

# An Overview of The Fifth Dimension

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I am not a fan of additional explanations. A story itself should be an explanation; always open in some way and made complete only through interaction in the reader's mind – differently each time, uniquely. Yet in this case, in the case of *The Fifth Dimension*, I feel the need to point out one of the fruits this story yielded me as a result of my searching, discovering, creating and writing it...

I never wanted to be a mathematician or a physicist. And I never became either although I studied those disciplines. I enrolled in those subjects at the age of eighteen under the pressure of several circumstances. First of all: in what was then Czechoslovakia at the time of Normalisation all subjects in the Humanities were completely answerable to the ruling Marxist-Leninist ideology. For admission, for example, to the Faculty of Arts, I didn't have a good enough cadre appraisal – my family wasn't very accommodating of the totalitarian regime, rather the opposite. But on top of that: there was no point in studying what was on offer back then. Natural sciences weren't subject to such strong political pressures.

The other circumstance was that my father was and still is today a world-renowned mathematician. Although I have been writing since my childhood and my first literary attempts go back so far as to the time when I still could not write all the letters of the alphabet, my father never ceased to nurture his dream that I would become his successor. So in a sort of way he took advantage of the political circumstances to get me where he wanted me.

However there was one more circumstance – a purely practical one: a two-year mandatory military service. The former Czechoslovakian Army bordered on a bizarre combination of ideological oppression and utter idiocy. When one student

asked a senior officer during a lecture whether it would be possible to also fire around corners with the aid of ballistic trajectory, he was told that, in principle, it was possible but not a technique that was in use. Anyone who laughed openly at such a statement, however, risked harsh penalties. University graduates didn't have it as tough: they went into service for a year and straight into positions of command. And this was in fact the deciding reason why I had to graduate from a university. My choice became the Faculty of Nuclear Physics and Physical Engineering, whose course content largely matched that of the Faculty of Mathematics and Physics.

As for military service, later I managed to obtain the coveted blue book (a complete exemption from military duty) due to a serious diagnosis from which I fortunately never suffered. But I did complete all of my studies and graduated from the faculty of physics; with excellent results at that. There actually wasn't a mathematical or physical postulate, formula or proof I wouldn't understand as long as I wanted to understand it. I guess I did have some of my father's genes after all. However I wasn't creative in the field of physics: I would never come up with something myself.

I was not born a mathematician or a physicist, I was born a writer. I wrote my first story with the help of a letter drawing stencil when I was a little less than six years old. I wrote at primary school and at high school and I completed my first book (which later came out in print) during my university studies of physics. I'm not a mathematician or a physicist retrained to be a writer, but a writer who made a five-year detour studying maths and physics.

For a long time I considered those five years as the most wasted years of my life. In fact until the moment ten years ago when I came across a Czech translation of Kip Thorne's book *Black Holes and Time Warps*. Thanks to my earlier studies I could read it with understanding. What's more: the reading began to inspire me to write the story of *The Fifth Dimension*.

I'm well aware of the fact that theoretical physics is moved forward by the greatest minds of today: true geniuses who get closer to the nature of being than philosophers do. Their apparatus, and actually a sort of sixth sense for examination of the world, is high mathematics and an aptitude for physics. In contrast, my contact with mathematics was completely severed. After graduation I immediately fled from a field I didn't consider my own. My mind was directed elsewhere: it resides in the world of literary stories and the brain connections for mathematical thinking have been completely silted up. But even now I have a memory inside me that a mathematical formula can convey deep knowledge and bring about an experience not dissimilar to that of reading a poem. Divorced from mathematics I can't follow the course of the latest developments and have to rely on popular science books, such as the one that inspired me to write *The Fifth Dimension*. I'm also aware of the fact that it is difficult to formulate an idea about the nature of the universe that someone else hasn't already formulated.

Yet there is one idea which the story of *The Fifth Dimension* brought to my mind and which I haven't come across anywhere else. And it's the idea about the very nature of our thinking. That our thinking itself shows signs of another dimension. That thinking is not derivable from mere matter, from mere spacetime, from mere neural connections and chemical reactions in our brain. That our thinking is not of material nature and shows signs of rebellion against four-dimensional spacetime. At the same time, it realises itself through the physical body we acquired through evolution and with which it is inextricably linked. That is why it shows those signs only in an incomplete and somewhat distorted manner. (The nineteenth-century Czech poet Jan Neruda writes in his famous poem: 'Up to the heavens we'd fly, but here with the Earth we're bound.')

