



# SPACE

## awareness

## WHO IS A SPACE PSYCHOLOGIST?

**Field** Psychology, medical sciences

**Type** Research

**Level of study** PhD





ISS016E008792

## What is the field about?

Psychology is concerned with understanding the mental processes that drive human nature, and how human beings relate with each other and their environment. The field of psychology is interested in understanding how psychological features such as memory, emotions, and motivation are built, used, and updated over time. Furthermore, psychology tries to understand how our brain processes social (e.g., gender; ethnicity) and sensory (e.g., vision; smell) information that is used to help humans making decisions and interacting with their environment (e.g., other people).

To live in space can sound really *cool*, but astronauts (and future space settlers) often experience a series of stressors (e.g., conflict, isolation) that might have an impact on how individuals think and feel while in space. This motivates psychologists to learn about human mental processes in space related activities, and understand how living in space, as an example, influences astronauts' mood and wellbeing and their capacity to perform. Furthermore, psychologists explore how space crews on board of a space ship or the International Space Station are capable of maintain successful collaboration with mission control personnel over time.

## What would I do every day?

Psychologists can be involved in a variety of tasks that are space related, from conducting psychological examination on space personnel, to the development and implementation of training programs aimed at improving astronauts' teamwork competences (e.g., leadership, communication, conflict management) that are fundamental to ensure mission success.

Psychologists can also work as researchers and try to understand if (and how does) living in space has any influence in our mental processes, hence changing the way we think and feel about ourselves and others. Finally, psychologists can also work on the development of new monitoring techniques that will be necessary for long space traveling and ongoing observation of crew's psychological functioning. One can be asked to find new ways of collecting and analysing psychological data, replacing questionnaire and interview data with physiological data (e.g., heart bit; hormone production levels).

Whereas most of the work is often done indoors, there are outdoor facilities located in remote corners of the Earth (e.g., Antarctica) where astronauts and volunteers spend weeks to simulate life in a space colony. Psychologists can travel to these locations to conduct their experiments and gather psychological and behavioral data.

## How much and what do I need to study?

To be a psychologist is to be someone that is trained to understand how human beings think, feel, and behave. Whereas a degree in General Psychology can give you a general idea of all those things, being a psychologist is far beyond that. Most psychologists are experts in one research domain such as organizational psychology, or social psychology. Psychologists working in space related activities often have a PhD in Psychology, and are multidisciplinary in the sense that they are knowledgeable in other scientific areas informing about human nature such as history, biology, or neuroscience.

## Where can I work?

Psychologists are quite flexible individuals, and are capable of working in a variety of work contexts. Depending on what one is more motivated to do as a psychologist (e.g., scientist; practitioner) it is possible to work at universities, companies, and institutions. Most Space agencies have connections with psychologists that have their own research labs at universities, and develop space related research. Companies and institutions can also hire psychologists to have their input in the development of human resource management practices, and technological solutions aimed at improving human performance and collaboration in space.

## This is the job for me, if...

...you are curious about the human mind, have an analytical and critical thinking, and if you are willing to step outside your comfort zone.

### **A space psychologist should be:**

**Good in communication:** being capable of communicating ideas in a clear and precise way, both written and orally, is fundamental.

**A good team player:** Enjoying working in a team is important because that is how you will gain a deeper understanding of how the mind works and also because it does not matter how smart you are, you will always need good team members around you at some point.

**Highly motivated** to do the work. Human beings can be very hard to relate with from time to time, hence being crucial that a psychologist keeps his/her motivation to work. Furthermore, as a psychologist one should also collect data, analyze it, and publish the results. This is a long and sometimes frustrating process, which needs motivated individuals to be completed successfully.

**Emphatic:** If you are a psychologist, people will always look at you at some point as someone that can listen to them (even if you're training in not clinical psychology, and you are actually a mathematical psychologist). Empathy is fundamental to help us relate with others, and really understand what they think and feel.

**The article is based on information kindly provided by** *Dr. Pedro Marques Quinteiro, Postdoctoral fellow at William James Center for Research (ISPA-IU)*

**Image:** Behavioral Health

**Credit:** NASA



This resource was selected and revised by Space Awareness. Space Awareness is funded by the European Commission's Horizon 2020 Programme under grant agreement n° 638653