cspplot_examples

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

```
## Warning: Paket 'ggplot2' wurde unter R Version 4.2.2 erstellt
```

```
library(cspplot)
```

```
##
## Attache Paket: 'cspplot'
```

```
## Die folgenden Objekte sind maskiert von '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
```

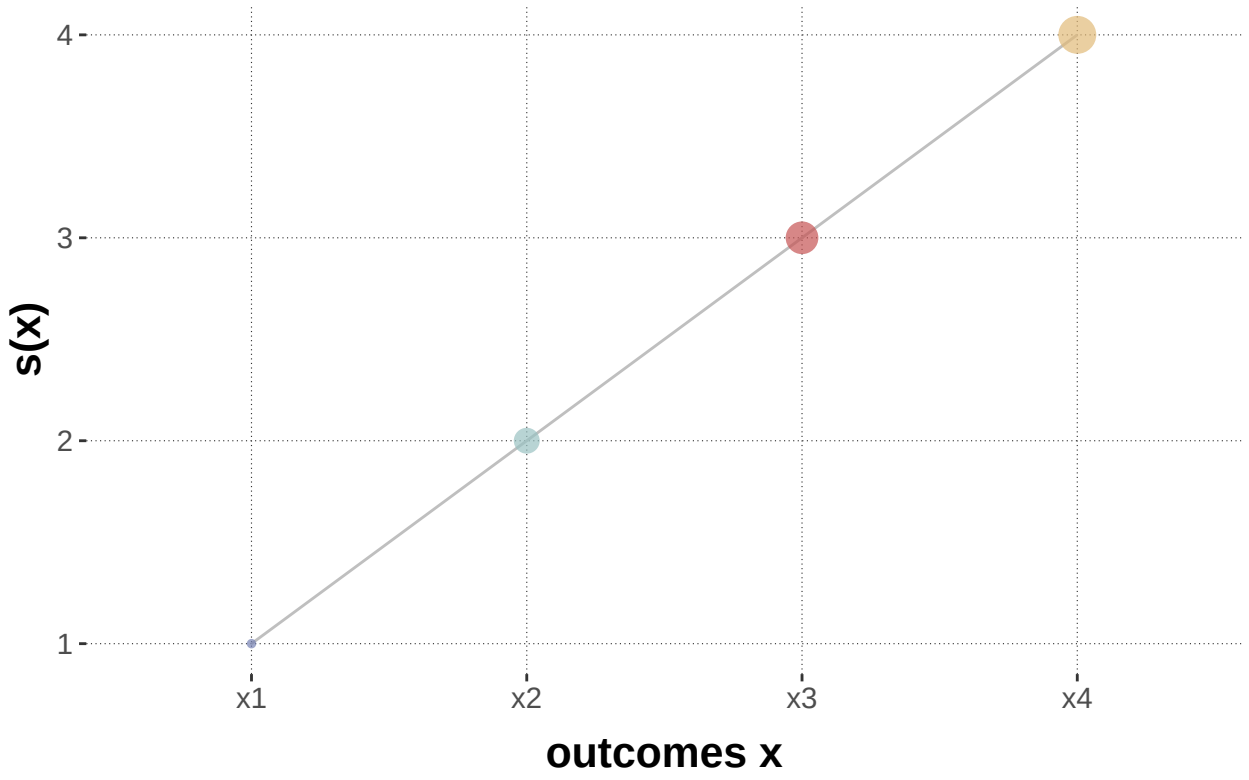
```
library(geometry)
```

```
