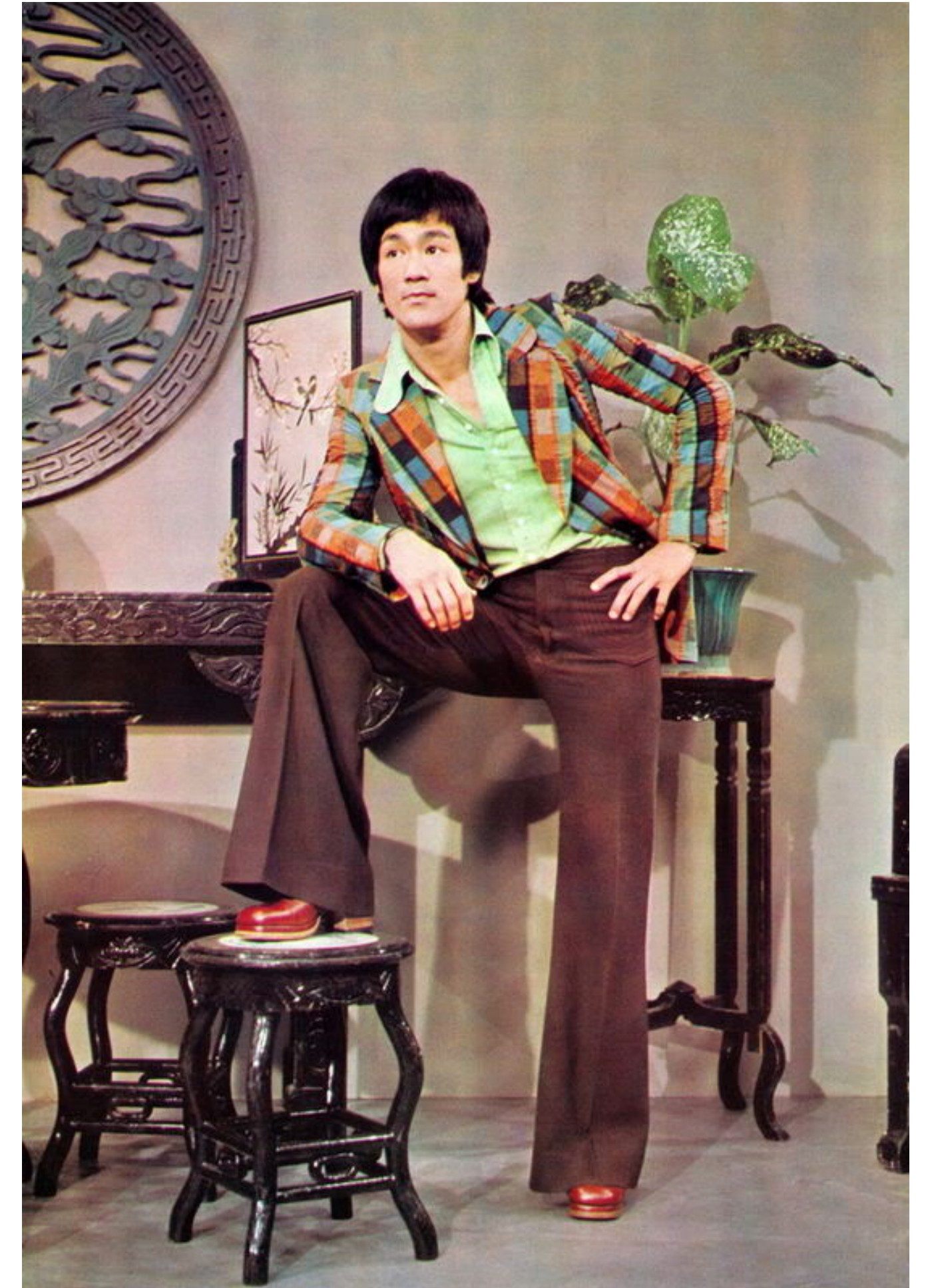


Lec 32 Tactile Simulation

Imagine its the 1970s



**... and all the corresponding views
about gender and women in the
workplace**



Context

Numbers are numbers, but data has context!



- **48 male bank supervisors were asked if they would recommend a particular candidate for promotion**
- **24 female and 24 male candidates were considered (recall this data was collected in the 70s)**

