

Widacki Jan, *Dean of the Law
School at Andrzej Frycz
Modrzewski Krakow University,
Poland, Professor LLD*

GALVANIC SKIN RESPONSE (GSR) AND ITS DISCOVERERS (ABSTRACT)

Galvanic Skin Response (GSR) is among the best and most evident physiological changes used for instrumental lie detection. These are changes in the GSR that are registered (together with the respiratory and blood pressure-pulse deception responses) by any contemporary polygraph.

Plenty of experimental studies connected to instrumental lie detection only used a psychogalvanometer, which only revealed or registered changes in the GSR. It is worth recalling that in Lykken's first experiment from 1959, which gave rise to the Guilty Knowledge Test (GKT) technique, the experimenter used a psychogalvanometer only, not a polygraph.

In 1878, Vivourox observed an increase in the electrical resistance of the skin on the anaesthetised side of hysteric patients. Around a decade later, in 1888, Fere noticed that changes in electric conductivity of the skin are a reaction to a range of stimuli, also psychological, affecting the patient. His measurements of changes in skin conductivity made use of an external source of electricity.

In 1890, Tarchanoff stated that nearly any pair of points on the human skin connected with a psychogalvanometer (in an absence of

an external source of electricity) revealed differences in electric potential changing under the influence of stimuli.

There is the same physiological mechanism underlying the observations of Fere and Tarchanoff, the two scientists who were co-discoverers of the skin galvanic response.

Unlike Fere's, Tarchanoff's biography is unfortunately less known, as it is not only exceedingly interesting but it also connects both the science and the nations of Central and Eastern Europe symbolically.

A Georgian by birth, Tarchanoff was a Russian scientist, and a teacher and friend of Napoleon Cybulski, the man who created the Polish school of physiology. Assorted facts about the great scientist have remained virtually unknown: not only was he connected to Polish science but also spent the last three years of life in Poland, and died in Poland, near Krakow, rather than in Petersburg, as suggested by *The Great Soviet Encyclopaedia*.

Марчак Віталій Ярославович,
професор кафедри кримінального права
та криміналістики юридичного
факультету Чернівецького національного
університету імені Юрія Федьковича,
доктор юридичних наук, професор;
Шувальська Люсьєна Романівна, викладач
юридичного факультету Чернівецького
національного університету імені Юрія
Федьковича, кандидат юридичних наук

ДИСКУСІЙНІ ПРОБЛЕМИ ДОСЛІДЖЕННЯ ТА ОЦІНКИ ВИСНОВКУ КОМПЛЕКСНОЇ СУДОВОЇ ПСИХОЛОГО-ПСИХОФІЗІОЛОГІЧНОЇ ЕКСПЕРТИЗИ СУДОМ ПРИСЯЖНИХ

Для надання інформації, отриманої за допомогою опитування підозрюваного з використанням поліграфа, значення доказу у кримінальному провадженні органи досудового розслідування повинні призначити відповідну експертизу, оскільки висновок експерта є процесуальним джерелом доказів [1, ст. 84].