

Chapter 6

The Hypercomputational Case for Substance Dualism

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ABSTRACT

I'm a dualist; in fact, a substance dualist. Why? Myriad arguments compel me to believe as I do, some going back to Descartes. But some sound arguments for substance dualism are recent; and one of these, a new argument so far as I know, is given herein: one that exploits both the contemporary computational scene, and a long-established continuum of increasingly powerful computation, ranging from varieties "beneath" Turing machines to varieties well beyond them. This argument shows that the hypercomputational nature of human cognition implies that Descartes was right all along. Encapsulated, the implication runs as follows: If human persons are physical, then they are their brains (plus, perhaps, other central-nervous-system machinery; denote the composite object by 'brains⁺'). But brains⁺, as most in AI and related fields correctly maintain, are information processors no more powerful than Turing machines. Since human persons hypercompute (i.e., they process information in ways beyond the reach of Turing machines), it follows that they aren't physical, (i.e., that substance dualism holds). Needless to say, objections to this argument are considered and rebutted.

INTRODUCTION

I'm a dualist; in fact, a *substance* dualist. As you probably know, this places me within a rather small minority, at least among academics, and certainly among professional philosophers.¹ There are of course a number of *property* dualists about

(e.g. Jjacquette 1994, Clarmers 1996),² but those of my ilk are rather hard to find. Why then do I believe what I believe? Well, myriad arguments compel me to believe as I do, some going back to Descartes. (The vast majority of these arguments are elegantly and crisply canvassed by Meixner 2004). But one of these arguments is a new one that I articulate herein; this argument exploits the contemporary computational scene, as well as a

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long-established logico-mathematical continuum of increasingly powerful information processing, ranging from the processing that devices below Turing machines can muster, to what Turing machines can do, to what “hypercomputing” machines can do.

As I soon explain, it’s the hypercomputational nature of human cognition which entails that Descartes (with a Chisholmian slant³ was right all along. Encapsulated, the entailment can be charted as follows: If human persons are physical, then they are their brains (plus, perhaps, other central nervous system machinery; denote the composite object by ‘brains⁺’). But brains⁺, as most in AI and related fields correctly maintain, are information processors no more powerful than Turing machines. Since human persons hypercompute (i.e., they process information in ways beyond the reach of Turing machines), it follows that they aren’t physical, that is, substance dualism holds.

The plan for the paper is as follows. After some remarks on the niceties of defining dualism (§ 2), I give (§ 3) enough background from relative computability theory to understand my argument, and then, in section 4, I give a more explicit version of it that can be effortlessly certified as deductively valid. Each premise in the argument is then separately defended (in some cases against objections), with the majority of attention paid to premise (4), which says that human persons hypercompute. In the penultimate section (5), I consider some additional objections, and emphasize that my objective in the present paper is only to present a *formidable* argument for substance dualism. The fully developed case for substance dualism that the present paper points to includes many previously published arguments for the proposition that human persons hypercompute; and these publications include answers to numerous objections. I thus claim herein not that the main argument expressed in the present paper is conclusive, but rather that, again, it’s quite formidable: put another way, that it provides enough ammunition to make being a substance dualist, in

our day, perfectly rational. That said, the content herein, *plus* supporting argumentation published elsewhere (cited below), *does* by my lights constitute a *conclusive* case for substance dualism. I end the paper with a brief conclusion (§ 6).

WHAT IS SUBSTANCE DUALISM?

In the first chapter of his *The Two Sides of Being*, Meixner (2004) considers a series of propositions that express versions of dualism (and physicalism). What he there calls “mind-body” dualism consists of a set of propositions that are essentially a superset of the one I here take to express substance dualism.⁴ I say ‘essentially’ because while Meixner is content to refer to minds and/or mental entities, following Chisholm (see note 4), I think it imprudently multiplies entities to countenance a framework in which we have in play human bodies, human persons, and human minds. We simply don’t need the third category; it’s dispensable. All substantive natural-language sentences making reference to human minds can be (usually wisely, I submit) translated into sentences making reference to only persons instead. For example, the sentence “Jones has a sharp mind,” can be replaced with “Jones is sharp.” Additional examples are easy enough to come by.⁵ In addition, while I happily concede that substance dualism (or mind-body dualism) is traditionally taken to include (or outright deductively entail) property dualism, since the focus in the present paper is on the class of human persons as objects, rather than on properties, I rest content with identifying substance dualism with one proposition.⁶

So, what is the one proposition that sums things up for me? The doctrine of substance dualism consists for me in this proposition:

D Human persons are not physical.

Of course, since you and I are human persons, it follows immediately from *D* that we aren’t physical.

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