```
##
## Group: part = part_4
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##          anger      292      6.23      6.23      1.31      1.31
##      anticipation      441      9.40     15.63      1.98      3.29
##          disgust      281      5.99     21.62      1.26      4.55
##          fear       510     10.87     32.49      2.29      6.84
##          joy       306      6.52     39.02      1.37      8.21
##      negative      804     17.14     56.16      3.61     11.82
##      positive      824     17.57     73.73      3.70     15.51
##      sadness      473     10.09     83.82      2.12     17.63
##      surprise      224      4.78     88.59      1.00     18.64
##      trust       535     11.41    100.00      2.40     21.04
##      <NA>     17603
##      Total    22293    100.00    100.00    100.00    100.00
```

```
##
## Group: part = part_5
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##          anger      192      6.28      6.28      1.43      1.43
##      anticipation      325     10.64     16.92      2.42      3.85
##          disgust      160      5.24     22.16      1.19      5.04
##          fear       313     10.25     32.41      2.33      7.36
##          joy       233      7.63     40.03      1.73      9.10
##      negative      491     16.07     56.10      3.65     12.75
##      positive      526     17.22     73.32      3.91     16.66
##      sadness      315     10.31     83.63      2.34     19.01
##      surprise      154      5.04     88.67      1.15     20.15
##      trust       346     11.33    100.00      2.57     22.73
##      <NA>     10387
##      Total    13442    100.00    100.00    100.00    100.00
```

```
plague %>% group_by(part) %>% freq(we)
```

```
## Frequencies
## plague$we
## Type: Character
## Group: part = part_1
##
```

```
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      we      19    100.00      100.00      0.12      0.12
##      <NA> 16200
##      Total 16219    100.00      100.00    100.00    100.00
##
## Group: part = part_2
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      we      32    100.00      100.00      0.12      0.12
##      <NA> 26012
##      Total 26044    100.00      100.00    100.00    100.00
##
## Group: part = part_3
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      we      10    100.00      100.00      0.14      0.14
##      <NA> 6951
##      Total 6961    100.00      100.00    100.00    100.00
##
## Group: part = part_4
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      we      39    100.00      100.00      0.17      0.17
##      <NA> 22254
##      Total 22293    100.00      100.00    100.00    100.00
##
## Group: part = part_5
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      we       9    100.00      100.00      0.07      0.07
##      <NA> 13433
##      Total 13442    100.00      100.00    100.00    100.00
```

```
love_freq <-plague %>% group_by(part) %>% freq(love)
```

```
plague %>% group_by(part) %>% freq(anxiety)
```

```
## Frequencies
## plague$anxiety
## Type: Character
## Group: part = part_1
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      anxiety    55    100.00      100.00      0.34      0.34
##      <NA> 16164
##      Total 16219    100.00      100.00    100.00    100.00
##
```

```
## Group: part = part_2
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    anxiety    82    100.00    100.00    0.31    0.31
##      <NA>  25962
##    Total  26044    100.00    100.00   100.00   100.00
##
## Group: part = part_3
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    anxiety    35    100.00    100.00    0.50    0.50
##      <NA>  6926
##    Total  6961    100.00    100.00   100.00   100.00
##
## Group: part = part_4
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    anxiety    51    100.00    100.00    0.23    0.23
##      <NA>  22242
##    Total  22293    100.00    100.00   100.00   100.00
##
## Group: part = part_5
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    anxiety    51    100.00    100.00    0.38    0.38
##      <NA>  13391
##    Total  13442    100.00    100.00   100.00   100.00
```

```
plague %>% group_by(part) %>% freq(selfish)
```

```
## Frequencies
## plague$selfish
## Type: Character
## Group: part = part_1
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    selfish     7    100.00    100.00    0.04    0.04
##      <NA>  16212
##    Total  16219    100.00    100.00   100.00   100.00
##
## Group: part = part_2
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    selfish     8    100.00    100.00    0.03    0.03
##      <NA>  26036
##    Total  26044    100.00    100.00   100.00   100.00
##
## Group: part = part_3
```

```
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    selfish      2    100.00      100.00     0.03      0.03
##      <NA>    6959
##    Total    6961    100.00      100.00    100.00    100.00
##
## Group: part = part_4
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    selfish      5    100.00      100.00     0.02      0.02
##      <NA>   22288
##    Total   22293    100.00      100.00    100.00    100.00
##
## Group: part = part_5
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##    selfish      2    100.00      100.00     0.01      0.01
##      <NA>   13440
##    Total   13442    100.00      100.00    100.00    100.00
```

```
plague %>% group_by(part) %>% freq(value)
```

```
## Frequencies
## plague$value
## Type: Numeric
## Group: part = part_1
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      -4        1     0.07      0.07     0.01      0.01
##      -3       151    11.30     11.38     0.93      0.94
##      -2       377    28.22     39.60     2.32      3.26
##      -1       176    13.17     52.77     1.09      4.35
##        1       229    17.14     69.91     1.41      5.76
##        2       246    18.41     88.32     1.52      7.28
##        3       153    11.45     99.78     0.94      8.22
##        4         3     0.22    100.00     0.02      8.24
##      <NA>   14883
##    Total   16219    100.00    100.00    100.00    100.00
##
## Group: part = part_2
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      -5         2     0.08     0.08     0.01      0.01
##      -4         5     0.21     0.30     0.02      0.03
##      -3       163     6.87     7.17     0.63      0.65
##      -2       617    26.01    33.18     2.37      3.02
##      -1       413    17.41    50.59     1.59      4.61
##        1       387    16.32    66.91     1.49      6.09
##        2       469    19.77    86.68     1.80      7.89
```

```

##          3      295      12.44      99.11      1.13      9.03
##          4       20       0.84      99.96      0.08      9.10
##          5        1       0.04     100.00      0.00      9.11
##      <NA> 23672
##      Total 26044     100.00     100.00     100.00     100.00
##
## Group: part = part_3
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##          -4     1      0.13      0.13     0.01     0.01
##          -3    92     11.96     12.09     1.32     1.34
##          -2   261     33.94     46.03     3.75     5.09
##          -1   128     16.64     62.68     1.84     6.92
##           1    94     12.22     74.90     1.35     8.27
##           2   112     14.56     89.47     1.61     9.88
##           3    74      9.62     99.09     1.06    10.95
##           4     7      0.91    100.00     0.10    11.05
##      <NA> 6192
##      Total 6961     100.00     100.00     100.00     100.00
##
## Group: part = part_4
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##          -4     25      1.16      1.16     0.11     0.11
##          -3   226     10.52     11.69     1.01     1.13
##          -2   638     29.70     41.39     2.86     3.99
##          -1   341     15.88     57.26     1.53     5.52
##           1   310     14.43     71.69     1.39     6.91
##           2   377     17.55     89.25     1.69     8.60
##           3   223     10.38     99.63     1.00     9.60
##           4     8      0.37    100.00     0.04     9.64
##      <NA> 20145
##      Total 22293     100.00     100.00     100.00     100.00
##
## Group: part = part_5
##
##          Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##          -3   113      7.72      7.72     0.84     0.84
##          -2   353     24.13     31.85     2.63     3.47
##          -1   237     16.20     48.05     1.76     5.23
##           1   174     11.89     59.95     1.29     6.52
##           2   341     23.31     83.25     2.54     9.06
##           3   202     13.81     97.06     1.50    10.56
##           4    43      2.94    100.00     0.32    10.88
##      <NA> 11979
##      Total 13442     100.00     100.00     100.00     100.00