## Warning: Paket 'geometry' wurde unter R Version 4.2.2 erstellt
```

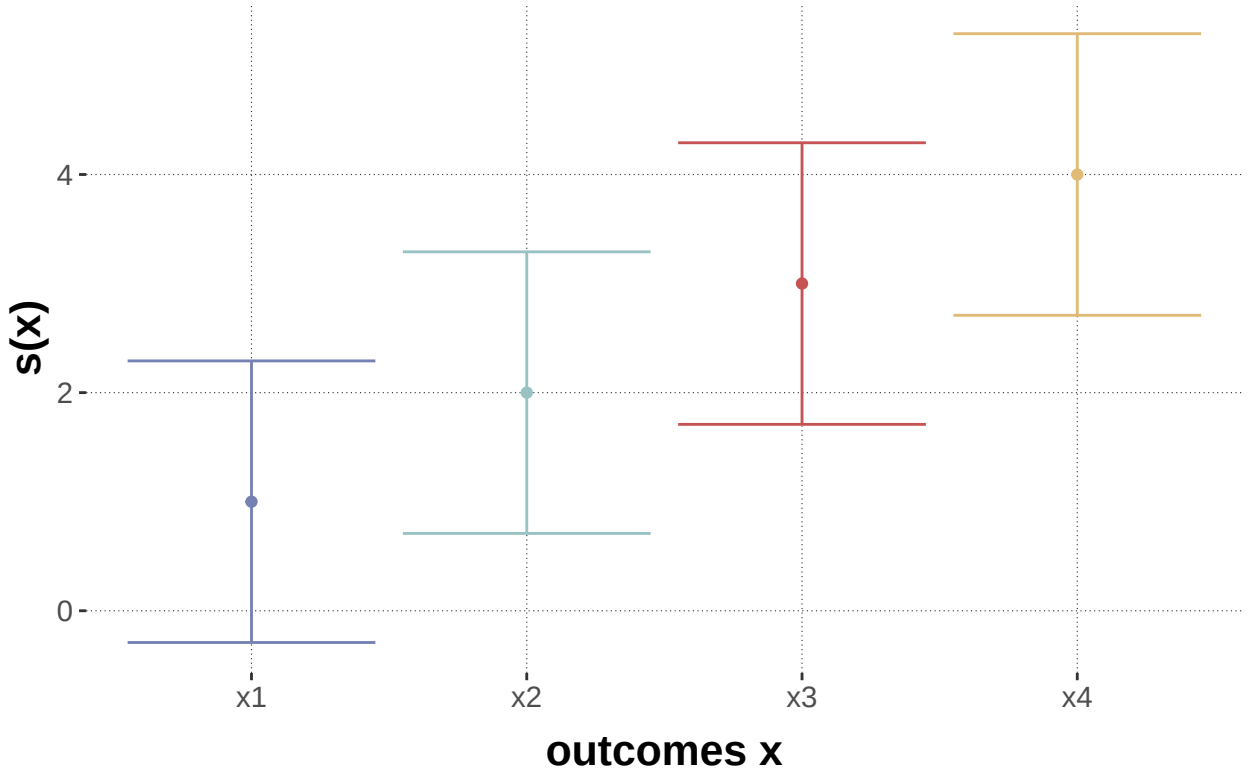
```
library(ordinal)
```

```
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
```

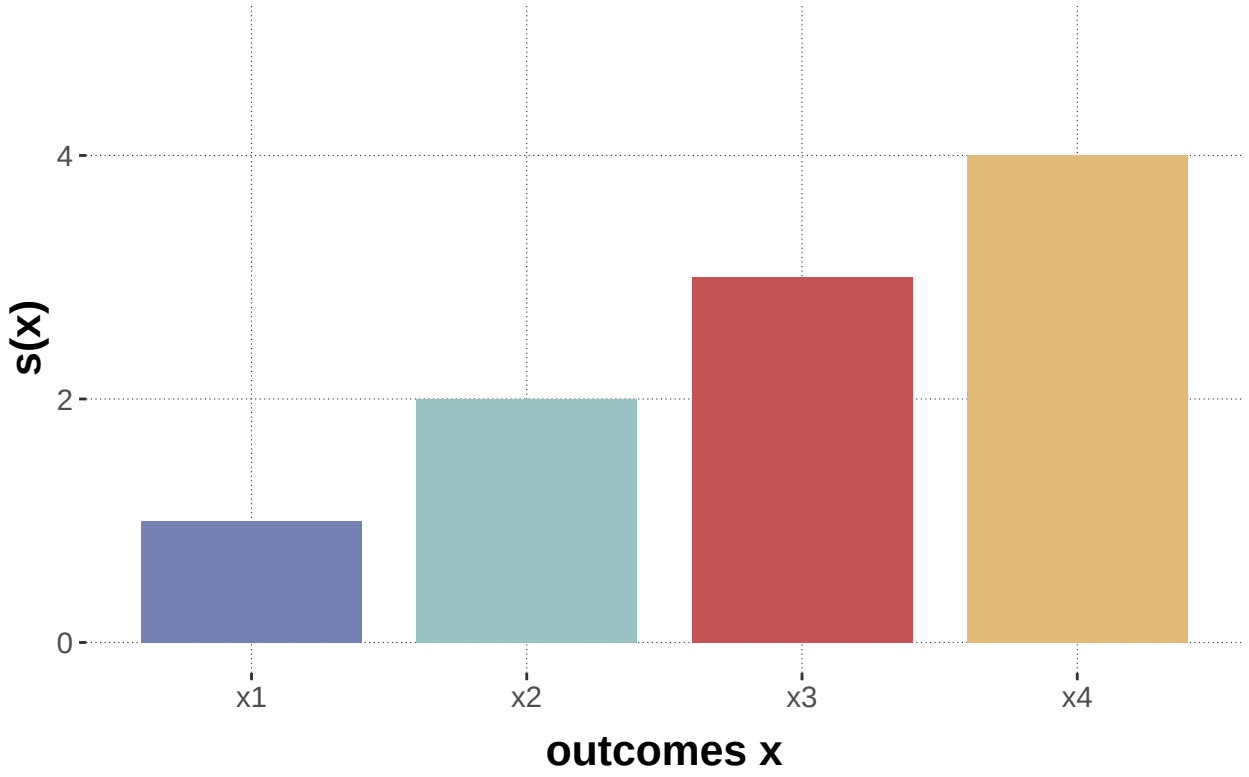
```
#########################################################################
################## Example plots for discrete scales  ##############
