

cspplot_examples

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```
#-----load required packages-----
library(ggplot2)

## Warning: package 'ggplot2' was built under R version 4.2.2
library(cspplot)

##
## Attaching package: 'cspplot'
## The following objects are masked from 'package:ggplot2':
##
##   scale_color_continuous, scale_color_discrete, scale_color_gradient,
##   scale_color_gradient2, scale_color_gradientn,
##   scale_colour_continuous, scale_colour_discrete,
##   scale_colour_gradient, scale_colour_gradient2,
##   scale_colour_gradientn, scale_fill_continuous, scale_fill_discrete,
##   scale_fill_gradient, scale_fill_gradient2, scale_fill_gradientn
library(geometry)

## Warning: package 'geometry' was built under R version 4.2.2
library(ordinal)

## Warning: package 'ordinal' was built under R version 4.2.2
c = c("x1", "x2", "x3", "x4")
s = c(1:4)
cycle=c(1)

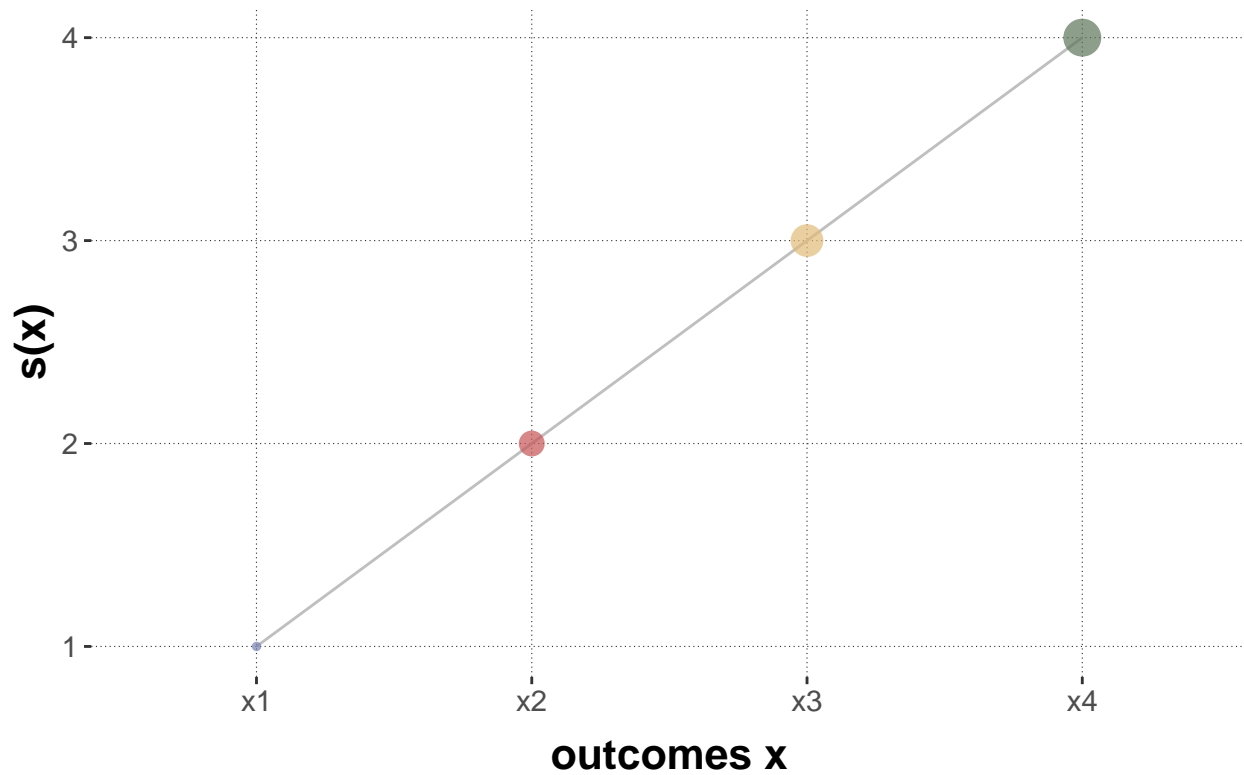
test_discrete<-data.frame(c,s,cycle)

