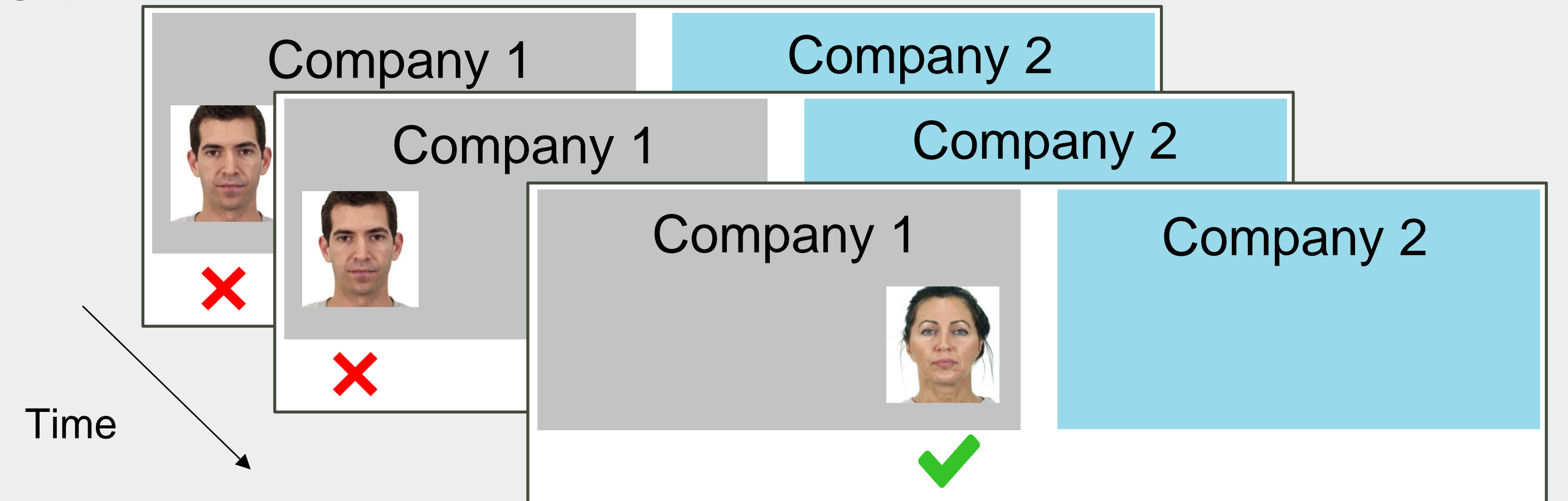# The Grouping Method for Decisions Based on Multidimensional Information

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Experiments 1-4: Delivery Services

Participants were shown sequences of deliveries made by two delivery companies. On each screen, they were shown whether a delivery arrived on-time/late and the delivery driver.

Stimuli: Same Performance

Both companies had the same performance (50% on-time). One company had better **Grouping Performance** by driver.


Worse Grouping Performance company (25%)

