

Data transformation with dplyr

2021-11-07

```
judge_url <- "https://biostat2.uni.lu/practicals/data/judgments.tsv"
judgments <- readr::read_tsv(judge_url)
```

I import the data from the website.

```
## Rows: 188 Columns: 158

## -- Column specification -----
## Delimiter: "\t"
## chr   (5): start_date, end_date, condition, gender, logbook
## dbl (153): finished, subject, age, mood_pre, mood_post, STAI_pre_1_1, STAI_p...

##
## 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.
```

Assign to the name judgments

```
glimpse(judgments)
```

I use glimpse() to identify columns and column types.

```
## Rows: 188
## Columns: 158
## $ start_date      <chr> "11/3/2014", "11/3/2014", "11/3/2014", "11/~
## $ end_date        <chr> "11/3/2014", "11/3/2014", "11/3/2014", "11/~
## $ finished        <dbl> 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1~
## $ condition       <chr> "control", "stress", "stress", "stress", "c~
## $ subject         <dbl> 2, 1, 3, 4, 7, 6, 5, 9, 16, 13, 18, 14, 12,~
## $ gender          <chr> "female", "female", "female", "female", "fe~
## $ age             <dbl> 24, 19, 19, 22, 22, 22, 18, 20, 21, 19, 19,~
## $ mood_pre        <dbl> 81, 59, 22, 53, 48, 73, NA, 100, 67, 30, 55~
## $ mood_post       <dbl> NA, 42, 60, 68, NA, 73, NA, NA, 74, 68, 57,~
## $ STAI_pre_1_1    <dbl> 2, 3, 4, 2, 1, 2, 2, 1, 2, 4, 2, 1, 2, 1, 1~
## $ STAI_pre_1_2    <dbl> 1, 2, 3, 2, 1, 2, 2, 1, 2, 2, 3, 2, 2, 1, 1~
## $ STAI_pre_1_3    <dbl> 2, 3, 3, 2, 1, 1, 1, 1, 1, 3, 1, 2, 2, 2, 2~
## $ STAI_pre_1_4    <dbl> 2, 1, 3, 2, 1, 1, 1, 1, 1, 3, 1, 2, 1, 1, 1~
```

