CHAPTER THREE

GOETHE’S ROMANTIC SCIENCE

What is the universal?
The single case.
What is the particular?
Millions of cases.

In July 1794, both Goethe (1996) and Schiller had been attending a lecture at the Jena scientific society and as the audience filed out, the two poets found themselves embarrassed to be left facing one another. Embarrassed, because Goethe felt that since Schiller had “rapturously embraced” the Kantian philosophy, he had been betraying his art, approaching Nature subjectively, “from the standpoint of so many human traits,” rather than “actively observing Nature’s own manner of creating,” and much to the frustration of their mutual friends, Goethe had been refusing to speak to Schiller.

Conversation could not be avoided however, and when Schiller remarked that the current “mangled methods of regarding Nature would only repel the lay person who might otherwise take an interest,” Goethe readily agreed, adding that “there might be another way of considering Nature, not piecemeal and isolated but actively at work, as she proceeds from the whole to the parts”…And so the pair conversed as they made their way home together. By the time they reached Schiller’s house, Goethe found himself expounding his observations of the metamorphoses of plants, and to illustrate a point made a quick sketch on a piece of paper. “But,” Schiller retorted, “this is not an empirical experience, it is an idea,” drawing upon Kant’s distinction between the faculties of sensation and reason. Goethe fought hard to suppress his rising anger, and politely remarked: “How splendid that I have ideas without knowing it, and can see them before my very eyes.” Thus Goethe drew Schiller’s attention to the unsolved problem in the Kantian philosophy of the objective sources of conceptual knowledge. Then ensued a decade of close friendship and collaboration until Schiller’s death in 1805.

Though 25 years his junior, Johann Wolfgang von Goethe was already an acclaimed poet before Immanuel Kant first gained his
reputation as a philosopher with his “Critique of Pure Reason” in 1787. And Goethe would continue to nourish the education of German speaking people from Marx and Wundt to Freud and Jung. When Napoleon occupied Jena in 1807, the only German he wanted to meet was Goethe (Pinkard 2000). It is unquestionable that the importance of Goethe in European culture has been greatly underestimated in the Anglophone world.¹

More than that, Goethe’s views on science and nature are only now beginning to come into their own after two centuries of eclipse, a fate to which Goethe himself was fully resigned. Goethe was not just a poet who dabbled in science. The study of Nature was for him a practice, ‘practice’ in the sense with which a Buddhist might utter that word, to be pursued diligently throughout his life. Goethe died about the time Lyell published his “Principles of Geology” and a quarter of century before Darwin published “Origin of Species” and Mendeleyev the periodic table of elements. These were the discoveries which really demonstrated the interconnectedness of Nature as a process of development and change. Science in Goethe’s day was engaged mainly in the collection and organization of data in botany, chemistry, zoology, etc., alongside the continuation of the Newtonian project, of rendering all the phenomena of Nature as the mathematical expression of metaphysical ‘forces’ and ‘vibrations’.

It was this latter tendency to which Goethe was most hostile. It was not that he was opposed to the use of mathematics in science; he admired the precision of mathematics, studied it and used it. But his vision for science he compared to the multiplicity of religious sects to be found in New York, where the many churches tolerated each other, each allowing that there was more than one way to the truth. But he saw that the kind of science which was organizing behind the banner of Newtonianism would establish itself as the one true model of natural science and would ultimately eradicate other modes of understanding and relating to Nature. Much of what Goethe had to say 200 years ago, has become commonplace criticism of the practice of natural science in recent decades.

There were a number of reasons for Goethe’s hostility to what I will call ‘positivism’, so as to avoid misuse of the name of Isaac Newton.

¹ Not in Russia though; Vygotsky, for example, directly cites Goethe 35 times in his Collected Works, compared with 26 citations of Hegel, all indirect.