pd = position_dodge2(width = 0.4, padding = 0.1) #dodge other points

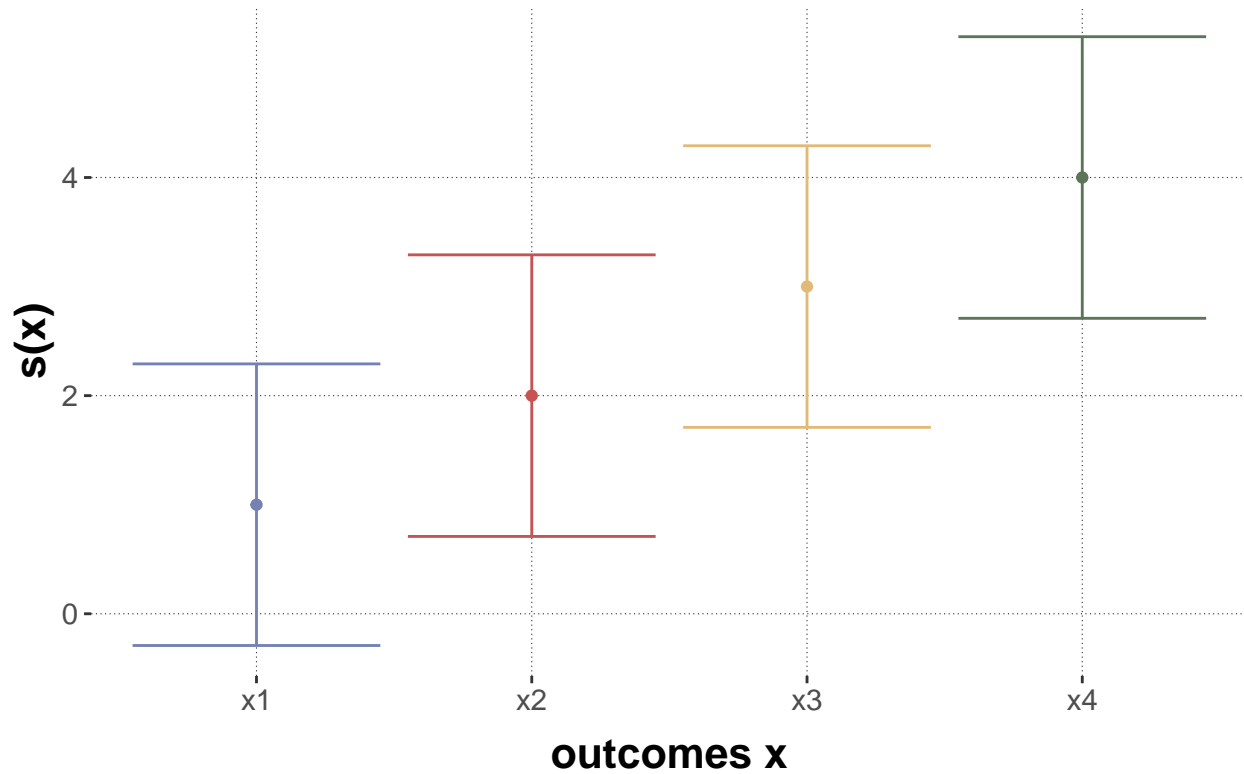
#####
##### Example plots for discrete scales #####
#####

#-----point-line plot-----
plot_point_line<-ggplot(test_discrete, aes(y = s,x = c, color = c))+
  theme_csp()+
  geom_line(aes(group=cycle), color="grey75", linetype = 1, position=pd)+
  geom_point(aes(size=s), alpha = 0.7, position=pd)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  theme(legend.position = "none")
```

