Free will exists, in a clustered-minds block multiverse

A thought experiment extending spacetime

Prof. Dr. Christian D. Schade

Humboldt-Universität zu Berlin

cds@hu-berlin.de

Extended abstract

If one assumes the joint validity of two theories: (1) spacetime or block universe (Minkowski 1908; Petkov 2005) and (2) quantum multiverse in the form of the many-minds interpretation or more precisely, the *clustered-minds multiverse* (for many worlds: Everett 1957; for many minds: Zeh 1970, 2013; Albert and Loewer 1988; Lockwood 1996; for the clustered-minds multiverse (CMM): Schade 2018), what would happen to free will? Whereas formally marrying spacetime physics and multiverse quantum mechanics might be considered difficult or problematic, one could *explore* in a thought experiment the *consequences* of assuming that spacetime physics and the quantum multiverse are both appropriate descriptions of the physical world. One would then get to a fictional *clustered-minds block multiverse* (CMBM), and one could analyze whether an actual free will could exist in CMBM. That is all dealt with in the presentation.

For this purpose, the presentation must briefly touch upon selected aspects of the two theories underlying the analysis: spacetime and CMM, step by step, and will present the

feasible 'game plane,' the entire scope of experiences we could make as humans, resulting from the joint application of those two theories, the CMBM. Specifically, all feasible spacetimes coexist within this framework, and, under the assumption of *weak psychophysical parallelism*, individuals are able to put larger emphasis upon the experiences they are willing to make, less emphasis on the others, albeit under restrictions (see below). The concept of putting, according to preferences, more or less emphasis or attention (i.e., within consciousness) onto different realities is called *vectorial choice* and will formally be introduced. Vectorial choices form the basis of an actual free will in the sense of *being able to choose otherwise*; this type of free will exists within the CMBM framework. Based on the CMM, it will also be analyzed which restrictions to free will might apply within the CMBM framework, most importantly, avoiding mindless-hulk situations (Barrett 1999).

The paper concludes with a discussion as to what consequences two different, possible *design principles* of the multiverse – and thus of the clustered-minds block multiverse – will have on the resulting (experienced) realities. This, in turn, requires dealing with different ways as to how fractions of realities or probabilities are implemented and then dealt with within consciousness. I will also briefly touch upon the question whether we are rather looking at an idealist or a materialist theory, here.