The Use of the Term "People" in Research –

a Commentary on "Most People are not WEIRD" by Joseph Henrich *et al.*, Nature (2010)

Prof. Joseph Henrich[1] is an anthropologist at the Department of Human Evolutionary Biology at Harvard University, Cambridge, USA. His focus is on evolutionary approaches to psychology, decision-making and culture. Together with his colleagues Stephen J. Heine and Ara Norenzayan at the University of British Columbia, Vancouver, CA, he was the first to point out that, in economics, psychology and cognitive science, conclusions are generally drawn from study participants with the same background: Western, Educated, Industrialized, Rich and Democratic (WEIRD). In addition, primarily students form the majority of test subjects. Still, researchers – often unintentionally – claim that their findings apply to everybody.

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Let's do a thought experiment. You are a researcher and you are particularly interested in human social behavior. You design an experiment, in which your human participants are solving a task, let's say 50 trials of the shell game. In addition, you introduce a reward component and they win money upon correct answers. After the third correct hit, you tell half your participants, that you only have a budget of 100 € per day to spend on your subjects. Therefore, the more money each person wins, the less you have left for the subsequent experiment. The other half of your experimental group is not told that you have budget restrictions, because you would like to see how the general performance in that task is. And, frankly, you have more money to give away and your initial enquiry is to find out whether persons in the first experimental group behave any differently once they are told that the game they play might leave other persons at a disadvantage.

After testing 100 persons, you find that both experimental groups show equal performance. You write a paper about your findings and title it "Humans do not renounce reward in a gambling task for the good of other players". Your statistics are flawless, your group size adequate, and your experimental design state of the art. Nevertheless, there is one flaw about it that cannot be canceled out by simple math. Ok, the group size was age- and gender-matched; but who exactly are your test subjects? You managed to recruit mostly people from the moderate radius of the city you conduct your research in. It is hard to convince persons who live in distinct cities to come to your site for a test that lasts approximately 30 mins and that remunerates subjects with at most 100 €. Furthermore, there were a lot of students who participated, because they were actively seeking for these kinds of tests to earn a few euros on the side. What they for sure all have in common, is that they are humans (yes, it's a thought experiment but we're not in Metropolis or in San Fernando Valley, so neither Superman nor Alf participated).

So, you assume that your findings apply to humans, because that seems like the best and shortest description of your entire subject pool. However, those people are only a minute fraction of more than 7 billion humans living on Earth; humans living on different continents, several time zones, having different cultures and a different history. Of course, you might as well name your paper "People living in Gotham city do not renounce reward in a gambling task for the good of other players", however this could falsely indicate that your results hold true only for this specific city. You are pretty sure that you could potentially reproduce the same findings in most of the other cities of your country. Therefore, the exact spatial or temporal location of your subject pool might not be the key criterion for obtaining specifically these results. It is the culture and history they share that makes them behave the way they do.

The generalization of the term "humans" in research was bothering the team of Joseph Henrich, Stephen J. Heine and Ara Norenzayan at the University of British Columbia already in 2010. In their Nature opinion article, they point out that "Most people are not WEIRD".[1] This slightly ambiguous abbreviation comprises Western, Educated, Industrialized, Rich, and Democratic and basically describes Western Societies. The term was chosen because it "creates a mirror in which we see ourselves in reflection", says Henrich. The team firstly created awareness of the fact, that scientists use the words "humans" or "people" to describe only a small percentage of persons that share the same cultural and historical background, namely the North American and European one.[2] However, the use of these words suggests that their findings apply to anybody, which rarely holds true when studying human behavior. If we tried to reproduce our thought experiment in a non-WEIRD environment, it is likely that the subjects would react differently. To put it in a more neuroscientific context: behavior is complex and individual, that's why we distinguish it from reflexes, which are simple and common within one species.[3] Moreover, the team around Henrich noted that a big portion of data was acquired by studying behavior of students, just like the data

of our thought experiment. As mentioned above, students often actively seek to participate at experimental studies and are more likely to hear about such studies because they spend most of their time at the university, where most of these studies are conducted.
Since the publication on this issue, six years have passed. Joseph Henrich, who is now at the Department of Human Evolutionary Biology in Harvard, reports that it had an impact on the use of the terms “people” and “humans” in research: “There have been changes, but only slowly. Economics has responded most efficiently. Parts of psychology have responded, but other parts remain unmoved. Many psychologists don’t really know how to respond.”. JUnQ furthermore asked Henrich by which means researchers could include “non-WEIRD” study participants into their experiments nowadays. Henrich points out that they have already performed several large-scale comparative projects using teams of researchers to collect ethnographic and experimental data in diverse societies. These studies provide a model that other scientists could build upon.
To sum up, the findings that we conclude from our data do not only depend on good experimental design and the use of proper statistics, but also on the perspective out of which we look at them. Sometimes, we need to take a step backwards and reconsider if not only the numbers are normally distributed but also the sample pool, out of which we caught the fish.

—Theresa Weidner

References

[1] J. Henrich, S. J. Heine, A. Norenzayan, *Nature* **2010**, *466*, 29.
[2] J. Henrich, S. J. Heine, A. Norenzayan, *Behav. Brain Sci.* **2010**, *33*, 61–83.
[3] I. P. Pavlov, Lecture on conditioned reflexes **1941**, *2*, 199 pp.