#########################################################################

#---------------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
```



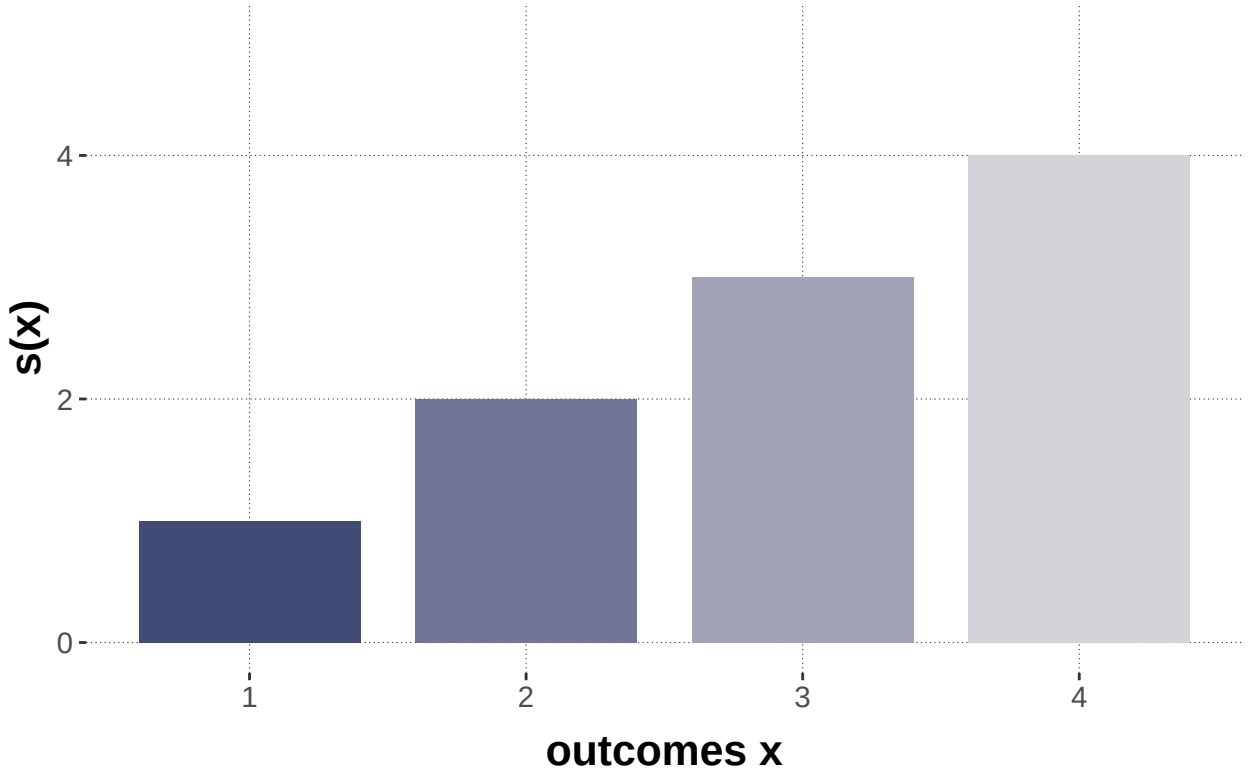

```
#---------------error bar plot-------------------------------------
plot_errorbar<-ggplot(test_discrete, aes(y = s,x = c, color = c))+
  theme_csp()+
  geom_errorbar(aes(ymin = s - sd(s), ymax = s + sd(s)))+
