

Editorial

“I research, therefore I am”

As most will immediately recognize, this headline quotes (or, if you prefer, “misquotes”) the famous 17th century phrase that is fundamental to all philosophy. Of course, René Descartes’ (1596–1650) original statement to fellow French scholars was “Je pense donc je suis” (“I think, therefore I am”), presented in his *Discourse on Method* (1637). He later uses “Cogito ergo sum” in Latin in the *Principles of Philosophy* (1644), Part 1, art. 7, and that – or the shortened “Cogito” – is the catchphrase that captures the argument worldwide. In general, Descartes arrives at a single principle: thought proves existence. His thoughts cannot be separated from him, therefore he exists. “The simple meaning of the phrase is that if one is skeptical of existence, that is, in and of itself, proof that he does exist.”

But, you ask, what has this to do with science? Yesterday, I took a 400-km trip on Germany’s Bundesautobahnen back to my home in the Netherlands. It left me quite exhausted physically as well as mentally, as my thoughts seemed to take their own “400-km-long mind trip”. I used my time on the road to contemplate freedom and what the great old philosophers said about it. Or rather, I choose to concentrate on those I have liked best since I studied them some 30 years ago; and I admit that my heritage influences me to favor the German ones a bit more, as you will see below.

Starting in the economically strong Rhein-Main area (with Frankfurt at its center), I began to think about how free is an Editor-in-Chief in directing his journal towards a scientific profile? Certainly, as one, I can define main themes and directions, introduce key wording, and guide the journal’s flavor. But what can I do if the “world” does not mirror that? For instance, I want to see in the first issues many papers on biotechnology, biomass, and environmental chemistry simply because I consider these to be topics of future relevance. But what if no authors resonate to my vision? If the issues instead are full of, say, high-quality microreactor papers (which is much closer to my personal scientific focus), should I be disappointed, yet resign myself to the fact that I have not struck upon the best way to broaden the scientific dimensions of the journal? If I cannot accept that, then what can realistically be done and what are my limits? Or am I really free and simply need to be determined? The same questions can be posed to me as a researcher: do calls, funding agencies, and major scientific directions determine my focus, or do I freely decide and set my own path?



In truth, I feel I *can* be free and have impact, both in my journal and in my research. In parallel, I also feel that I am empowered, independent, and determined. Consider with me the propositions of my favorite Prussian/German philosopher, Friedrich Nietzsche (1844–1900). He says that the world is semi-deterministic. To Nietzsche everything is an expression of “will to power”, which is also the title of his book of notes published posthumously. To exist is to represent will to power, meaning to cause influence. Therefore, an act changes everything from that moment on. There are but strong and weak wills.

By then, I found myself motoring along the winding, hilly autoroute to Dortmund and its Ruhrgebiet, the other German industrial center. I remembered an earlier German philosopher who influenced Nietzsche: Arthur Schopenhauer (1788–1860). He said much the same as Nietzsche but used the words of his time a generation earlier. The law of causality, or *ex nihilo nihil*, is the basis of all our intellectual capability, he says. When we call X a necessary condition for Y, then Y cannot happen without X. However, by virtue of our thinking, we have insight here and experience some “Physical Freedom”.

Next, having passed the Sauerland rim at pleasant Gummersbach and continuing down into the flat and extended Cologne area, I let my mind further flow. I recalled the very expressive, radical-thinking German philosopher Max Stirner (born Johann Kaspar Schmidt, 1806–1856) and his method of self-liberation which is opposed to faith or belief, as expressed in *The Ego and Its Own* (in German, *Der Einzige und sein Eigentum*). Stirner is a father of nihilism,

existentialism, post-modernism, and anarchism. Life is to be free from “dogmatic presuppositions” or any “fixed standpoint”. No concepts should rule people, but people should rule concepts.

Arriving at the border of my newly beloved Netherlands and seeing the wide, flat landscape that stretches west until, basically, the Atlantic Ocean, I thought of the Austrian/German philosopher and esotericist Rudolf Steiner (1861–1925). His “Philosophy of Freedom” considers discussions of the philosophers Immanuel Kant and Johann Gottlieb Fichte’s theories of knowledge, and his “Philosophy of Science” considers Johann Wolfgang von Goethe’s “Theory of Knowledge” in *World Conception*.

At last arriving at my home, I found myself physically exhausted but my recollections and musings were renewing. I felt confident that, yes, I may often be

professionally at the mercy of my environment and the world, but paradoxically also that I can select and give direction to my journal and research. I know there are influences, but rather than feel stifled by them, I have the will to address the challenges they present. I am refreshed at having taken the chance to revisit on my trip the ideologies of centuries of philosophers. I think that my excursion has awakened in me the essence of an ever-flowing stream, which in turn draws me back to my research focus on microreactors and flow chemistry. I am left to postulate that it really is true: “I research, therefore I am”.

Volker Hessel
Editor-in-Chief
E-mail: v.hessel@tue.nl