```
plot_point_line
```

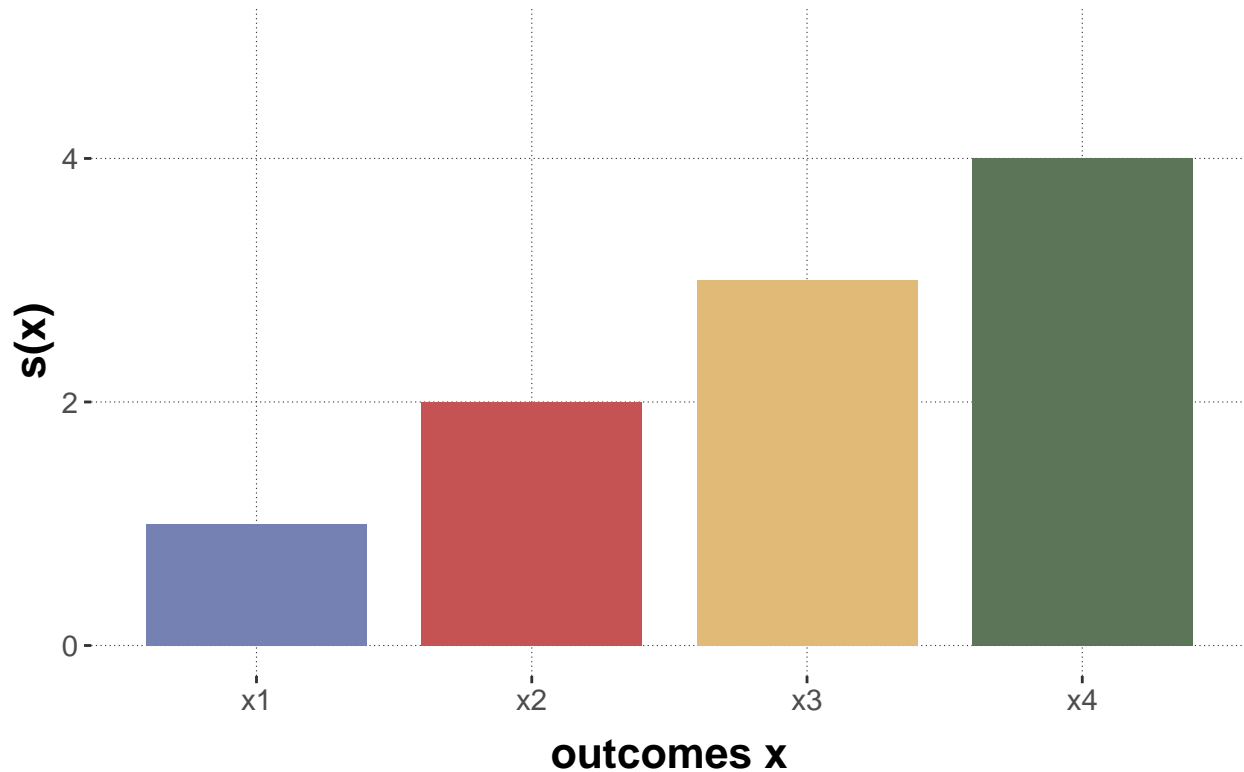


```
#-----error bar plot-----  
plot_errorbar<-ggplot(test_discrete, aes(y = s,x = c, color = c))+  
  theme_csp()+  
  geom_errorbar(aes(ymin = s - sd(s), ymax = s + sd(s)))+  
  geom_point(position=pd)+  
  labs(x = "outcomes x", y = "s(x)", title = "")+  
  theme(legend.position = "none")  
  
plot_errorbar
```



```
#-----bar plot-----
plot_bars1<-ggplot(test_discrete, aes(y = s,x = c, fill = c))+
  theme_csp()+
  geom_bar(stat = "identity", width=0.8)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
  theme(legend.position = "none")

