ggplot2 Circular Heatmap that looks like a donut

I'm trying to create circular heatmap with ggplot2 so I can use a larger number of labels around the circumference of a circle. I'd like to have it look more like a donut with an empty hole in the middle but at the same time not losing any rows (they would need to be compressed). Any ideas? Code for what I have is below. Thanks!

```
library(reshape)
library(ggplot2)

nba <- read.csv("http://datasets.flowingdata.com/ppg2008.csv")

nba$Name <- with(nba, reorder(Name, PTS))
nba.m <- melt(nba)
nba.m <- ddply(nba.m, .(variable), transform, value = scale(value))

p = ggplot(nba.m, aes(Name,variable)) + geom_tile(aes(fill = value), colour = "whi
p<-p+opts(
panel.background=theme_blank(),
axis.title.x=theme_blank(),
axis.title.y=theme_blank(),
panel.grid.major=theme_blank(),
panel.grid.minor=theme_blank(),
axis.text.x=theme_blank(),
axis.ticks=theme_blank()
)


p = p + coord_polar()
plot(p)
```

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asked Dec 14 '12 at 22:51

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1 Answer

Here is a solution accomplished by (1) converting factor to numeric and adding an offset, (2) manually specifying y-limits and (3) manually setting y-axis breaks and labels:

```
library(reshape)
library(ggplot2)
# Using ggplot2 0.9.2.1

nba <- read.csv("http://datasets.flowingdata.com/ppg2008.csv")
nba$Name <- with(nba, reorder(Name, PTS))
nba.m <- melt(nba)
nba.m <- ddply(nba.m, .(variable), transform, value = scale(value))

# Convert the factor levels to numeric + quanity to determine size of hole.
nba.m$var2 = as.numeric(nba.m$variable) + 15

# Labels and breaks need to be added with scale_y_discrete.
y_labels = levels(nba.m$variable)
y_breaks = seq_along(y_labels) + 15

p2 = ggplot(nba.m, aes(x=Name, y=var2, fill=value)) +
    geom_tile(colour="white") +
    scale_fill_gradient(low = "white", high = "steelblue") +
    ylim(c(0, max(nba.m$var2) + 0.5)) +
    scale_y_discrete(breaks=y_breaks, labels=y_labels) +
    coord_polar(theta="x") +
    theme(panel.background=element_blank(),
          axis.title=element_blank(),
          panel.grid=element_blank(),
          axis.text.x=element_blank(),
          axis.ticks=element_blank(),
          axis.text.y=element_text(size=5))

ggsave(filename="plot_2.png", plot=p2, height=7, width=7)
```
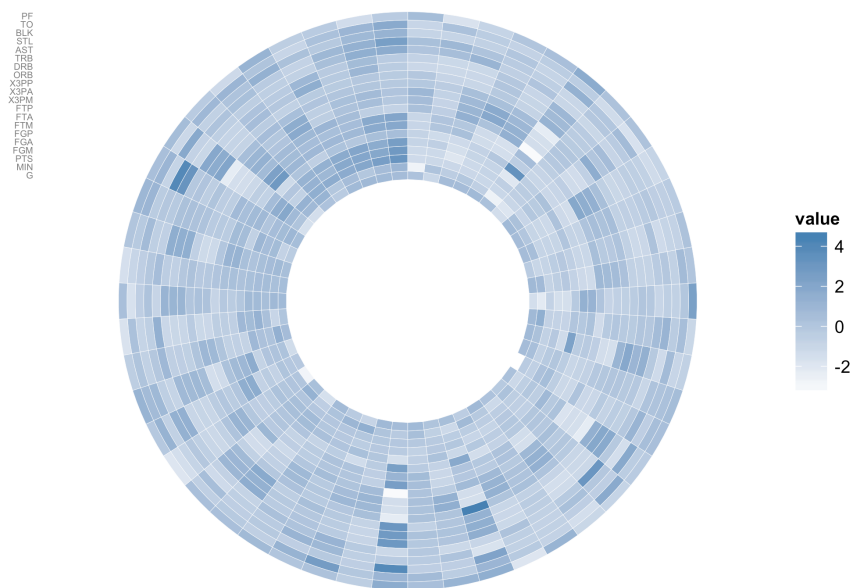
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