Büchner, Friedrich Karl Christian Ludwig (Louis) (1824–99)

Ludwig Büchner wrote one of the most popular and polemical books of the strong materialist movement in the later nineteenth-century Germany, his Kraft und Stoff (Force and Matter) (1855). He tried to develop a comprehensive worldview, which was based solely on the findings of empirical science and did not take refuge in religion or any other transcendent categories in explaining nature and its development, including human beings. When Büchner tried to expose the backwardness of traditional philosophical and religious views in scientific matters, his arguments had some force, but the positive part of his programme was not free of superficiality and naivety. Büchner’s writings helped to strengthen progressive and rational traditions inside and outside philosophy, but they can also serve as the prime example of the uncritical nineteenth-century belief in science’s capacity to redeem humankind from all evil.

Büchner is commonly grouped together with Karl Vogt and Jacob Moleschott as one of the classical triumvirate of materialist philosophers in nineteenth-century Germany. Their special variant of materialism is often distinguished from other brands as ‘mechanical’, ‘bourgeois’, ‘scientific’ or ‘vulgar’ (see MATERIALISM §3). Büchner’s Kraft und Stoff (Force and Matter) became the most popular and enduring work of the materialist movement. Up to the First World War, it went through twenty-one editions and was translated into seventeen foreign languages, where it often saw numerous editions of its own.

Ludwig Büchner was born in Darmstadt, Germany. Like his brothers and sisters, he had a predilection for literary and journalistic activity and was engaged in republican and revolutionary opposition against the oppression of the Vormärz era. Büchner took up medicine at the university of Gießen in 1843 and became active in the revolutionary democratic movement of the time. In 1848 he entered his father’s medical practice. In 1852 he became lecturer in medicine at the university of Tübingen, but soon lost his post when Kraft und Stoff appeared. He returned to Darmstadt where he stayed for the rest of his life, practising medicine, popularizing science and writing on materialist philosophy, political and social issues.

In Kraft und Stoff, Büchner set out to formulate the philosophical consequences which he saw in the science of his day. He propagated a thorough empiricism, rejected metaphysics and speculative philosophy and every aprioristic tendency. No supranaturalism or idealism was to be allowed in the explanation of natural events and processes.

The arguments of the book are more or less all derived from its central claim, taken from Moleschott, that there is ‘no matter without force and no force without matter’. Force is inseparably bound to a material substrate and thus cannot be regarded as a kind of supernatural, transcendent entity. All changes and events follow mechanical laws. These laws are not imposed on nature from outside, but are built into matter itself. Matter is eternal and has no bounds, neither on a microscopic nor on a macroscopic scale. It is ruled by rigid and universal laws which do not allow for miracles. Soul or mind, as well as organic life, are the product of specially combined materials that are endowed with special mechanical forces. There is neither an immaterial spiritual substance, nor a vital force, nor an externally set purpose of nature.

Neither Büchner’s claims nor his supportive arguments can be said to be original. Kraft und Stoff was less an elaborated philosophical essay than a racily written summary of the materialistic trends of his time which did not mince its words and was intelligible to the layperson. At the same time, it carried a strong political significance. The flourishing of research in the natural sciences and technology was seen as a new and effective form of opposition against
the reactionary political powers which had defeated all liberal-republican and national aspirations by suppressing the revolution of 1848. The growing labour movement took Büchner’s materialism as a refutation and exposure of the ideology of the ruling classes and devoured his book. This sort of writing also quenched the thirst for knowledge of several generations of students at the Gymnasium. By appealing to the impartiality and the common sense of the autonomous reader and leaving the intricacies and obscurities of German speculative philosophy behind, Büchner’s work gave rise to a new genre of popularizing literature in which a rational and empiricist Weltanschauung is developed on the basis of natural science. Ernst Haeckel, Wilhelm Ostwald, Wilhelm Böltsche, the early Vienna Circle and to a certain extent even Ludwig Wittgenstein in his Tractatus all continued this tradition. As Büchner put it: ‘Philosophical elaborations not accessible to every educated person are not worth the printer’s ink used for them. What is thought out clearly can be said clearly and plainly’ (1855).

In the course of time Büchner enlarged the topics of his writings mainly in two respects. After the rise of Darwinism he emphasized its intimate relation to or even virtual identity with materialism and tried to show its positive implications for a general theory of progress. The other attempt at expanding the realm of his philosophy was to erect a humanistic and rational sociopolitical theory on his materialism which still owed very much to his liberal ideas of 1848. After the foundation of the new Reich he did not succumb to the temptations of nationalism, although his social and political ideals started to become obsolete and did not find a large number of supporters. His considerations included a far-sighted condemnation of the anti-Semitism of his time.