plot_bars1
```



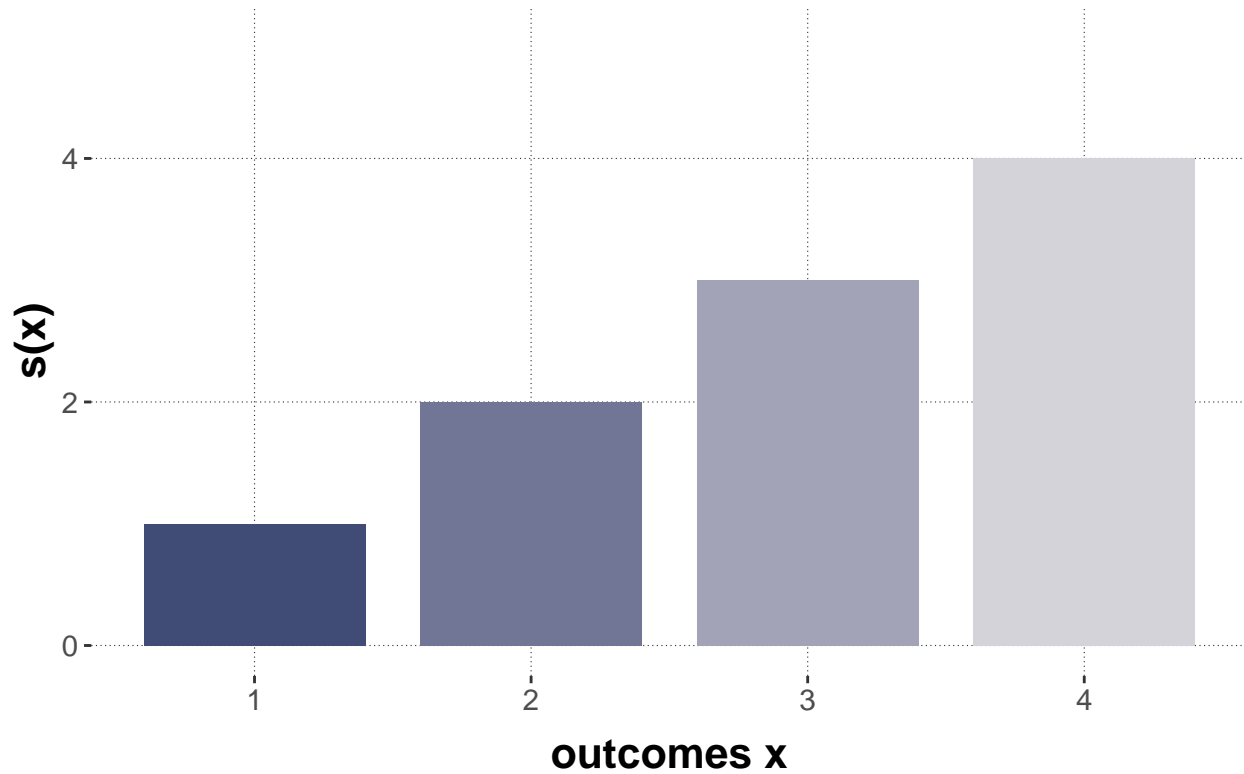
```
#####
##### Example plots for continuous scales #####
#####

i = c(1:4)
j = c(1:4)
k=c(1)

test_continuous<-data.frame(i,j,k)

#-----gradient scale-----
plot_bars2<-ggplot(test_continuous, aes(y = j,x = i, fill = i))+
  theme_csp()+
  geom_bar(stat = "identity", width=0.8)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
  theme(legend.position = "none")