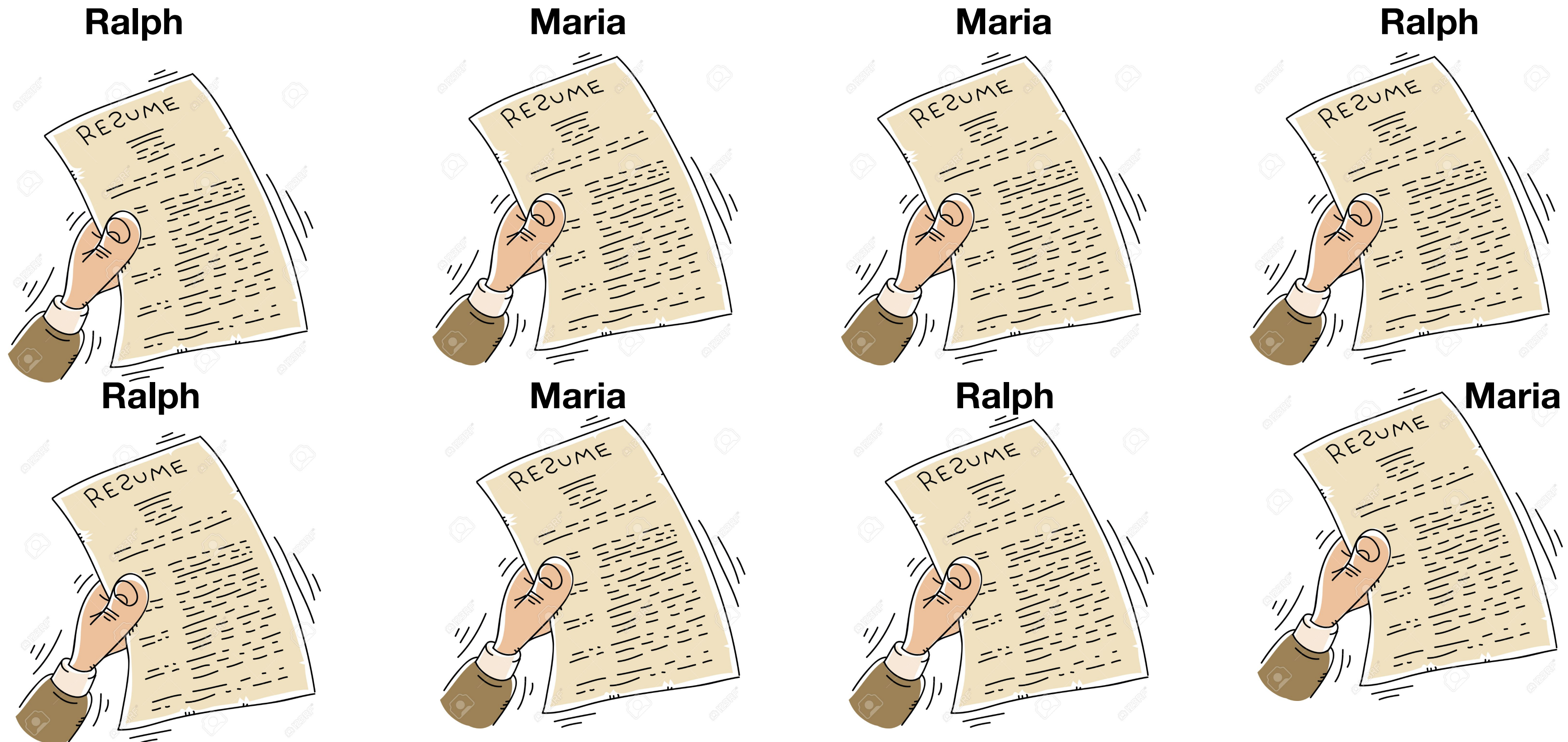
Research Question & Methodology

- **Research question: Does (binary) gender have an effect on whether a candidate gets recommended for promotion?**
- **In other words, what is the causal effect of**
 - **X: Gender**
 - **Y: Candidate gets promoted or not**
- **Question to you: What is the best way to answer this question?
How can we answer this question?**

How researchers did it

Researchers sent out
48 identical resumes...

... except the name on the top!



Data

Console ~/Documents/ModernDive/moderndive/ ↗

```
> library(moderndive)
> promotions
# A tibble: 48 x 3
   id decision gender
  <int> <fct>   <fct>
1     1 not    male
2     2 not    male
3     3 not    male
4     4 not    female
5     5 not    female
6     6 not    female
7     7 not    female
8     8 not    female
9     9 not    female
10    10 not    female
# ... with 38 more rows
> |
```

| Original counts: | | | |
|------------------|--------------|----------|-------|
| | not promoted | promoted | total |
| m | 3 | 21 | 24 |
| f | 10 | 14 | 24 |
| total | 13 | 35 | 48 |

| value | | calculation | result |
|------------------------------|--|---------------|--------|
| proportion male promoted | | 21 / 24 | 0.875 |
| proportion female promoted | | 14 / 24 | 0.583 |
| difference in favor of males | | 0.875 - 0.583 | 0.292 |

**Men were promoted at
29.2% higher rate!**

**But is this difference due to chance? Or is
it because of systematic sexism in the
workplace in the 1970s?**

Imagine...



**A hypothetical
universe...**

**Where gender makes
no difference ...**

In this hypothetical world...



Ralph



Is the same as ...

Maria



Maria



Ralph