Büchner’s work met with harsh opposition from many different quarters. From a philosophical point of view, the most important and momentous criticism was expressed by Friedrich Albert Lange (§2) in his Geschichte des Materialismus und Kritik seiner Bedeutung in der Gegenwart (History of Materialism and Criticism of Its Present Importance) (1866). While standing up for Büchner against the accusation that materialism leads to immorality, and conceding a materialist methodology as even a necessity for the working scientist, Lange gave a penetrating analysis of the internal difficulties, weaknesses and inconsistencies of the philosophy of Büchner and other materialists.

This kind of criticism formed a crucial motive for rising Neo-Kantianism and led to a general recovery of philosophy’s standing in Germany. Even among those who admitted the centrality of science for modern society and saw much truth in materialism, the conviction arose that philosophy had more to say than is contained in Kraft und Stoff and that it had not lost the right of autonomy vis-à-vis science.

List of works

Büchner, L. (1848) Beiträge zur Hall’schen Lehre von einem excito-motorischen Nerven-System (Contributions to Hall’s theory of an excito-motorous nervous system), Gießen: Schild. (Büchner’s medical dissertation from 9 September 1848.)


----- (1861, 1875) Physiologische Bilder (Physiological images), Leipzig: Thomas, 2 vols. (On physiological topics.)


----- (1863) Herr Lasalle und die Arbeiter. Bericht und Vortrag über das Lasalle’sche Arbeiterprogramm, erstattet auf dem Arbeitertag in Rödelheim am 19. April 1863, im Auftrag des Central-Comités der Arbeiter des Maingaus (Herr Lasalle and the workers. Report and address on Lasalle’s Worker-programme), Frankfurt am Main: Baist. (A discussion and criticism of the views of Ferdinand Lasalle, an early proponent of the social-democratic movement in Germany.)


----- (1885) Der neue Hamlet. Poesie und Prosa aus den Papieren eines verstorbenen Pessimisten (The New Hamlet. Poetry and Prose from the Papers of a Deceased Pessimist), Zürich: Verlags-Magazin, J. Schabelitz. (This is a collection of early literary work by Büchner which includes an interesting autobiographical fragment on 189–196. It appeared under the pseudonym Carl Ludwig. A second edition appeared under the author’s real name in Gießen, E. Roth, 1901.)


----- (1890) Fremdes und Eignes aus dem geistigen Leben der Gegenwart (Notes from Myself and Others on the Spiritual Life of the Presence), Leipzig: Spohr. (A collection of essays on different subjects.)

----- (1894) Darwinismus und Sozialismus, oder: Der Kampf ums Dasein und die moderne Gesellschaft (Darwinism and Socialism, or: the Struggle for Existence and Modern Society), Leipzig: Günther.

----- (1894) Meine Begegnung mit Ferdinand Lasalle. Ein Beitrag zur Geschichte der sozialdemokratischen Bewegung in Deutschland. Nebst fünf Briefen Lasalles (My Encounter with Ferdinand Lasalle. A Contribution to the History of the Social-Democratic Movement in Germany. With five letters by Lasalle), Berlin: Hertz & Süßenguth. (Recollection of his encounter with the founder of the German social-democratic party, Lasalle.)

------ (1900) *Im Dienste der Wahrheit. Ausgewählte Aufsätze aus Natur und Wissenschaft* (In the Service of Truth. Selected Papers on Nature and Science), Gießen: Roth. (Again a collection of essays. Contains a biography of Ludwig Büchner by his younger brother Alex.)


Wittich, D. (ed.) (1971) *Vogt, Moleschott, Büchner: Schriften zum kleinbürgerlichen Materialismus in Deutschland* (Vogt, Moleschott, Büchner: Writings of vulgar materialism), Berlin: Akademie, 2 vols. (This reprint of the important writings of materialists includes also a reprint of the 1855 edition of *Kraft und Stoff*. The editor gives a useful 82-page introduction.)

References and further reading


Büchner, A. (1963) *Die Familie Büchner. Georg Büchners Vorfahren, Eltern und Geschwister* (The Büchner Family: Georg Büchner’s Ancestors, Parents, Brothers and Sister), Hessische Beiträge zur deutschen Literatur, Darmstadt: Roether. (On the background of Büchner’s family. 64-81 gives an account of Büchner’s life by his grand-nephew and a reprint of Büchner’s autobiographical fragment.)

Gregory, F. (1977) *Scientific Materialism in Nineteenth-Century Germany*, Dordrecht: Reidel. (Standard account, comprehensive and very readable.)


with politics/political philosophy and its transformation into the movement of ‘scientific monism’ in Germany in later years.)


Ziegler, T. (1899) Die geistigen und sozialen Strömungen des neunzehnten Jahrhunderts (The Intellectual and Social Movements of the Nineteenth Century), Berlin: Bondi. (Chapter 11: ‘Naturwissenschaft und Philosophie um die Mitte des Jahrhunderts’ gives a vivid, still readable and valid account.)

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