## \$ STAI_pre_1_5	<dbl> 2, 3, 4, 3, 2, 2, 2, 1, 2, 3, 2, 2, 2, 2, 2, 2~
## \$ STAI_pre_1_6	<dbl> 2, 2, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 1, 1~
## \$ STAI_pre_1_7	<dbl> 2, 3, 3, 1, 1, 2, 1, 1, 1, 3, 1, 1, 2, 1, 3~
## \$ STAI_pre_2_1	<dbl> 2, 3, 4, 3, 3, 2, 2, 2, 2, 4, 3, 3, 2, 4, 3~
## \$ STAI_pre_2_2	<dbl> 1, 2, 2, 1, 1, 1, 1, 1, 1, 2, 1, 1, 1, 1, 1~
## \$ STAI_pre_2_3	<dbl> 1, 2, 3, 3, 3, 2, 2, 1, 2, 3, 2, 3, 3, 3, 2~
## \$ STAI_pre_2_4	<dbl> 1, 2, 4, 3, 3, 2, 2, 1, 2, 4, 3, 3, 3, 3, 2~
## \$ STAI_pre_2_5	<dbl> 1, 2, 4, 1, 1, 2, 1, 1, 1, 3, 1, 2, 1, 2, 1~
## \$ STAI_pre_2_6	<dbl> 1, 3, 4, 1, 1, 2, 1, 1, 1, 3, 1, 1, 1, 2, 2~
## \$ STAI_pre_2_7	<dbl> 1, 1, 2, 2, 1, 1, 2, 1, 1, 1, 2, 1, 2, 3, 1~
## \$ STAI_pre_3_1	<dbl> 2, 3, 4, 3, 1, 2, 2, 1, 2, 4, 2, 2, 3, 2, 3~
## \$ STAI_pre_3_2	<dbl> 2, 3, 3, 3, 2, 2, 2, 1, 2, 3, 2, 2, 2, 3, 2~
## \$ STAI_pre_3_3	<dbl> 2, 3, 2, 2, 2, 2, 1, 1, 1, 3, 1, 1, 2, 1, 2~
## \$ STAI_pre_3_4	<dbl> 1, 2, 3, 1, 1, 1, 2, 1, 2, 3, 1, 1, 1, 1, 1~
## \$ STAI_pre_3_5	<dbl> 2, 3, 4, 3, 3, 2, 2, 1, 2, 4, 2, 2, 3, 2, 3~
## \$ STAI_pre_3_6	<dbl> 2, 3, 4, 3, 3, 2, 2, 1, 2, 4, 2, 2, 2, 2, 2~
## \$ STAI_post_1_1	<dbl> NA, 3, 3, 2, NA, 2, NA, NA, 2, 2, 2, 3, NA, ~
## \$ STAI_post_1_2	<dbl> NA, 3, 3, 2, NA, 2, NA, NA, 2, 2, 2, 2, NA, ~
## \$ STAI_post_1_3	<dbl> NA, 3, 2, 1, NA, 1, NA, NA, 1, 1, 2, 2, NA, ~
## \$ STAI_post_1_4	<dbl> NA, 3, 2, 1, NA, 1, NA, NA, 1, 2, 1, 2, NA, ~
## \$ STAI_post_1_5	<dbl> NA, 2, 2, 2, NA, 2, NA, NA, 2, 3, 3, 3, NA, ~
## \$ STAI_post_1_6	<dbl> NA, 2, 1, 1, NA, 1, NA, NA, 1, 1, 3, 2, NA, ~
## \$ STAI_post_1_7	<dbl> NA, 3, 1, 1, NA, 2, NA, NA, 1, 1, 1, 1, NA, ~
## \$ STAI_post_2_1	<dbl> NA, 2, 3, 2, NA, 2, NA, NA, 2, 2, 3, 2, NA, ~
## \$ STAI_post_2_2	<dbl> NA, 2, 1, 1, NA, 1, NA, NA, 1, 1, 1, 1, NA, ~
## \$ STAI_post_2_3	<dbl> NA, 3, 3, 2, NA, 2, NA, NA, 2, 3, 3, 3, NA, ~
## \$ STAI_post_2_4	<dbl> NA, 3, 3, 2, NA, 2, NA, NA, 2, 3, 3, 3, NA, ~
## \$ STAI_post_2_5	