So which signs do I have in mind? For example our persistent efforts to move in time: back, when we remember or when we explore the past, but also forward when we think about the future or try to directly predict it, or when, in the case of physical

laws, we try to calculate it. Our mind does this despite the fact that matter alone can never be anywhere else but at a given point in spacetime (in the case of quantum physics with some degree of probability, but never in a different time). Further, our persistent effort to move freely in space. Which is what a physicist in particular does when he formulates laws that should apply to the universe as a whole. A physicist speculates about connections that lie far beyond the horizons of a material object. He even speculates about other dimensions (according to the superstring theory there should be a total of ten), although to the matter of his brain they are completely out of bounds. He speculates about what it looks like in a black hole, although the matter of his brain cannot get any information from inside the black hole's interior. The physicist's thinking defies four-dimensional spacetime in every possible way. Our imagination also defies it: we often think about things which we cannot make happen in this universe of ours with its laws. How do such things enter our minds if they are the result of mere material processes? And finally we defy it in our human lives when we think about what a loved one is doing right now on the other side of the world or perhaps just in the next room. What might they be thinking about right now? And sometimes what happens is that we think of the same thing at the same time. Other times we raise our heads toward the sky and think about God. Matter thinking about God?

It is important to note that this differs from the anthropic principle which physicists usually consider. But it has certain consequences for the anthropic principle.

Anthropic principle roughly says that it's no wonder if the universe we observe has precisely the characteristics we observe. If other characteristics were present we most likely wouldn't have come into existence, and therefore couldn't observe any other universe. We see only one possible universe, the one we are able to observe. The anthropic principle is in a kind of way a truth ex post. It reminds me of a situation where we listen to a story of someone who survived the death camps during the Holocaust. If we regard their story only from within the story itself then everything

that took place essentially led to survival. It had to be that individual who survived. This is the analogy with the anthropic principle. At the same time, however, in most cases those who survived are precisely the people who often know best that the fact they survived is not their story. That they are here as random representatives of six million stories. That there could simply have been someone else in their place. At the beginning of all that, their story was not aimed at survival no matter how favourable some of the circumstance for survival might have been. If we look at the Holocaust as a whole, which is something we can do in contrast with looking at the origin and existence of the universe, we are fully able to see that those who survived are here as representatives of six millions stories most of which could have resulted in survival in place of those who survived. The problem is that in the case of our universe we don't have the opportunity to look at its origin and development from the outside and encompass it in its entirety. Then we remain trapped in the anthropic principle.

But if we accept that thinking isn't just the result of material processes issuing from the cells of our body, which are fully trapped in known spacetime, and in so doing accept that our life isn't just a consequence of an evolutionary chain of events, but also a kind of intersection of spirit (or something else) into our spacetime, the situation changes. Then the Holocaust survivor no longer stands in front of us as a consequence of processes governed by natural laws, but as a witness to the whole. If life enters our world from elsewhere, and the very nature of our thinking is the result of some kind of interaction of this intersection with our cells, then man is able to affirm the existence of the universe not because he is the end-product of an evolutionary chain of events, but simply because his life is an intersection or an opening of a different dimension to our universe. Then it is possible to make a much stronger claim that man gives the universe its existence precisely because he observes it. The thing is that this could even be the meaning of his life. And so it is no longer, 'I think, therefore I am,' but 'I think, and therefore the universe that surrounds me is.' This then elevates the role of the Holocaust survivor: he is not a mere consequence of a chain of events but their witness. The sense of his story lies in

giving testimony. If not a single Jew survived the Holocaust and if Nazism (in theory) prevailed to the extent that would eradicate all references to the past of the Jewish people, then the Holocaust would not exist in the future present – it would cease to exist. It will exist only thanks to surviving testimonies. In a similar way to how our universe exists: thanks to the testimony of the living.

To me personally, as someone who constantly and anxiously questions the meaning of our existence, this view of our world and our life at the beginning of which stands the thought of an unmaterial nature satisfies me. It is sufficient. Although thinking often loses its duel with matter: it is powerless; it cannot free itself from its material predicament. But... such is life: it is spirit stuck up to its ears in spacetime.

I don't think I'll return to physics again in my writing. *The Fifth Dimension* seems a sufficient way of capitalising on five lost years of study. But for those of you who at this moment feel a pinch of disappointment, I have good news as well: At the time of writing this afterword, I'm slowly finishing a novel, *The New Planet*. It's likely that it will have around seven hundred pages. It isn't a traditional sci-fi as its title may suggest, but rather an epic story from a distant past, while taking place in a distant future. And here we go again: future, past... The rebellion of thoughts against the laws of spacetime.

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