

Worksheet 1 - helpers and hindlers

Wednesday, January 21, 2026

Math 58B - Jo Hardin

Name: _____

Names of people you worked with: _____

Is your schedule set? Are you happy with your classes this spring?

Task: In the Helper vs Hinderer experiment (see class notes, example from Chance and Rossman, original study Hamlin, Wynn, and Bloom, *Nature* 2007), 14 of the 16 babies chose the helper shaper over the hinderer shape. As a group, come up with at least 3 different reasons why the large majority (87.5%) of the babies who took part in the study chose the helper. Try to make your three reasons fundamentally different.

Solution:

What are some reasons why 14 of 16 babies would choose the helper? The types of reasons fall into one of three categories. We try to create an experiment that rules out all the possible reasons in category 2. We use statistics to rule out category 3. If we can rule out both category 2 and category 3, we believe category 1, which is the reason we did the study in the first place.

1. **Research Q** The possible reasons all relate to the research hypothesis at hand (babies are more prone to choose the helper shape).
 - Culture of helping
 - Evolution
 - Aversion to hinderer
 - Movies
2. **Design** The possible reasons are related to the experimental design. We work hard to have good experimental design that will rule out such factors.
 - Preference for up
 - like 3-sided objects
 - preference for particular shapes
 - unconscious signaling from researcher or care giver
 - preference for particular colors
3. **Chance** Fourteen of the babies chose the helper due only to random chance.
 - Coincidence