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**The explanatory gaps in naturalism**

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**Abstract**

The so-called explanatory gap between the physical and the mental has prompted still ongoing epistemological and ontological discussions. However, at least two very different mental states are usually conflated in the debate: phenomenal experience –including emotions and feelings–, which reveals an unavoidable subjective character, and mental acts that attain objective truth. One notable exception is Thomas Nagel, who insists with equal emphasis in both the subjective nature of phenomenal experience and the mind's capacity to transcend it and grasp objective, timeless truth. In *Mind and Cosmos* he actually describes four explanatory gaps in traditional naturalism, requiring an expanded set of concepts and ontological principles: 1) from matter to life; 2) from life to sentience; 3) from sentience to cognition; 4) from cognition to value. I will focus on cognition as distinct from sentience, since that gap clarifies the abovementioned distinction and reveals more clearly the need of a richer ontology. Nagel argues also that the appearance of mind and rationality in the universe is not accidental and requires a teleology that is part of the natural order. Nonetheless, a further explanation of truth objectively considered is missing in Nagel's account and therefore of why mind would be so central in a metaphysical consideration of nature. I will also give some reasons why Nagel's rejection of theism and his preference for a naturalistic explanation of the universe rest on some misunderstandings, which, duly answered, may also explain the special place of mind in nature.

## ***Mind up-loading: controversias en torno a la identidad personal***

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De acuerdo con David Chalmers (2014), si se entiende la relación mente-cerebro según la teoría computacional funcionalista, no existirían argumentos apriorísticos para negar la posibilidad de transferir (*upload*) la conciencia humana a un sustrato material alternativo: biológico, artificial o mixto. De este modo, mediante un reemplazo total (instantáneo o progresivo) del cerebro o mediante la construcción de un modelo informático funcionalmente equivalente, podría lograrse extender la expectativa de vida de la conciencia personal.

Esta última hipótesis de una mente humana “descargada” en un computador requiere algunos postulados problemáticos: i) que la causalidad material resulte suficiente para producir verdaderos estados de conciencia, ii) que el cerebro de hecho trabaje como una computadora y iii) que sea posible lograr en un dispositivo no biológico una estructura funcionalmente isomórfica al cerebro humano (Pigliucci 2014). Sin embargo, aun en el caso de que en la transferencia de la mente pudieran salvarse estas tres dificultades, quedaría todavía por resolverse el problema metafísico de la conservación de la identidad personal. A mi juicio, hay razones para sostener que incluso una emulación psicológicamente indiscernible en primera persona, basada en una transferencia completa de la memoria, no respondería satisfactoriamente a dicho problema. La identidad compromete la continuidad de la sustancia, del sujeto. Y, si bien la memoria es esencial en su autopercepción, no es condición necesaria ni suficiente. Esto último se evidencia con claridad en patologías mentales como las amnesias o las paramnesias en las que la disrupción o alteración de la memoria no constituyen una verdadera alteración de la identidad personal.

## **The self, the mind and the brain**

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The ‘self’ is the subject of my experience. The self is not a ‘thing’, but it is real and has a praxis (Sanguinetti, 2011). However, does my ‘self’ belong to my mind or to my brain? The goal of this presentation is to discuss how to deal with the different aspects of the self in relation to the mind and the brain.

Current neuroscientific understanding reflects on the ‘self’ as a complex ensemble of cognitive functions, modularly organized and related to specific parts of the brain (Crick and Koch, 2003). It is generally believed that knowledge about this empirical self necessarily derives from a third person perspective, using controlled experiments under laboratory conditions. Further, it has been argued that the existence of a mental entity which we call the ‘self’ is a mere assumption. Selves would not exist and should be replaced by the evaluation of underlying cognitive processes (Metzinger, 2012). These studies have provided rich information about self-related brain functions, as well as their regional distribution in the brain. However, they do not explain the ‘self’, which is a global function.

Neuroscience needs not to be limited by indirect approaches, since ‘selves’ manifest in very different ways across different situations and individuals (Frisch, 2014). Therefore, neuroscientific research cannot not be complete without a first person perspective, taking into account the explicit notion of a situated, reflecting, and interacting individual ‘self’. Changes in our experience correlate with changes in brain activity, generating both first-person data and third-person data about the same entity, the ‘self’. Although one set of data is not reducible to the other set (Mckay, 1978), it can be hypothesized that, when both the first and the third person perspectives are taken into account, even within the limitations of our present knowledge, there is no need to invoke the superiority of the mind or the brain in the determination of ‘self’ functions.