```

```
plague %>% group_by(part) %>% freq(afin_sent)
```

```

## Frequencies
## plague$afin_sent

```

```
## Type: Character
## Group: part = part_1
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      negative  1143    66.96      66.96     7.05      7.05
##      positive   564    33.04     100.00     3.48     10.52
##      <NA>    14512   100.00     100.00    89.48    100.00
##      Total   16219   100.00     100.00   100.00    100.00
##
## Group: part = part_2
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      negative  1870    64.53      64.53     7.18     7.18
##      positive  1028    35.47     100.00     3.95    11.13
##      <NA>    23146   100.00     100.00    88.87   100.00
##      Total   26044   100.00     100.00   100.00   100.00
##
## Group: part = part_3
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      negative   819    74.59      74.59    11.77    11.77
##      positive   279    25.41     100.00     4.01    15.77
##      <NA>    5863   100.00     100.00    84.23   100.00
##      Total   6961   100.00     100.00   100.00   100.00
##
## Group: part = part_4
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      negative  1934    69.77      69.77     8.68     8.68
##      positive   838    30.23     100.00     3.76    12.43
##      <NA>    19521   100.00     100.00    87.57   100.00
##      Total   22293   100.00     100.00   100.00   100.00
##
## Group: part = part_5
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      negative  1226    63.59      63.59     9.12     9.12
##      positive   702    36.41     100.00     5.22    14.34
##      <NA>    11514   100.00     100.00    85.66   100.00
##      Total   13442   100.00     100.00   100.00   100.00
```

```
plague %>% group_by(part) %>% freq(suffer)
```

```
## Frequencies
## plague$suffer
## Type: Character
## Group: part = part_1
##
##      Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
```

```
## -----
##      suffer      16    100.00      100.00      0.10      0.10
##      <NA>    16203      100.00      100.00      99.90      100.00
##      Total    16219    100.00      100.00    100.00      100.00
##
## Group: part = part_2
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      suffer      78    100.00      100.00      0.30      0.30
##      <NA>    25966      100.00      100.00      99.70      100.00
##      Total    26044    100.00      100.00    100.00      100.00
##
## Group: part = part_3
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      suffer      30    100.00      100.00      0.43      0.43
##      <NA>    6931      100.00      100.00      99.57      100.00
##      Total    6961    100.00      100.00    100.00      100.00
##
## Group: part = part_4
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      suffer      51    100.00      100.00      0.23      0.23
##      <NA>    22242      100.00      100.00      99.77      100.00
##      Total    22293    100.00      100.00    100.00      100.00
##
## Group: part = part_5
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      suffer      15    100.00      100.00      0.11      0.11
##      <NA>    13427      100.00      100.00      99.89      100.00
##      Total    13442    100.00      100.00    100.00      100.00
```

```
plague %>% group_by(part) %>% freq(exile) #>% ggplot(aes(x = ))
```

```
## Frequencies
## plague$exile
## Type: Character
## Group: part = part_1
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      <NA>    16219      0.00      100.00    100.00      100.00
##      Total    16219      0.00      100.00    100.00      100.00
##
## Group: part = part_2
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      exile      35    100.00      100.00      0.13      0.13
```



```

##      <NA> 26009                99.87      100.00
##      Total 26044      100.00      100.00      100.00      100.00
##
## Group: part = part_3
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      exile     19    100.00      100.00     0.27     0.27
##      <NA>    6942
##      Total   6961    100.00      100.00    100.00    100.00
##
## Group: part = part_4
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      exile      2    100.00      100.00     0.01     0.01
##      <NA>   22291
##      Total  22293    100.00      100.00    100.00    100.00
##
## Group: part = part_5
##
##           Freq  % Valid  % Valid Cum.  % Total  % Total Cum.
## -----
##      exile     38    100.00      100.00     0.28     0.28
##      <NA>   13404
##      Total  13442    100.00      100.00    100.00    100.00

```