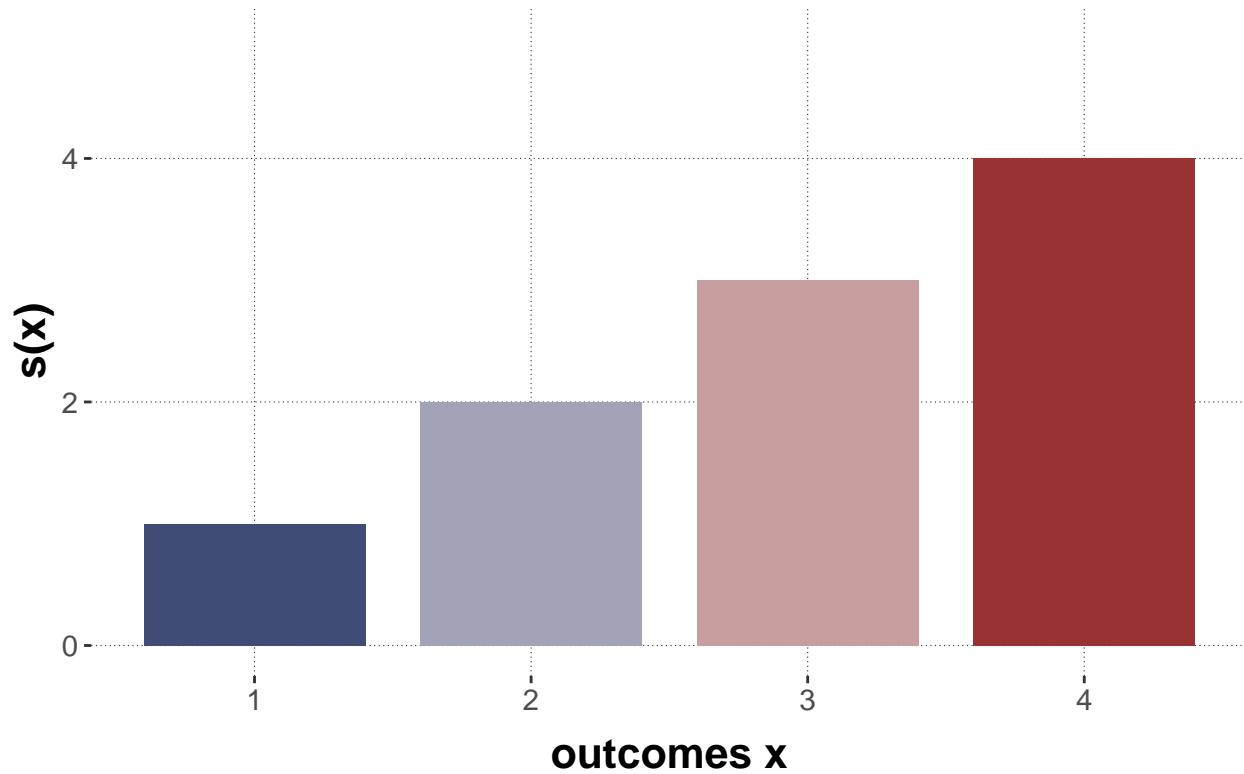
plot_bars2
```



```
#-----diverging gradient-----

plot_bars3<-ggplot(test_continuous, aes(y = j,x = i, fill = i))+
  theme_csp()+
  geom_bar(stat = "identity", width=0.8)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  scale_fill_gradient2()+
  scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
  theme(legend.position = "none")