  geom_point(position=pd)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  theme(legend.position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

plot_errorbar
```



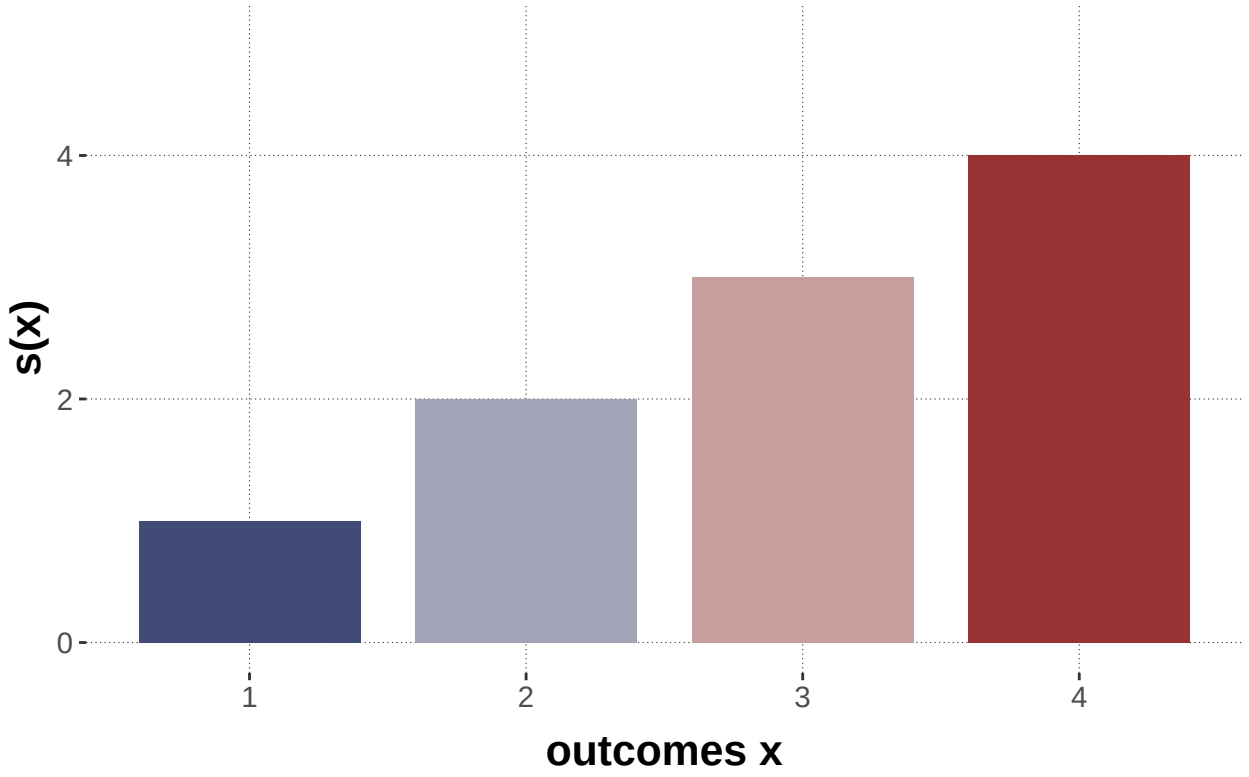

```
#--------------bar plot--------------------
plot_bars1<-ggplot(test_discrete, aes(y = s,x = c, fill = c))+
  theme_csp()+
  geom_bar(stat ="identity", width=0.8)+
  labs(x = "outcomes x", y = "s(x)", title = "")+
