

Chapter 13

A “Precious Being” in Adversity

In this introduction, I have tried to set out Bohm’s ideas in the letters about physics, philosophy, politics, and so on, rather than attempting to examine his psychology. However, at times, his psychological state seems to dominate the letters, making some discussion of its traits and origins inevitable and necessary. Bohm was a sensitive and creative individual, who found himself in extraordinary conditions that neither his psychological make-up nor previous experience had equipped him to handle with any degree of assurance.

Let us first consider some of the key examples in the letters in which Bohm displays what might be considered to be excessive emotional responses. Admittedly, we are reading personal letters here, but most of the instances we are referring to involved people with whom Bohm was working or was in contact, other than Miriam, Melba and Hanna.

In the physics department in São Paulo, as the term began in March, 1952, we find Bohm in a huge conflict with two other professors, Marcello Damy de Souza Santos and Hans Stammreich. In a series of letters to Hanna¹ to Melba² and to Miriam,³ Bohm denounces these two colleagues as “rats”, “stinkers” and “jokers” with “low moral character” and “no ability”. They keep things in a state of “continual turmoil”, which necessitates a continual fight with them to get anything done, a fight which has been going on for several years, and now takes up 20% of the time in the department. The director of the faculty and several others oppose their “fantastic plots” to hold back development and keep things under their control, but because they have tenure, they are difficult to get rid of. One can see here some possible justification for Bohm’s complaints.

¹(15, **21**, p. 124) and (15, **22**, p. 125).

²(16, **29**, p. 139), (17, **36**, pp. 149–150), (17, **37**, pp. 150–151), (17, **38**, pp. 153–154), (17, **39**, pp. 156–157) and (17, **41**, pp. 159–160).

³(22, **72**, p. 251), (23, **74**, pp. 257–259) and (23, **75**, pp. 259 and 261).

The problem escalated as one of Bohm’s assistants, who was very wealthy, apparently with fascist leanings and military connections, began to finance an Institute for Theoretical Physics. The German physicist Carl Friedrich von Weizsäcker was brought in to head the institute for a period of 3 months, along with some German students. The plan was that he would be replaced by Heisenberg for a further 3 months, and so on. With “so much money, political influence and big names”, they were expected to exert much influence in Brazilian physics. Bohm feared that, with the support of the “rats”, von Weizsäcker’s prestige was being boosted against his own. Supposedly, the “rats” and the “Nazis” were pressurizing Bohm to drop Ralph Schiller from coming to the university and to take two Germans instead, otherwise they threatened to bring in the military, presumably against “communists” in the university. Bohm was “90%” convinced that von Weizsäcker was involved in the “Nazi” plan and prepared to mobilize the opinion of international physicists, including Einstein, against it. Fortunately, though no details are given in the letters, von Weizsäcker did not appear to be interested in continuing and Heisenberg never came. Despite Bohm’s hostility, it seems that von Weizsäcker valued discussions with Bohm, which inspired him in his own approach to the foundations of quantum mechanics.⁴

The second example of an extraordinary emotional response from Bohm is at the beginning of 1953, in a series of six consecutive letters to Miriam⁵ regarding the remarks, allegedly made by George Yevick and Eugene Gross, that we considered in Chap. 8, “Let him give us results”. Bohm and Miriam eventually call the episode the “storm” and tried to minimize it. They agreed that, most probably, there had been a misunderstanding. Gross had merely made the point that physicists in general would only respond to Bohm’s causal interpretation when there were new results, he had not been placing any demands on Bohm personally.

Nevertheless, based on this apparent misunderstanding, Eugene Gross came in for a series of the most vitriolic personal attacks. Bohm thought that Gross was trying to avoid persecution by the state for his Marxist beliefs: “Gene’s little plan to sit around for 20 years and keep his heart pure while all his friends go into concentration camps is not very practicable”. The tirade continues: “Gene is much more in danger of “going to pot” than I am, unless something happens that will knock him out of the smug groove in which he moves.” Eugene and his wife “take their friends to pieces”, which Bohm regards as compensation for “their own dissatisfaction with their futile life in a middle class environment closed to new ideas.” Gene “lacks initiative in exploring new ideas, and in applying his philosophical principles”, he had reversed his “class philosophical position”, and so could no longer be regarded as a friend, etc. Whether any of these denunciations ever reached Gross is not clear, but there is no indication that there was any rift between them. In fact, in Bohm’s *Festschrift*,⁶ Gross gave glowing praise to his former research supervisor.

⁴Freire Jr. (2005).

⁵(26, 93, pp. 308–310), (26, 94, pp. 310–312), (26, 95, pp. 313–315), (26, 96, p. 316), (26, 97, p. 319) and (26, 98, p. 321).

⁶Hiley and Pea (1987) pp. 46–49.

