Nomological Machines Exp. 1

General Instruction

Dear participant,

We are grateful for your participation in this online study.

For this experiment to work, **you will need to have the Adobe Flash Player installed and activated**. Please make sure that this is the case; if not, you will not be able to complete the experiment.

In the following experiment you will encounter a new kind of machine. Your task will be to explore what happens when you put different objects into this machine. Afterwards, we will ask you to make predictions what will happen if you put new objects into the machine.

The whole survey will take about four minutes. To ensure that you pay enough attention to the task, we inserted an attention check question in the course of the survey. If you fail to answer this simple question correctly, we cannot use your data and have to exclude you from the study. In this case, you will not receive a reward for your participation. So please make sure you pay enough attention to the task in order to avoid disappointment.

We guarantee that the collected data will be made anonymous and only be used in the study at hand.

Please enter your Prolific ID into the field below before proceeding to the experiment by clicking "Continue".

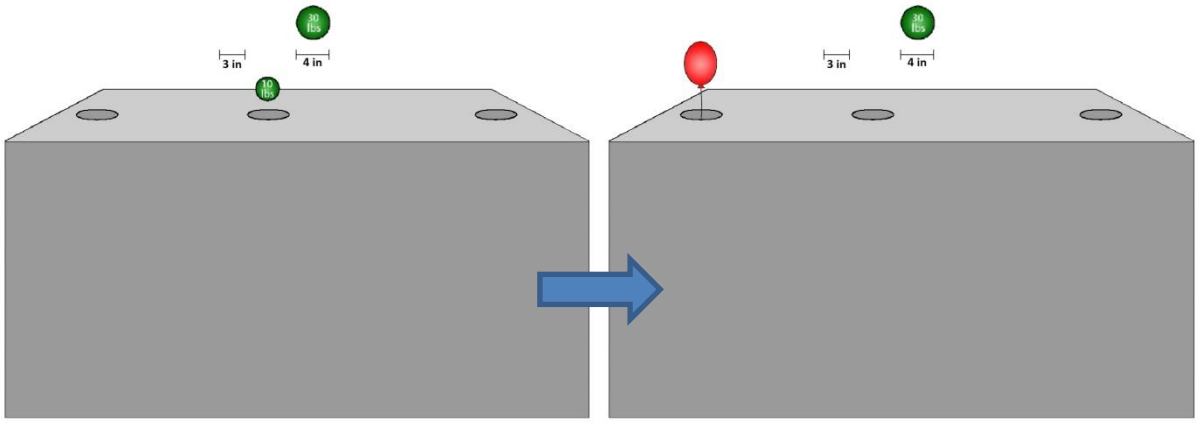
Learning Phase

Imagine you encounter the machine shown below. It has three holes at the top. Your task is to find out what happens when you throw different objects into the center hole. One object is small (diameter of 3 in) and light (weight of 10 lbs). The other object is large (diameter of 4 in) and heavy (weight of 30 lbs).

Please click on one of the objects in order to throw it into the center hole of the machine and watch closely what happens. You are only allowed to put one object at a time into the machine. After the machine has returned to its original state, you can repeat your experiment until you are confident that you understood what happens when you throw the different objects into the machine.

Control

Nothing is known about the construction of the machine's interior. Nonetheless, please try to imagine how the machine might work while you make your observations.