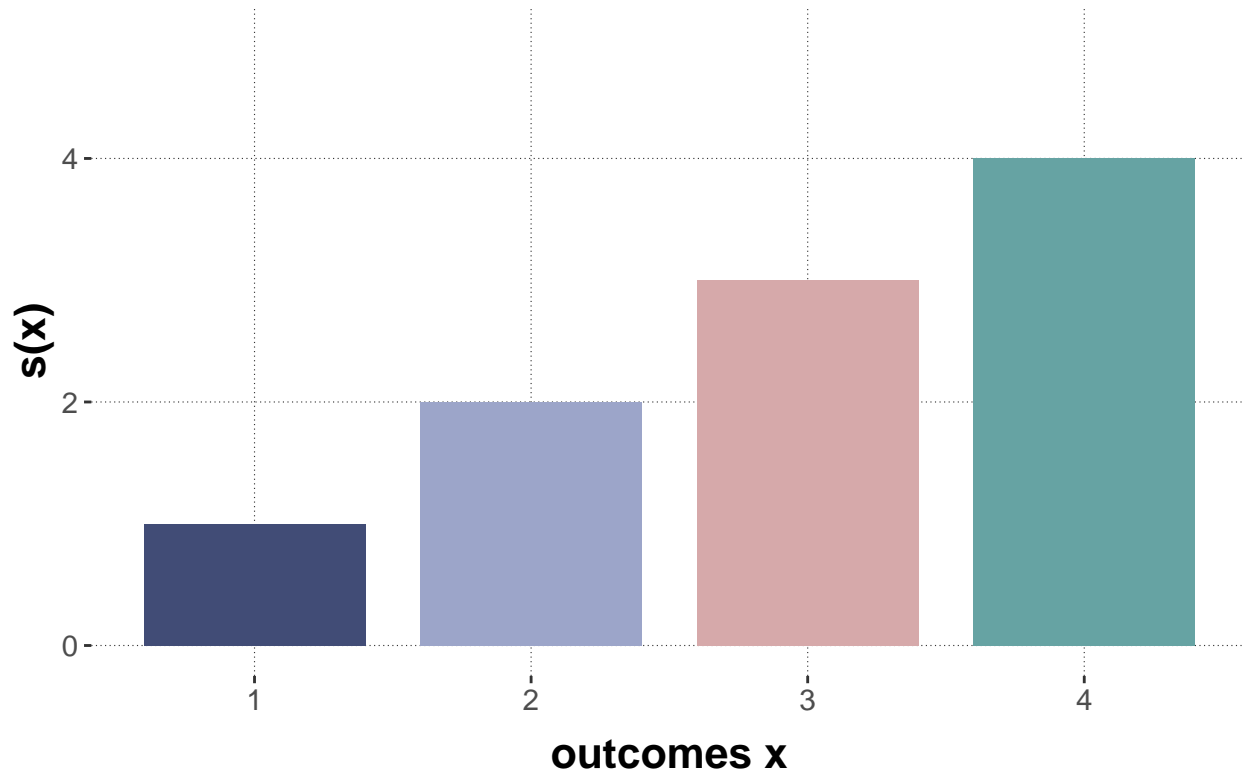
plot_bars3
```



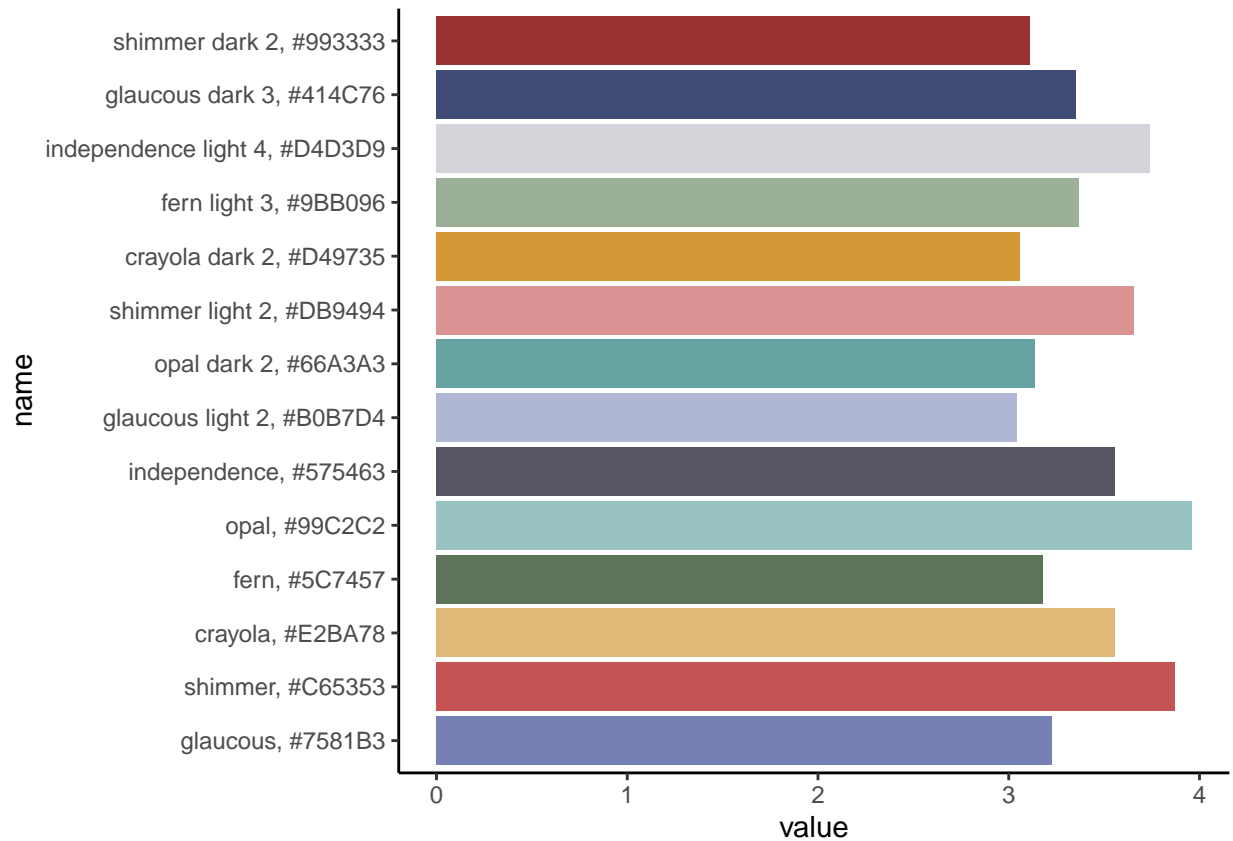
```
#-----n-numbered gradient-----