Better Grouping Performance company (75%)
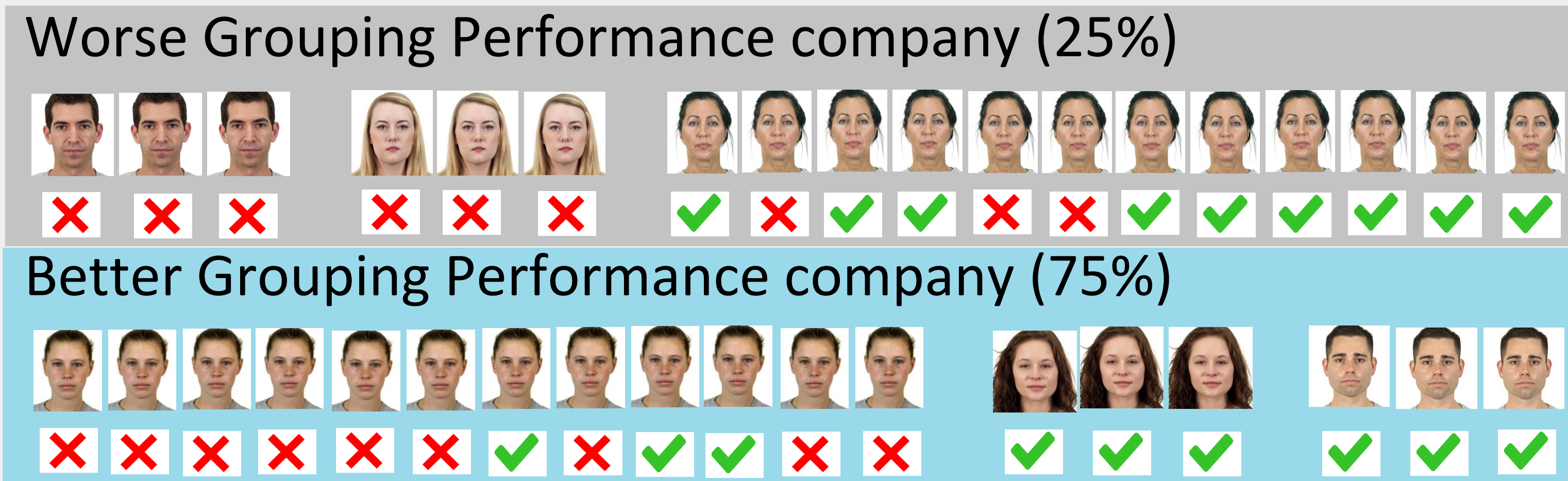
Sample and Measures

In Exp 1 (N=89) and Exp 2 (N=71) participants were asked to *rate* the companies' performance and in Exp 3 (N=99) and Exp 4 (N=98) to *choose* the company that performed better.
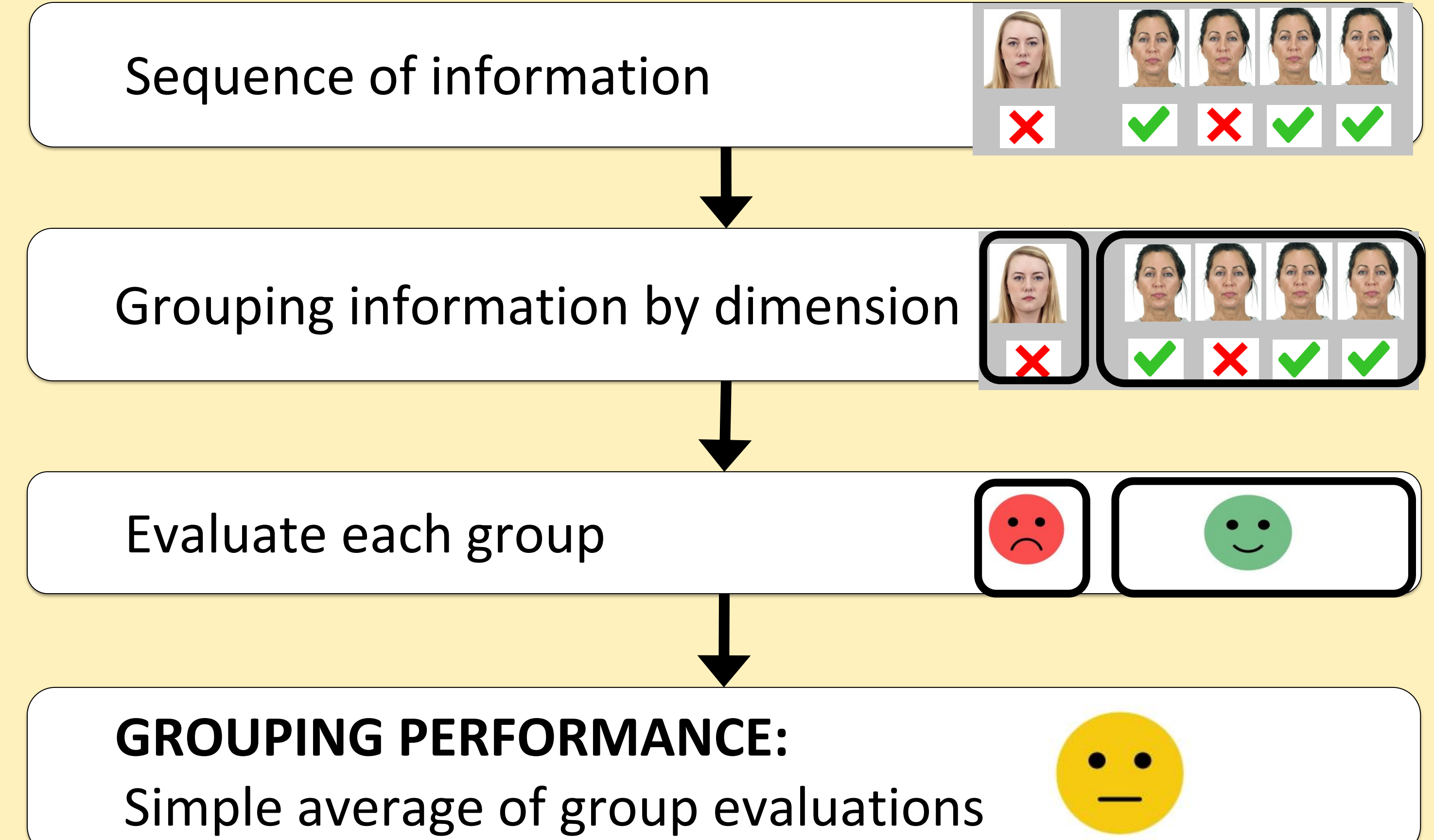
Results