<dbl> NA, 3, 1, 1, NA, 1, NA, NA, 1, 1, 1, 1, NA, ~
## \$ STAI_post_2_6	<dbl> NA, 3, 1, 1, NA, 1, NA, NA, 1, 1, 2, 1, NA, ~
## \$ STAI_post_2_7	<dbl> NA, 1, 1, 2, NA, 1, NA, NA, 1, 1, 2, 1, NA, ~
## \$ STAI_post_3_1	<dbl> NA, 2, 3, 2, NA, 2, NA, NA, 2, 3, 3, 3, NA, ~
## \$ STAI_post_3_2	<dbl> NA, 2, 3, 2, NA, 2, NA, NA, 2, 3, 4, 3, NA, ~
## \$ STAI_post_3_3	<dbl> NA, 3, 1, 1, NA, 1, NA, NA, 1, 1, 1, 2, NA, ~
## \$ STAI_post_3_4	<dbl> NA, 2, 1, 1, NA, 1, NA, NA, 1, 1, 2, 1, NA, ~
## \$ STAI_post_3_5	<dbl> NA, 3, 3, 3, NA, 3, NA, NA, 2, 3, 3, 3, NA, ~
## \$ STAI_post_3_6	<dbl> NA, 3, 3, 2, NA, 3, NA, NA, 2, 3, 3, 3, NA, ~
## \$ moral_dilemma_dog	<dbl> 9, 9, 8, 8, 3, 9, 9, 9, 6, 6, 8, 7, 9, 9, 6~
## \$ moral_dilemma_wallet	<dbl> 9, 9, 7, 4, 9, 9, 5, 4, 9, 8, 7, 9, 9, 9, 7~
## \$ moral_dilemma_plane	<dbl> 8, 9, 8, 8, 9, 9, 7, 1, 3, 9, 9, 6, 9, 9, 4~
## \$ moral_dilemma_resume	<dbl> 7, 8, 5, 6, 5, 9, 3, 7, 9, 8, 5, 9, 8, 9, 7~
## \$ moral_dilemma_kitten	<dbl> 9, 9, 8, 9, 5, 8, 6, 9, 9, 9, 8, 9, 7, 9, 6~
## \$ moral_dilemma_trolley	<dbl> 5, 3, 5, 2, 4, 5, 3, 1, 1, 9, 2, 4, 5, 5, 3~
## \$ moral_dilemma_control	<dbl> 9, 2, 9, 8, 8, 6, 8, 7, 8, 6, 7, 8, 8, 3, 7~
## \$ presentation_experience	<dbl> NA, 2, 1, 2, NA, 2, NA, NA, 2, 2, 2, 2, NA, ~
## \$ presentation_unpleasant	<dbl> NA, 63, 68, 32, NA, 63, NA, NA, 14, 54, 82, ~
## \$ presentation_fun	<dbl> NA, 58, 26, 59, NA, 54, NA, NA, 78, 42, 7, ~
## \$ presentation_challenge	<dbl> NA, 58, 65, 80, NA, 50, NA, NA, 47, 64, 72, ~
## \$ PBC_1	<dbl> 3, NA, NA, NA, 3, NA, 3, 1, NA, NA, NA, NA, ~
## \$ PBC_2	<dbl> 3, NA, NA, NA, 3, NA, 3, 4, NA, NA, NA, NA, ~
## \$ PBC_3	<dbl> 5, NA, NA, NA, 3, NA, 3, 1, NA, NA, NA, NA, ~
## \$ PBC_4	<dbl> 5, NA, NA, NA, 3, NA, 5, 4, NA, NA, NA, NA, ~
## \$ PBC_5	<dbl> 5, NA, NA, NA, 2, NA, 5, 4, NA, NA, NA, NA, ~
## \$ REI_1	<dbl> 5, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## \$ REI_2	<dbl> 4, NA, NA, NA, 3, NA, 4, 5, NA, NA, NA, NA, ~