plot_bars4<-ggplot(test_continuous, aes(y = j,x = i, fill = i))+
  theme_csp()+
  geom_bar(stat = "identity", width=0.8)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  scale_fill_gradientn()+
  scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
  theme(legend.position = "none")

plot_bars4
```



```
#####  
##### Example plot with manual color selection #####  
#####  
  
#function returning a plot to show the colors with their names  
display_colors()
```



```
#function returning a tibble of the color names and number
list_colors()
```

```
## # A tibble: 14 x 2
##   name                hex
##   <fct>              <chr>
## 1 glaucous          #7581B3
## 2 shimmer           #C65353
## 3 crayola           #E2BA78
## 4 fern              #5C7457
## 5 opal              #99C2C2
## 6 independence      #575463
## 7 glaucous light 2   #B0B7D4
## 8 opal dark 2        #66A3A3
## 9 shimmer light 2    #DB9494
## 10 crayola dark 2    #D49735
## 11 fern light 3      #9BB096
## 12 independence light 4 #D4D3D9
## 13 glaucous dark 3    #414C76
## 14 shimmer dark 2    #993333
```

```
palette<-list_colors()[,"hex", drop = TRUE]
```

```
#-----bar plot-----
plot_bars5<-ggplot(test_discrete, aes(y = s,x = c, fill = c))+
  theme_csp()+
  geom_bar(stat ="identity", width=0.8)+
```



```

labs(x = "outcomes x", y = "s(x)", title = "")+
scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
scale_fill_manual(values = c(palette[11:14]))+
theme(legend.position = "none")

```

plot_bars5