Participants gave higher ratings and tended to choose the Better Grouping Performance companies (Exp 3: $t(79)=3.32$, $p=0.001$; Exp 4: $t(62)=2.98$, $p=0.004$).


Which company performed better?
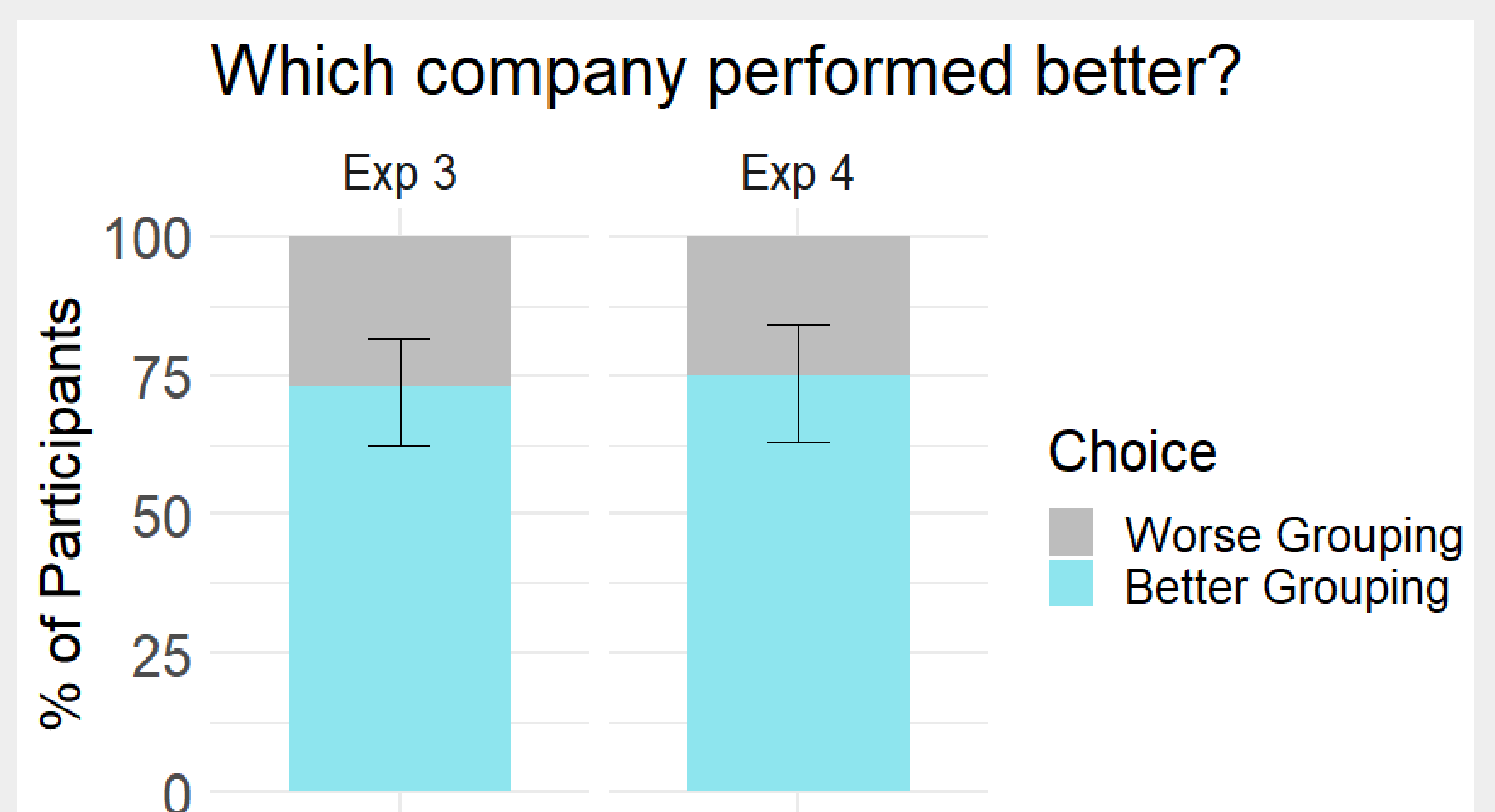
Summary

○ People often evaluate options based on ample information containing several dimensions.

○ In this setting, we consider the *grouping method* for evaluations:

| Sequence of information |
| Grouping information by dimension |
| Evaluate each group |
| **GROUPING PERFORMANCE:** Simple average of group evaluations |

○ In six online experiments with 693 participants, we demonstrated that people use the grouping method in delivery services and stock investment scenarios.

○ Furthermore, people use the grouping method even in cases where it results in suboptimal decisions (Exp 5,6).

