

## Exercise 8

The point of this exercise is to practice making plots, specifically interaction plots and distribution plots, just like we discussed in lecture. Since we already used the data from class, I have provided new data for this exercise in the file exercise.8.data.xlsx. The file contains only the target conditions (no fillers). It is already in long format with z-scores.

This experiment investigated the behavior of four pairs of gendered nouns under ellipsis: actor/actress, waiter/waitress, prince/princess, and king/queen.

For each word, we manipulated two factors. The first factor is genderOrder, which manipulates the order of the gender of the two subject NPs in the sentence (one in the antecedent clause, and one in the ellipsis clause): unmarked means that the (semantically unmarked) masculine NP is in the antecedent, marked means that the (semantically marked) feminine NP is in the antecedent.

The second factor is genderMatch, which manipulates whether the elided NP matches the gender of the second NP (the subject of the ellipsis clause).

The tables below provide example sentences for each condition for each word.

Actor/actress	GENDERORDER	GENDERMATCH
John is an actor and Bill is too.	unmarked	Match
John is an actor and Mary is too.	unmarked	Mismatch
Mary is an actress and Sue is too.	marked	Match
Mary is an actress and John is too.	marked	Mismatch

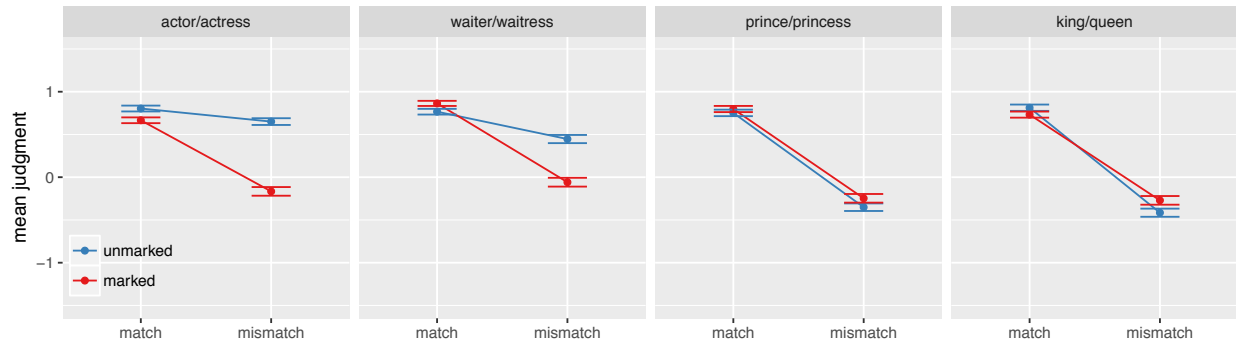
Waiter/waitress	GENDERORDER	GENDERMATCH
John is a waiter and Bill is too.	unmarked	match
John is a waiter and Mary is too.	unmarked	mismatch
Mary is a waitress and Sue is too.	marked	match
Mary is a waitress and John is too.	marked	mismatch

Prince/princess	GENDERORDER	GENDERMATCH
John is a prince and Bill is too.	unmarked	match
John is a prince and Mary is too.	unmarked	mismatch
Mary is a princess and Sue is too.	marked	match
Mary is a princess and John is too.	marked	mismatch

King/queen	GENDERORDER	GENDERMATCH
John is a king and Bill is too.	unmarked	Match
John is a king and Mary is too.	unmarked	Mismatch
Mary is a queen and Sue is too.	marked	Match
Mary is a queen and John is too.	marked	mismatch

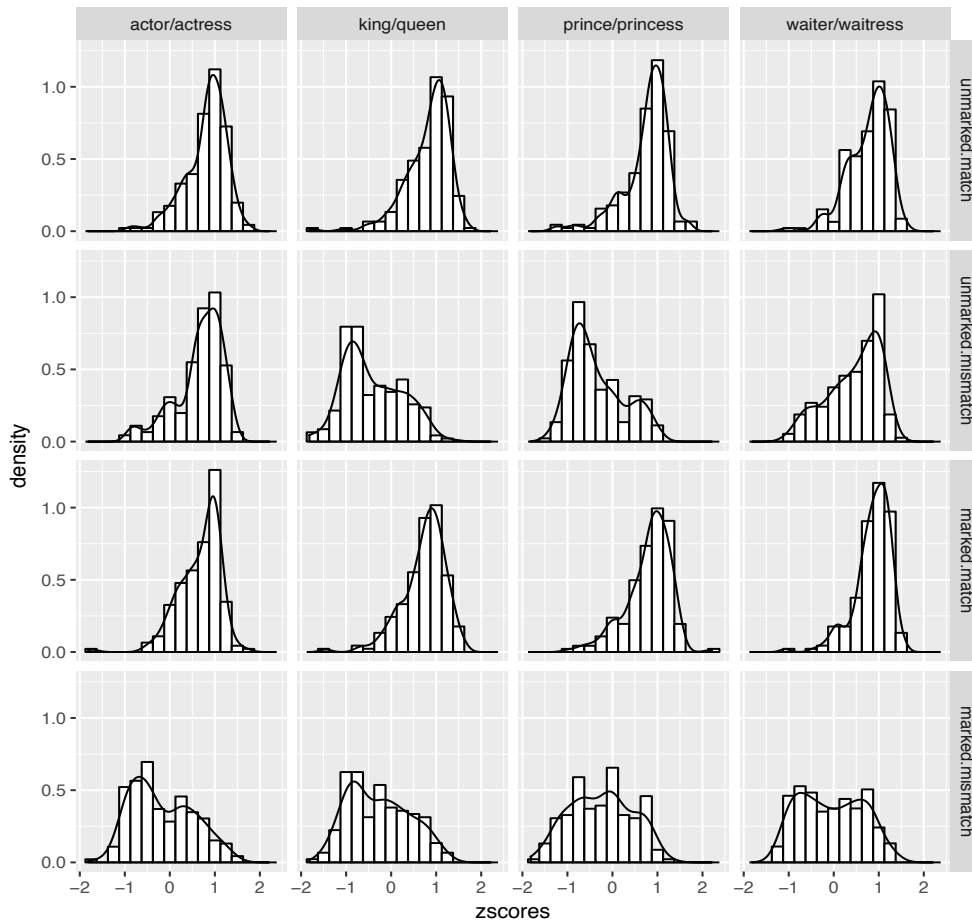
## Part 1: Interaction

Your assignment is to use what you learned in class this week to create a plot that looks like this:



## Part 2: Distribution plot

Your assignment is to use what you learned in class this week to create a plot that looks like this:



Submit a pdf of each plot to me.