  scale_y_continuous(limits=c(0,5),breaks=c(0,2,4))+
  theme(legend.position = "none")

plot_bars1
```



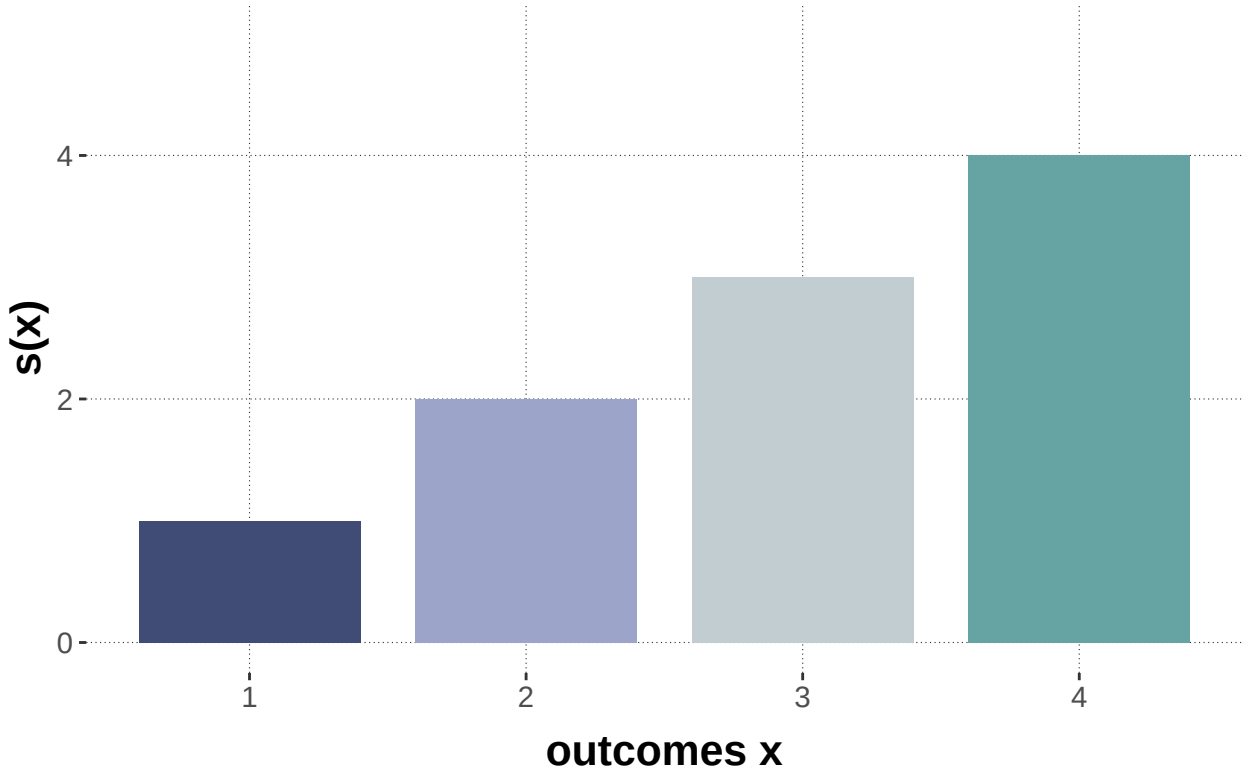

```
#########################################################################
############### Example plots for continuous scales  ###############
#########################################################################

