

Making a low-budget eye tracker

Djordje Djurica¹ & Sebastian Schnieder²

¹*Faculty of Economics, University of Novi Sad;* ²*Bergische Universitat Wuppertal*
djordjedjurica@gmail.com

In our research, we attempted to make a low-budget eyetracking device. The first step in building an eyetracker was to construct a prototype. Pair of safety glasses were repurposed into a headgear. The lenses from the safety glasses were removed. Also, we used two cameras to build an eyetracking device – one eye camera, which was equipped with six LED diodes, later replaced with two IR diodes; and one scene camera. The important thing was to adjust our IR diodes to the proper voltage, which we managed to do by using 2 resistors and making a short circuit. In order to get less illumination and protect the pupils from the infrared light, we assembled eye camera with a homemade IR filter. After making a prototype, we tested it in ExpertEyes software and calculated the accuracy of eye tracker. The results showed the accuracy of this device is 1.5 degrees. After testing prototype, we decided to print out the headgear for device using a 3D printer. First, we modeled the frame casings for cameras in Catia and then printed it out with a monochromatic 3D printer. Later, we used eyetracker in a research about forming patterns in biological motion perception.

Stereotype Effects in Cross-cultural Cooperation: A multi-national investigation

Angela Dorrough & Andreas Glöckner

University Göttingen, Max Planck Institute for Research on Collective Goods
angela.dorrough@psych.uni-goettingen.de

According to theories of social interactions, the tendency to cooperate is dependent on beliefs about the opponent's cooperation behavior that are based on naïve theories of how individuals and specific groups operate. In three comprehensive studies involving 2368 participants from ten different countries we show that (a) people have shared beliefs (stereotypes) regarding the cooperation behavior of people from various cultures, (b) these stereotypes are shared by persons from different countries, and (c) these stereotypes influence persons' tendency to cooperate in cross-cultural interactions although they do not fully reflect reality. A first study involving participants from the US shows that information concerning the opponent's country of origin systematically influences persons' beliefs and tendency to cooperate in a hypothetical one-shot Prisoner's Dilemma Game. In a second, incentivized study we show that stereotypes or naïve theories concerning the cooperativeness of different countries are shared across nations. Finally, in a third study we demonstrate the stability of our findings using population-representative samples and show that stereotypes do only partially reflect average cooperativeness of nations.