

To some extent, we all know from our own experience how the spreading of semantic associations works. When we hear a conversation about a holiday, it automatically activates a sequence of associations – some are close (e.g. sun, beach), others are remote (e.g. vaccines to tropical diseases, holiday request). The capacity to generate remote semantic associations has intrigued researchers of creativity for years. Sarnoff Mednick postulated that people who are more creative are better at generating unconventional, remote associations, while low creative individuals generate rather stereotyped, unoriginal associations. He developed a task consisting of finding one word that is somehow related to each of the three given words. For example, words “hotel”, “captain”, “sky” can be combined with one word “star”. The Remote Associates Test is now one of the most popular methods to measure creativity. It is applied to study different groups, looking for relationships between creativity and personality traits, cognitive styles, abilities.

A great body of research tackled the issue of the relationship between creativity and schizotypy. According to Gordon Claridge schizotypy is a personality trait which to some extent is present in every individual. Highly schizotypal individuals share some characteristics with people diagnosed with schizophrenia (e.g. magical thinking, unusual experience, hallucinations). Studies suggest that healthy people who have schizophrenia-like traits are more creative – they have a tendency to combine remote associations resulting in original, unconventional solutions. However, no study applied the Remote Association Task in the schizophrenia group, while a lot of reports suggested that there are links between psychopathology and creativity. Additionally, cognitive underlyings of the capacity to generate remote associations remain elusive.

The proposed project aims to study schizophrenia patients and the corresponding healthy control group varying in the level of schizotypy. The Remote Associates Task and the battery of cognitive tasks will be applied. It will allow for a better understanding of distorted semantic associations and their link to creativity. Moreover, procedures including eye-tracking application will be conducted. Eye-tracking allows for the recording of eye movements while a person is solving a task. Consequently, we are able to investigate how schizotypy influences stimuli processing. Existing data suggest that schizotypy is related to over-responsiveness to stimuli that are irrelevant from the task perspective. The application of the eye tracker will provide precise data on the duration of fixation on presented objects, which should contribute significantly to our knowledge on cognitive functioning depending on the schizotypy level.