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THE FIVE SENSES STANDING THE TEST OF LONG-DURATION HUMAN SPACEFLIGHTS: AN
ANTHROPOLOGICAL APPROACH**Abstract**

During their flights, astronauts are teared among philosophical benefits of being in space and the psychosocial grief of being far from the Earth. Just like taste is a concern in the preparation of astronauts' meals aboard the ISS, and like sight is questioned by psychosociologists from all over the world looking for the eventual impact of losing a visual on the Earth in manned space flights to Mars, we have to think about the other senses as well.

Smell: fresh cut grass, blossoms, a forest after the rain. From Samantha Cristoforetti smelling a flower in the Kazakh steppes as her first act after landing to recurrent questions asked to astronauts on the smell inside the ISS, scents and odors are hinges of our daily social life.

Hearing: birds on benches in springtime, children laughing while playing in the garden, traffic jams calling the effervescency of the urban life to mind. Nevertheless, hearing is also about the deafening throbbing of a Soyuz launch or multi-languages conversations in the corridor of an ESA center. While many astronauts already listen to sounds of the terrestrial nature while they are on board, developing a sound-based sensibility to the astronautic life on the ground helps to understand the cultural and social meanings of spaceflights.

Touch: feeling the wind through hair and the warm of the sun on the face, reminding the life around us and beyond our own individuality. Touch is about the perception of personal and collective space as well: the body is an integrated element in an ecological structure, which takes into account other human beings as well as specific materials (iron, plastic, metals, and so on) and other forms of life (such as plants).

Using sounds recorded in ESA and Roscosmos centers, extracts of interviews with astronauts and cosmonauts, and introducing "counter-measures" for some of the above-sited senses in long-duration space flights, this interactive presentation will propose a journey through the anthropological and social aspects of the senses, the modifications, limitations and interrogations that they imply for astronauts in flight. More than a support to astronauts' mentality during their flights, the perspective of long-duration space flights and eventual permanent colonies on celestial bodies or other planets in our solar-system force us to rethink the meanings of our senses in our culture and the way they influence how we structure societies by defining how we interact with the world that surrounds us.