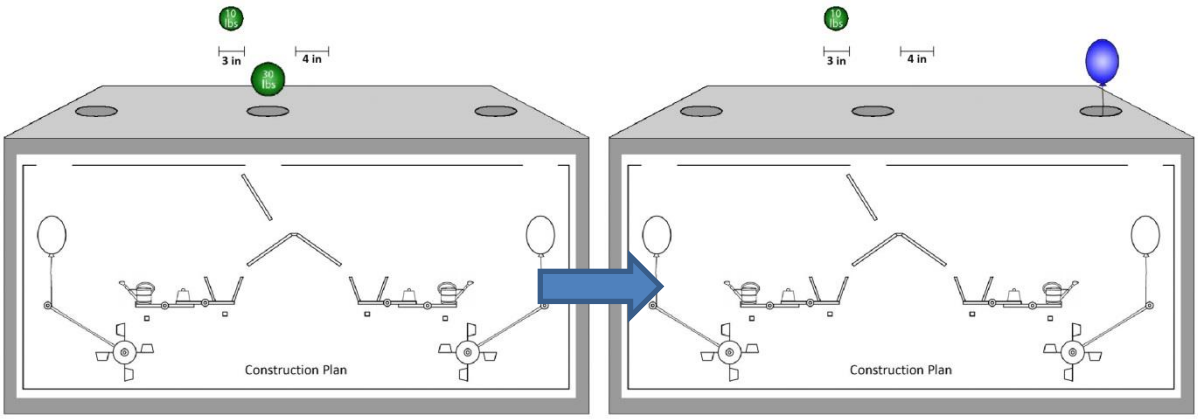


Flash clip of control machine (screenshots)

Please do not press "Continue" before you have investigated the issue thoroughly. You will not be permitted to return to this page.

Size / Weight

On the front side of the machine, you see a static construction plan of the machine's interior. Please try to imagine how the machine might work while you make your observations.



Flash clip of size-/weight-sensitive machine (screenshots from size condition)

Please do not press "Continue" before you have investigated the issue thoroughly. You will not be permitted to return to this page.

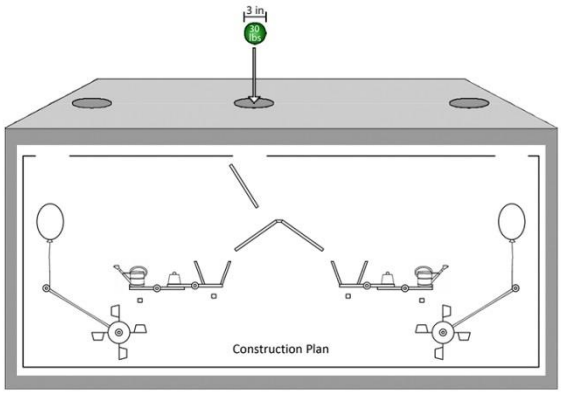
Causal Rating Phase

Thank you for exploring the machine. Please let us know what you have observed.

- Throwing the small (3 in) and light (10 lbs) object into the machine…
    - …caused a red balloon to rise from the left hole.
    - …caused a blue balloon to rise from the right hole.
- Throwing the large (4 in) and heavy (30 lbs) object into the machine…
    - …caused a red balloon to rise from the left hole.
    - …caused a blue balloon to rise from the right hole.

Prediction Phase (random order of small/heavy vs. large/light test trials)

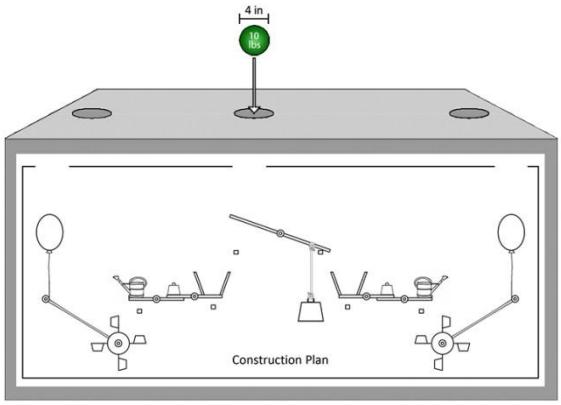
Small/heavy



Example illustration from size condition

- Imagine you would throw a small (3 in) and heavy (30 lbs) object into the center hole of the machine. What do you expect to happen?
    - A red balloon will rise from the left hole.
    - A blue balloon will rise from the right hole.
- How confident are you in this prediction? (0 [not at all confident] to 10 [very confident])

Large/light



Example illustration from weight condition

- Imagine you would throw a large (4 in) and light (10 lbs) object into the center hole of the machine. What do you expect to happen?
    - A red balloon will rise from the left hole.
    - A blue balloon will rise from the right hole.
- How confident are you in this prediction? (0 [not at all confident] to 10 [very confident])

Debriefing

You did it, thank you very much for participating. In this study, we try to understand how people reason about complex causal relationships. If you have any further questions or comments, feel free to contact us:

jnagel1@uni-goettingen.de. To leave the experiment, you can just close the browser window. Thanks again and good bye!