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
```



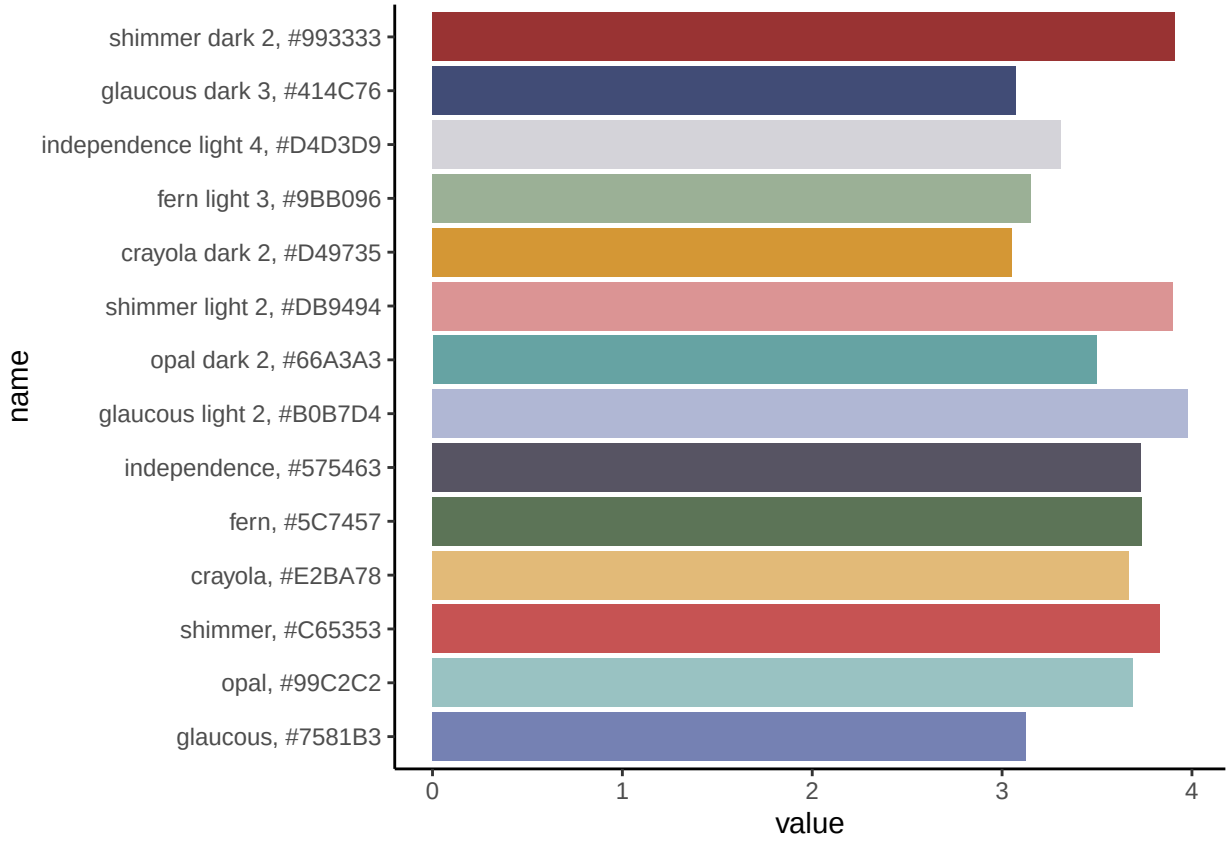

```
#--------------diverging gradient-----------------------

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 opal                 #99C2C2
##  3 shimmer              #C65353
##  4 crayola              #E2BA78
##  5 fern                 #5C7457
##  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
```