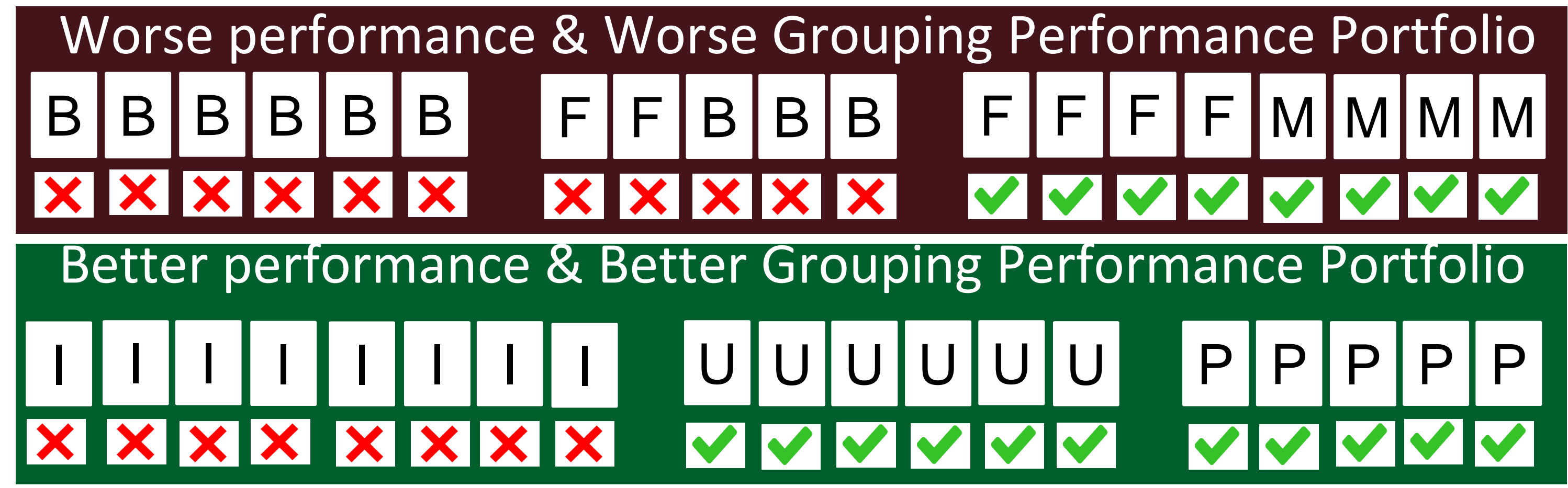## Experiments 5-6: Stock Investment

Participants saw stocks from two portfolios both comprised of **equal** stock shares. On each screen, they were shown if a stock's value went up/down, and the stock's industry.
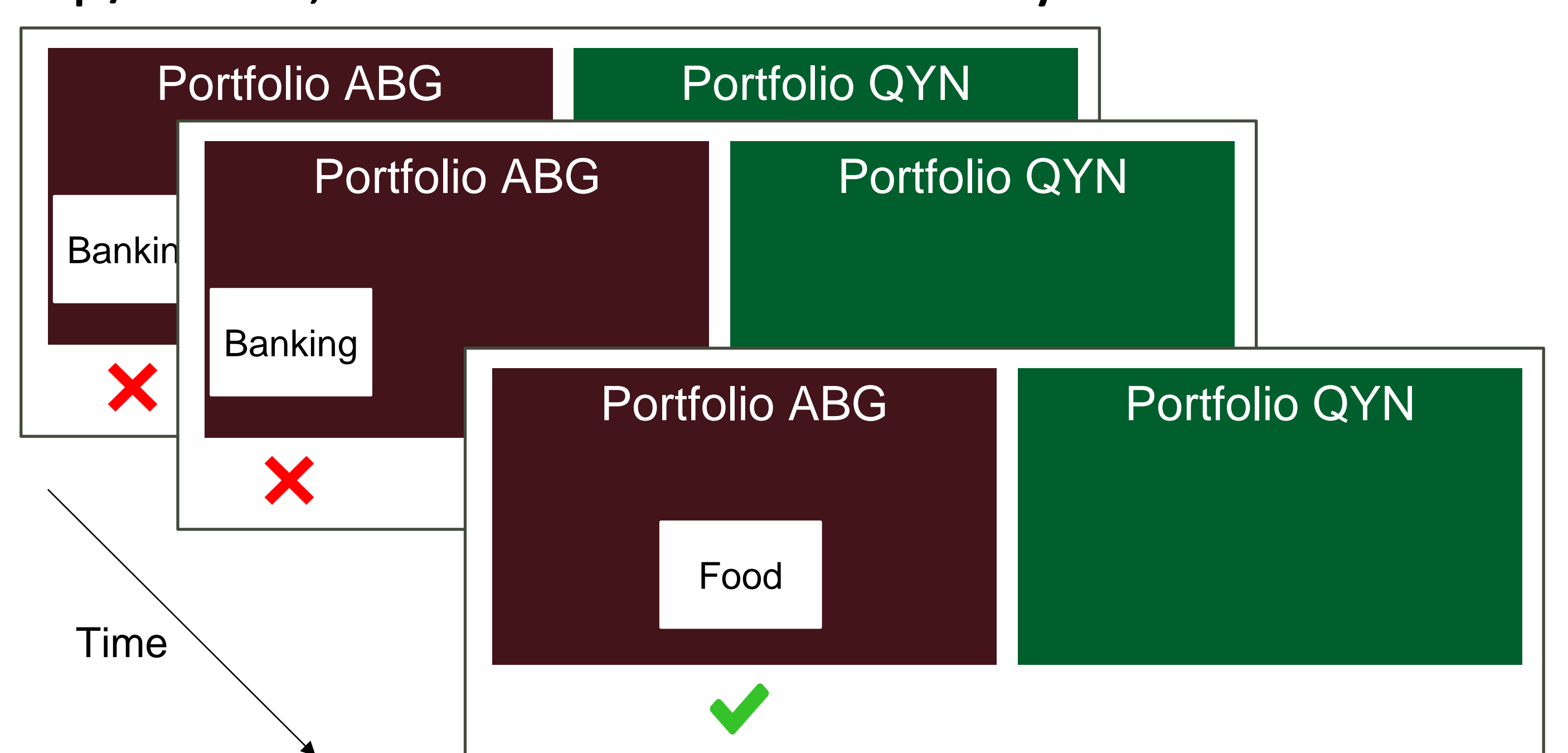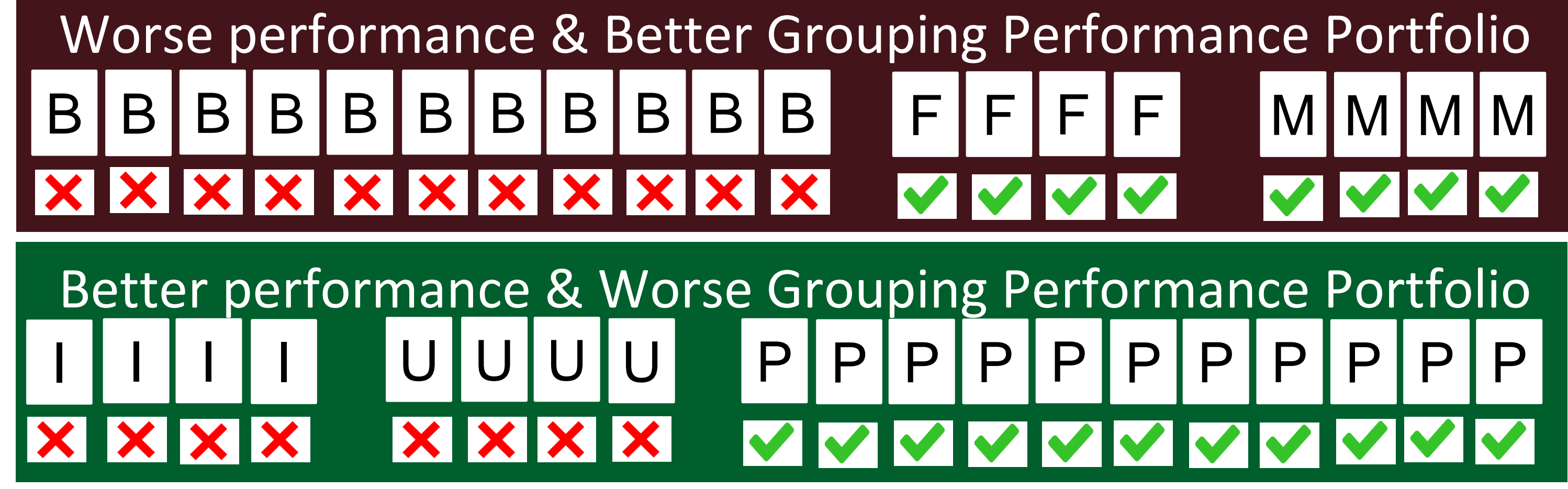

Stimuli: Different Performance

One portfolio had more rising stocks --- it performed better. There were two within participant conditions that differed on whether a portfolio's **Grouping Performance** was consistent with its actual (objective) performance.

Grouping Congruent Condition:

Worse performance & Worse Grouping Performance Portfolio

Better performance & Better Grouping Performance Portfolio

Grouping Incongruent Condition:

Worse performance & Better Grouping Performance Portfolio

Better performance & Worse Grouping Performance Portfolio

Sample and Measures

Participants were asked to choose the portfolio that performed better. In Exp 5 (N=168) stocks were ordered by industry and in Exp 6 (N=168) presented randomly.

Results

Grouping performance affected choices: Participants were likelier to choose the worse portfolio in the Grouping Incongruent Condition (Exp 5:b=2.44 ,p=2e-10; Exp 6: b=3.28 ,p=2e-14). There was no effect of the order stocks were presented on the tendency to group.

Which portfolio performed better?