

LLM_Logic

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```
# importing packages and data  
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --  
## v dplyr      1.1.4      v readr      2.1.5  
## v forcats    1.0.0      v stringr    1.5.1  
## v ggplot2    3.4.4      v tibble     3.2.1  
## v lubridate  1.9.3      v tidyr      1.3.0  
## v purrr      1.0.2  
## -- Conflicts ----- tidyverse_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag()    masks stats::lag()  
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(readr)  
dataset <- read_csv("output_responses_1-7.csv")
```

```
## Rows: 212 Columns: 5  
## -- Column specification -----  
## Delimiter: ","  
## chr (4): Prompt, Continuation, Condition, Study  
## dbl (1): Response  
##  
## i Use 'spec()' to retrieve the full column specification for this data.  
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

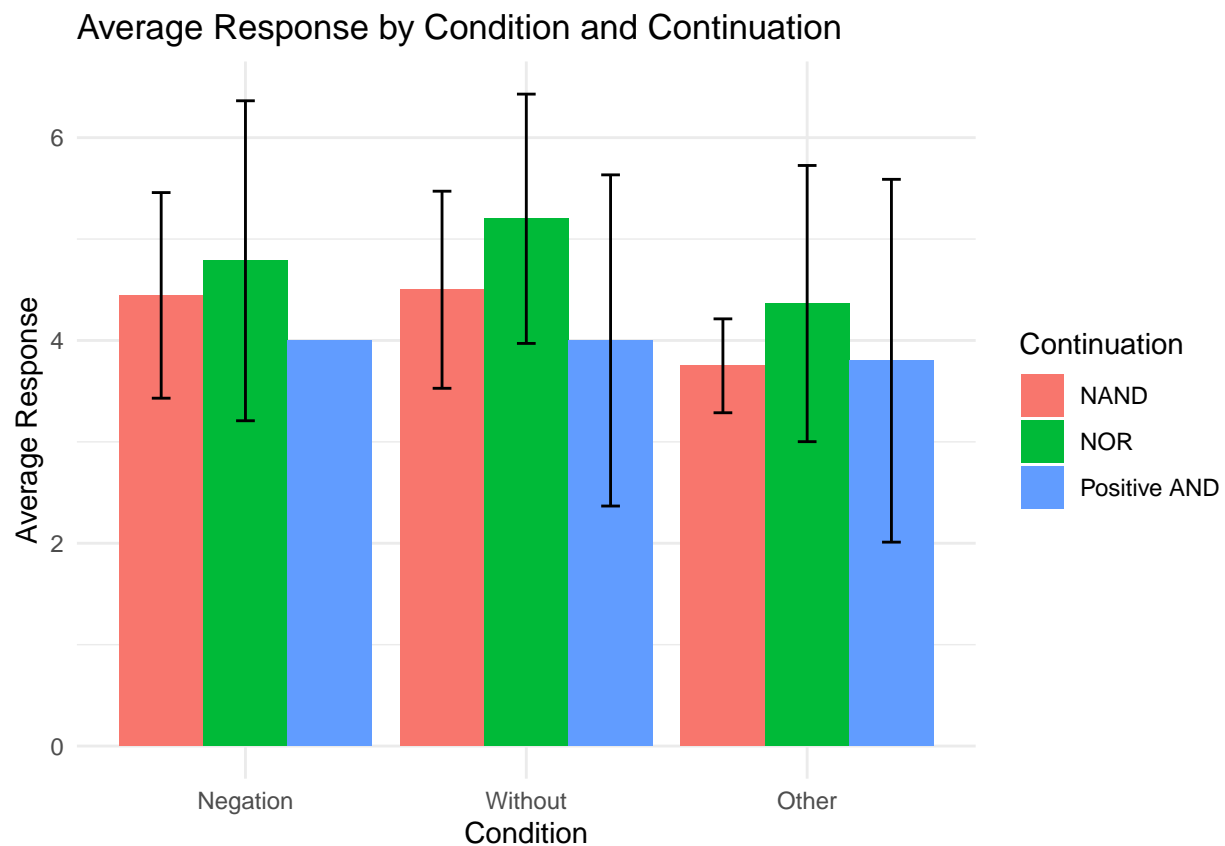
```
# preparing dataframe  
# removing controls from dataset  
dataset = dataset %>%  
  filter(Condition != "Control")
```

```
# renaming values  
dataset$Condition = factor(dataset$Condition, levels = c("Experimental_N", "Experimental_W", "Experimental_U"))
```

```
# bar plot with created and original study prompts combined  
# finding average responses for each grouping of variables  
avg_responses = dataset %>%  
  group_by(Continuation, Condition) %>%  
  summarise(avg_response = mean(Response), sd = sd(Response, na.rm = TRUE))
```

```
## 'summarise()' has grouped output by 'Continuation'. You can override using the
## '.groups' argument.
```

```
# plotting
ggplot(avg_responses, aes(x = Condition, y = avg_response, fill = Continuation)) +
  geom_bar(stat = "identity", position = "dodge") +
  geom_errorbar(aes(ymin = avg_response - sd, ymax = avg_response + sd), na.rm = TRUE, position = position_dodge()) +
  labs(title = "Average Response by Condition and Continuation",
       x = "Condition",
       y = "Average Response") +
  theme_minimal()
```



```
# bar plot with separate graphs for original and created prompts
# finding average responses for each grouping of variables including study
avg_responses_S = dataset %>%
  group_by(Continuation, Condition, Study) %>%
  summarise(avg_response = mean(Response), sd = sd(Response, na.rm = TRUE))
```

```
## 'summarise()' has grouped output by 'Continuation', 'Condition'. You can
## override using the '.groups' argument.
```

```
# plotting
ggplot(avg_responses_S, aes(x = Condition, y = avg_response, fill = Continuation)) +
  geom_bar(stat = "identity", position = "dodge") +
  facet_wrap(~ Study) +
```

```
geom_errorbar(aes(ymin = avg_response - sd, ymax = avg_response + sd), na.rm = TRUE, position = position_dodge2("condition"),
labs(title = "Average Response by Condition and Continuation, separated by study",
      x = "Condition",
      y = "Average Response") +
theme_minimal()
```

