

What is it like to be in early sensory life?

An episode with Anna Ciaunica

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Abstract

In this episode, Anna Ciaunica reviews the recent progress on the scientific study of conscious experiences in early sensory life.

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The video and audio version of this episode are available on <https://aliusresearch.org/bulletin06-ciaunica-podcast.html>

Consciousness is a mystery that many philosophers and scientists have attempted to tackle throughout the centuries. But what if instead of asking what consciousness *is*, one asks how conscious experiences *emerge, develop* and *unfold* in our life journey? Let's go back to 'square one' and look at how experiences arise in early human life. What is it like to experience and perceive the world at the dawn of our lives? One basic yet overlooked aspect of current discussions in both philosophy and cognitive neuroscience is that experiences first develop *within* another human body. The most basic perceptions and actions emerge already *in utero*. Crucially, while not all humans will have the experience of being pregnant or carrying a baby, the experience of *perceiving and growing within another person's body* is universal.

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Why is this important? How can this observation help us to understand conscious experiences? When I look outside my window, as an adult, I can see trees, hear the noise of the cars, smell the rain. All these perceptions form the content of my conscious experiences. But in the womb, starting from 22 weeks onwards, the world looks different. How? First, my entire body is immersed in a liquid environment, which makes my movements literally fluid. My eyes are mostly closed, and even if the light comes in through my closed eyelids, my visual perception is limited. The proximal senses, such as touch and smell, are taking the lead in exploring the world. I can hear things, but most importantly, I can hear someone's heart beating all the time, continuously, rhythmically. The early sensory world of a human is not isolated nor solitary. It is a rich multisensory experiential orchestra with several players, involving others' embodied presence, experiences and moving bodies. Perceiving the world is not just about me, one individual looking at the world through a window. At the beginning of our lives, perceiving is about co-perceiving a shared world. We literally share time and space and our bodies with another human being.

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This observation is in line with recent work in mind and brain research stipulating that our perceptions, cognitions and actions are fundamentally geared towards biological self-preservation, *i.e.*, the need to maintain and regulate the psychological and physiological needs for the integrity of the living organism (the human body or individual) within a wider and highly volatile social and physical environment (Varela et al. 1991). This is something we share with all living organisms. In order to fulfil the fundamental conditions for self-preservation, humans need to constantly move, act and interact with the physical and social environment. Now, one way the human organism may complete this task is described by the influential 'Predictive Processing' framework (Friston 2010; Clark 2013; Hohwy 2013). The idea here is that we do not perceive the world as it is.

Rather we perceive it as we ‘expect’ or ‘predict’ it will be, based on prior perceptions and experiences.

If this is so, then in order to understand the nature of conscious experience in the here and now of adult life, it is essential to look at how these experiences get off the ground from the outset, in early life (Ciaunica et al. 2021, 2022). This is because adult conscious experiences cannot be addressed in isolation of prior (early life) perceptual experiences. Regardless of when various forms of consciousness first emerge, there is an experiential continuum between early and later experiences. The key idea here is that by endorsing a bottom-up, sensory and developmental perspective in exploring how conscious experiences dynamically arise and develop in concert with the developing organism, we may gain important insights into what consciousness ‘is’ and its biological structure. Unveiling the mystery of consciousness perhaps then will depend less on what makes human experiences uniquely special, but rather on what connects them with life under all its forms.

“ Adult conscious experiences cannot be addressed in isolation of prior (early life) perceptual experiences. ”

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