## \$ REI_3	<dbl>	5,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_4	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_5	<dbl>	4,	NA,	NA,	NA,	4,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_6	<dbl>	5,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_7	<dbl>	3,	NA,	NA,	NA,	3,	NA,	3,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_8	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_9	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_10	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_11	<dbl>	5,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_12	<dbl>	5,	NA,	NA,	NA,	NA,	NA,	3,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_13	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	2,	NA,	NA,	NA,	NA,	~
## \$ REI_14	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	2,	NA,	NA,	NA,	NA,	~
## \$ REI_15	<dbl>	4,	NA,	NA,	NA,	3,	NA,	3,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_16	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_17	<dbl>	3,	NA,	NA,	NA,	3,	NA,	3,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_18	<dbl>	5,	NA,	NA,	NA,	3,	NA,	2,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_19	<dbl>	1,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_20	<dbl>	3,	NA,	NA,	NA,	3,	NA,	5,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_21	<dbl>	5,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_22	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_23	<dbl>	4,	NA,	NA,	NA,	3,	NA,	5,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_24	<dbl>	2,	NA,	NA,	NA,	3,	NA,	1,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_25	<dbl>	3,	NA,	NA,	NA,	3,	NA,	2,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_26	<dbl>	5,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_27	<dbl>	5,	NA,	NA,	NA,	3,	NA,	2,	1,	NA,	NA,	NA,	NA,	~
## \$ REI_28	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_29	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_30	<dbl>	4,	NA,	NA,	NA,	3,	NA,	3,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_31	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_32	<dbl>	3,	NA,	NA,	NA,	3,	NA,	3,	1,	NA,	NA,	NA,	NA,	~
## \$ REI_33	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_34	<dbl>	3,	NA,	NA,	NA,	3,	NA,	3,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_35	<dbl>	4,	NA,	NA,	NA,	3,	NA,	5,	5,	NA,	NA,	NA,	NA,	~
## \$ REI_36	<dbl>	3,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_37	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_38	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,	NA,	NA,	~
## \$ REI_39	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ REI_40	<dbl>	4,	NA,	NA,	NA,	3,	NA,	3,	5,	NA,	NA,	NA,	NA,	~
## \$ MAIA_1_1	<dbl>	2,	NA,	NA,	NA,	3,	NA,	4,	3,	NA,	NA,	NA,	NA,	~
## \$ MAIA_1_2	<dbl>	4,	NA,	NA,	NA,	3,	NA,	4,	4,	NA,	NA,			

```
## $ MAIA_2_1 <dbl> 4, NA, NA, NA, 3, NA, 3, 5, NA, NA, NA, NA, ~
## $ MAIA_2_2 <dbl> 4, NA, NA, NA, 3, NA, 4, 5, NA, NA, NA, NA, ~
## $ MAIA_2_3 <dbl> 4, NA, NA, NA, 3, NA, 3, 2, NA, NA, NA, NA, ~
## $ MAIA_2_4 <dbl> 4, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## $ MAIA_2_5 <dbl> 4, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## $ MAIA_2_6 <dbl> 4, NA, NA, NA, 3, NA, 5, 4, NA, NA, NA, NA, ~
## $ MAIA_2_7 <dbl> 4, NA, NA, NA, 3, NA, 3, 2, NA, NA, NA, NA, ~
## $ MAIA_2_8 <dbl> 4, NA, NA, NA, 3, NA, 3, 3, NA, NA, NA, NA, ~
## $ MAIA_2_9 <dbl> 4, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## $ MAIA_2_10 <dbl> 4, NA, NA, NA, 3, NA, 2, 4, NA, NA, NA, NA, ~
## $ MAIA_2_11 <dbl> 4, NA, NA, NA, 3, NA, 3, 3, NA, NA, NA, NA, ~
## $ MAIA_2_12 <dbl> 3, NA, NA, NA, 3, NA, 2, 0, NA, NA, NA, NA, ~
## $ MAIA_2_13 <dbl> 3, NA, NA, NA, 3, NA, 3, 3, NA, NA, NA, NA, ~
## $ MAIA_2_14 <dbl> 4, NA, NA, NA, 3, NA, 3, 4, NA, NA, NA, NA, ~
## $ MAIA_2_15 <dbl> 4, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## $ MAIA_2_16 <dbl> 4, NA, NA, NA, 3, NA, 4, 4, NA, NA, NA, NA, ~
## $ STAI_pre <dbl> 32, 49, 65, 42, 33, 34, 32, 21, 31, 60, 34, ~
## $ STAI_post <dbl> NA, 51, 41, 32, NA, 33, NA, NA, 30, 38, 45, ~
## $ MAIA_noticing <dbl> 14, NA, NA, NA, 12, NA, 17, 15, NA, NA, NA, ~
## $ MAIA_not_distracting <dbl> 6, NA, NA, NA, 9, NA, 8, 10, NA, NA, NA, NA~
## $ MAIA_not_worrying <dbl> 11, NA, NA, NA, 9, NA, 12, 13, NA, NA, NA, ~
## $ MAIA_attention_regulation <dbl> 27, NA, NA, NA, 21, NA, 16, 30, NA, NA, NA, ~
## $ MAIA_emotional_awareness <dbl> 20, NA, NA, NA, 15, NA, 20, 19, NA, NA, NA, ~
## $ MAIA_self_regulation <dbl> 16, NA, NA, NA, 12, NA, 12, 13, NA, NA, NA, ~
## $ MAIA_body_listening <dbl> 10, NA, NA, NA, 9, NA, 8, 6, NA, NA, NA, NA~
## $ MAIA_trusting <dbl> 12, NA, NA, NA, 9, NA, 11, 12, NA, NA, NA, ~
## $ PBC <dbl> 21, NA, NA, NA, 14, NA, 19, 14, NA, NA, NA, NA, ~
## $ REI_rational_ability <dbl> 38, NA, NA, NA, 31, NA, 37, 38, NA, NA, NA, ~
## $ REI_rational_engagement <dbl> 38, NA, NA, NA, NA, NA, 26, 41, NA, NA, NA, ~
## $ REI_experiential_ability <dbl> 36, NA, NA, NA, 30, NA, 43, 43, NA, NA, NA, ~
## $ REI_experiential_engagement <dbl> 39, NA, NA, NA, 30, NA, 40, 38, NA, NA, NA, ~
## $ moral_judgment <dbl> 8.000000, 7.000000, 7.142857, 6.428571, 6.1~
## $ moral_judgment_disgust <dbl> 8.666667, 9.000000, 8.000000, 8.333333, 5.6~
## $ moral_judgment_non_disgust <dbl> 7.000000, 6.666667, 5.666667, 4.000000, 6.0~
## $ presentation_evaluation <dbl> NA, 3, 3, 4, NA, 4, NA, NA, 4, 3, 3, 3, NA, ~
## $ logbook <chr> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, ~
## $ exclude <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0~
```

```
judgments %>%
  select(starts_with('STAI'))
```

