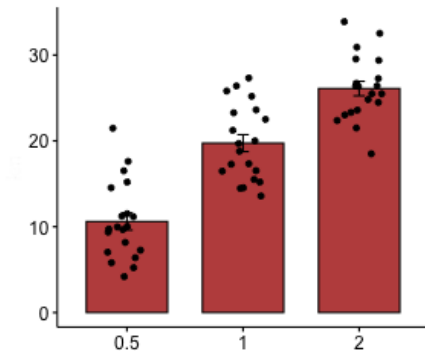


## Appendix A- Bar Charts and Jitter Plots

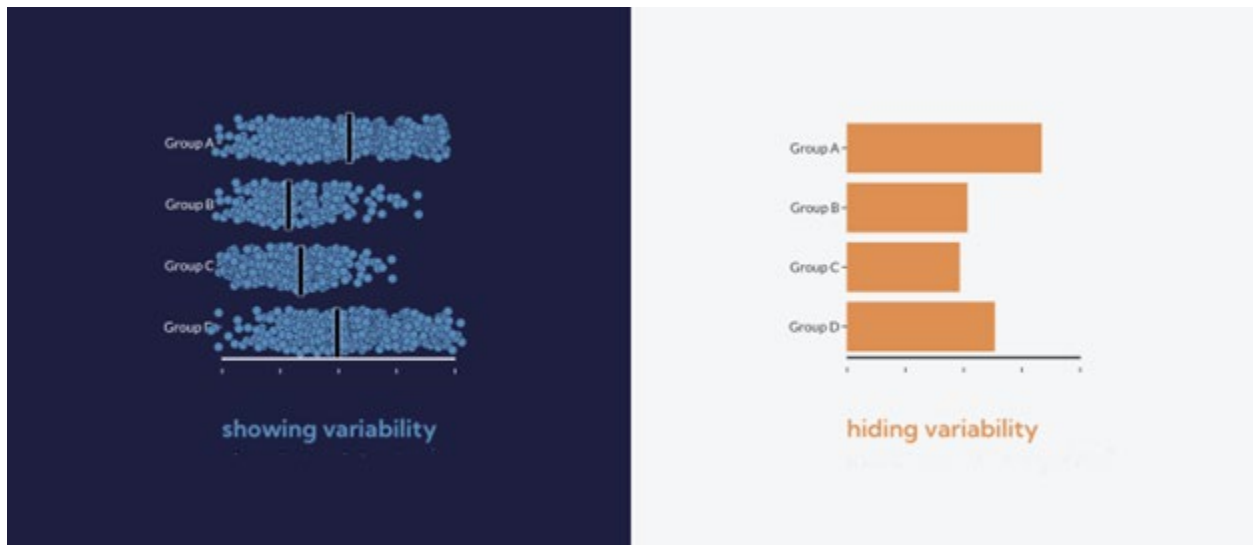
### What is a Jitter Plot?

A Jitter plot is like a bar chart only instead of bars representing the average value or the total number, the jitter plot represents each data point with a dot or circle. Bar charts are great at communicating some numbers such as totals, but when we communicate averages, a bar chart hides variability.



\* Here is an example of a bar chart and a jitter plot together. The dots represent each person's data. Using bars alone to communicate the average hides within-group variability. The jitter plot makes that variability visible.

\*\*Here is an example of a jitter plot (left) and a bar chart (right) using the same data:



You can see that the bar chart focuses our attention on the length of the bars. It also encourages us to draw conclusions about the people represented by Group A, B, C, and D. This is how bar charts can leave room for biases and conclusions to be drawn that confirm stereotypes. For example, we see that the people in Group A have the most; the people in Group C have the least.

Looking at that same data in the jitter plot we become aware of the variability within each group and we no longer lean toward drawing conclusions about all the people in a group.

\* source of image: <https://www.datanovia.com/en/blog/how-to-easily-create-barplots-with-error-bars-in-r/>

\*\* source of image: <https://nightingaledvs.com/unfair-comparisons-how-visualizing-social-inequality-can-make-it-worse/>