

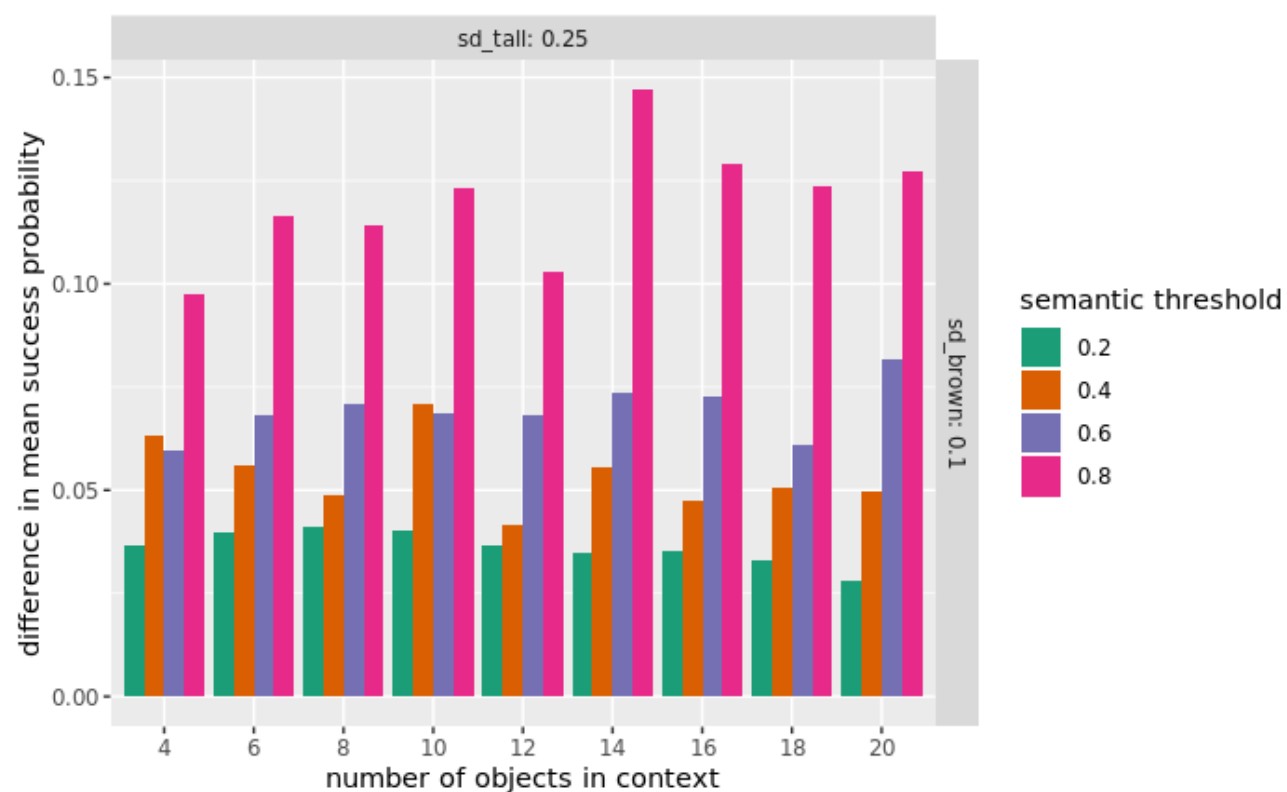
Results Notebook

[Code ▾](#)[Hide](#)

```
options(encoding = "UTF-8")
source('~/adjective_order/code/01_referential_success_k-percent_semantics.r')
```

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```
iterations = 5000
data = list(); i = 1;
for (n in seq(4,20,2)) {
  for (th in seq(0.2,0.8,0.2)) {
    dat <- get_outcomes(iterations, n_obj = n, sd_brown = 0.1, sd_tall = 0.25, theta = th)
    data[[i]] <- dat
    i = i + 1
  }
}
results = do.call(rbind, data)
selection = select(filter(results, context_types == "all"), -sum_success_prob) %>%
  spread(key = ordering, value = mean_success)
results_plot = selection %>%
  ggplot(aes(x = as.factor(n_obj), y = tall_brown - brown_tall, fill = as.factor(theta))) +
  geom_bar(stat = "identity", position = "dodge") + facet_grid(sd_brown ~ sd_tall) +
  ylab("difference in mean success probability") +
  xlab("number of objects in context") +
  scale_fill_brewer(palette="Dark2", name = "semantic threshold")
show(results_plot)
```

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```
selection$group <- paste(selection$n_obj, selection$sd_brown, selection$sd_tall)
selection %>% ggplot( aes(x=as.factor(theta), y= tall_brown - brown_tall, group = group, col=group)) + geom_point
() + geom_line(linetype = "dashed")
```