I select all columns that refer to the STAI questionnaire

```
## # A tibble: 188 x 42
##   STAI_pre_1_1 STAI_pre_1_2 STAI_pre_1_3 STAI_pre_1_4 STAI_pre_1_5 STAI_pre_1_6
##   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 2 1 2 2 2 2
## 2 3 2 3 1 3 2
## 3 4 3 3 3 4 2
## 4 2 2 2 2 3 1
## 5 1 1 1 1 2 1
```

```
## 6      2      2      1      1      2      1
## 7      2      2      1      1      2      1
## 8      1      1      1      1      1      1
## 9      2      2      1      1      2      1
## 10     4      2      3      3      3      1
## # ... with 178 more rows, and 36 more variables: STAI_pre_1_7 <dbl>,
## #   STAI_pre_2_1 <dbl>, STAI_pre_2_2 <dbl>, STAI_pre_2_3 <dbl>,
## #   STAI_pre_2_4 <dbl>, STAI_pre_2_5 <dbl>, STAI_pre_2_6 <dbl>,
## #   STAI_pre_2_7 <dbl>, STAI_pre_3_1 <dbl>, STAI_pre_3_2 <dbl>,
## #   STAI_pre_3_3 <dbl>, STAI_pre_3_4 <dbl>, STAI_pre_3_5 <dbl>,
## #   STAI_pre_3_6 <dbl>, STAI_post_1_1 <dbl>, STAI_post_1_2 <dbl>,
## #   STAI_post_1_3 <dbl>, STAI_post_1_4 <dbl>, STAI_post_1_5 <dbl>, ...
```

```
judgments %>%
  filter(age > 25) %>%
  select (subject)
```

I select all subjects older than 25

```
## # A tibble: 3 x 1
##   subject
##   <dbl>
## 1     41
## 2     61
## 3    107
```

I retrieve all subjects younger than 20 which are in the stress group The column for the group is condition.

```
judgments %>%
  filter(age < 20, condition == "stress") %>%
  select (subject)
```

```
## # A tibble: 58 x 1
##   subject
##   <dbl>
## 1      1
## 2      3
## 3     13
## 4     18
## 5     14
## 6     17
## 7     15
## 8     25
## 9     22
## 10    32
## # ... with 48 more rows
```

```
judgments %>%
  mutate(gender = case_when(
    gender == 'female' ~ 'f',
    gender == 'male' ~ 'm'
  )) %>%
  select(subject, age, gender)
```

I abbreviate the gender column such that only the first character remains

```
## # A tibble: 188 x 3
##   subject age gender
##   <dbl> <dbl> <chr>
## 1     2    24 f
## 2     1    19 f
## 3     3    19 f
## 4     4    22 f
## 5     7    22 f
## 6     6    22 f
## 7     5    18 f
## 8     9    20 m
## 9    16    21 f
## 10    13    19 f
## # ... with 178 more rows
```

I normalize the values in the REI group Divide all entries in the REI questionnaire by 5, the maximal value.

```
judgments %>%
  mutate(across(contains('REI'), ` / `, 5)) %>%
  select(contains('REI'))
```

```
## # A tibble: 188 x 44
##   REI_1 REI_2 REI_3 REI_4 REI_5 REI_6 REI_7 REI_8 REI_9 REI_10 REI_11 REI_12
##   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1  1  0.8  1  0.8  0.8  1  0.6  0.8  0.6  0.8  1  1
## 2 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## 3 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## 4 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## 5 0.6 0.6 0.6 0.6 0.8 0.6 0.6 0.6 0.6 0.6 0.6 NA
## 6 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## 7 0.8 0.8 0.8 0.8 0.8 0.8 0.6 0.8 0.8 0.8 0.8 0.6
## 8 0.8 1  1  1  1  1  1  1  0.6 0.8 1  0.8
## 9 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## 10 NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA  NA
## # ... with 178 more rows, and 32 more variables: REI_13 <dbl>, REI_14 <dbl>,
## # REI_15 <dbl>, REI_16 <dbl>, REI_17 <dbl>, REI_18 <dbl>, REI_19 <dbl>,
## # REI_20 <dbl>, REI_21 <dbl>, REI_22 <dbl>, REI_23 <dbl>, REI_24 <dbl>,
## # REI_25 <dbl>, REI_26 <dbl>, REI_27 <dbl>, REI_28 <dbl>, REI_29 <dbl>,
## # REI_30 <dbl>, REI_31 <dbl>, REI_32 <dbl>, REI_33 <dbl>, REI_34 <dbl>,
## # REI_35 <dbl>, REI_36 <dbl>, REI_37 <dbl>, REI_38 <dbl>, REI_39 <dbl>,
## # REI_40 <dbl>, REI_rational_ability <dbl>, ...
```

I compute the average and the standard deviation for all moral dilemma columns. The resulting column names contain the names of “avg” (for the average) and “sd” for the standard deviation.

```
judgments %>%
  summarise(across(starts_with('moral_dil'),
                    list(avg = ~ mean(.x, na.rm = TRUE),
                        sd = ~ sd(.x, na.rm = TRUE))))
```



```
## # A tibble: 1 x 14
##   moral_dilemma_dog_avg moral_dilemma_dog_sd moral_dilemma_wal~ moral_dilemma_w~
##   <dbl>          <dbl>          <dbl>          <dbl>
## 1      7.35          2.17          7.14          2.02
## # ... with 10 more variables: moral_dilemma_plane_avg <dbl>,
## #   moral_dilemma_plane_sd <dbl>, moral_dilemma_resume_avg <dbl>,
## #   moral_dilemma_resume_sd <dbl>, moral_dilemma_kitten_avg <dbl>,
## #   moral_dilemma_kitten_sd <dbl>, moral_dilemma_trolley_avg <dbl>,
## #   moral_dilemma_trolley_sd <dbl>, moral_dilemma_control_avg <dbl>,
## #   moral_dilemma_control_sd <dbl>
```