Thirdly, we consider the case of a professor and colleague in the physics department, Mario Schönberg. When he returned from Europe to São Paulo in March, 1953, Bohm reacted strongly against him.⁷ He was the “strangest type of Marxist”, resembling a “Jewish businessman”:

He engages in all the dirty intrigues here in a very short-sighted way, and in physics, he is a pure formalist and idealist, admiring Pauli as the ideal in [a] theoretical physicist. All this goes under the name of the purest dialectical materialism.

Miriam had suggested that Bohm was over-hostile towards him,⁸ but the issues were “objective”, Bohm replied. Schönberg claimed to be a Marxist in politics, but this was in direct opposition to his philosophy of science. Not only did he admire Pauli, he attempted to propagate Pauli’s idealist views in relation to quantum mechanics. Moreover, in the physics department, he supported the two “stinkers” referred to above. Schönberg knew of their anti-communist intrigues against Bohm, but “does not seem to think it important”.⁹ Bohm suspected that the two “rats” in the department were trying to get rid of him and that Schönberg was working with them.¹⁰ There seems to be little in common between Bohm and Schönberg in physics or philosophy. Schönberg is “100% against the causal interpretation, especially against the idea of trying to form a conceptual image of what is happening,” and he thinks that the “true dialectical method is to seek a new form of mathematics”. Also, Schönberg was arguing for “pure chance” as opposed to Bohm’s “reactionary” and “undialectical” attempt to explain chance in terms of causality. However, in spite of this apparently total lack of agreement, as we pointed out in Chaps. 8 and 9, by 1954 the letters show that Bohm is working with Schönberg on a “turbulent ether explanation of the quantum theory,” and has accepted the view that there is a dialectical relationship between causality and chance.

The final case of emotional response in letters has already been discussed in some detail in Chap. 11. on Bohm’s politics. We considered Bohm’s obvious anger at Miriam, who, he suspects, is siding with the “anti-Communist” left, as well as his personal attack on Victor Weisskopf. In this case, we suggested that Bohm was reacting defensively, as the outburst coincided with a decline in the support for the USSR in left politics, especially after Stalin’s death and as more revelations about the regime were coming out. We will return to the political issues, but will first consider the other enormous pressures that Bohm was under. He clearly realized that he tended to act irrationally. In one of the “storm” letters he wrote: “I have to guard myself

⁷(27, 99, p. 326).

⁸(27, 102, p. 335).

⁹In his autobiography, Bunge refers to Schönberg as “an imaginative physicist, art critic, nationalist, a communist militant, and believer in telepathy”. As soon as he arrived in São Paulo, there was an “ugly fight” between him and Bohm over the running of the department, and in the seminar “Bohm put in evidence his unstable temper as well as his prodigious imagination”. Bunge (2016), pp. 90–91.

¹⁰(28, 106, pp. 350–351) and (28, 109, p. 356).

about getting too excited about what I am doing, or else, these excessively intense feelings will destroy me”.¹¹

With McCarthyism against academics rampant in the US,¹² Bohm’s situation in Brazil was extremely vulnerable. Shortly after he arrived there, the US embassy confiscated his passport, preventing him from travelling abroad. He could either stay in Brazil or return to the US, where he believed he faced the prospect of imprisonment.¹³ Later, Lilli and Hanna¹⁴ suggested that he should return, presumably because the case against Joseph Weinberg had been dropped, but Bohm felt it would be unsafe for him to do so. In this particular instance, his reaction may not have been exaggerated. It is important to understand the context. As Sean Mullet has pointed out,¹⁵ the treatment that the US government meted out to suspects under the McCarthyite campaign was far from uniform, making it difficult to judge what would be the likely outcome of any course of action. This level of uncertainty must have increased the tension for those under investigation. In any case, as Sean Mullet points out in his examination of the cases of David Bohm, Bernard Peters, Joseph Weinberg and Rossi Lomanitz, the McCarthy witch-hunt was “a sustained pressure or presence throughout much, if not all, of their adult lives”.¹⁶

Bohm had experienced a difficult childhood, and then found himself in an environment that was socially and culturally alien to anything he had experienced in Wilkes Barre. The transition from a small industrial American town to an elite university would be challenging for anyone at any time. At Berkeley, in Oppenheimer’s group, he came under the influence of Oppenheimer himself and other left-wing physicists, fundamentally shifting his views on the nature of the Soviet Union, which he had once criticized in a high-school debate. Socially awkward and prone to depression accompanied by related digestive problems, he was also subject to feelings of alienation.¹⁷ Bohm came under the wing of Lilli and Erich Kahler and their daughter Hanna after he moved to Princeton, and seemed to have something of a support network of friends. Wrenched out of that environment by the McCarthyite campaign, he found himself in very different circumstances. Brazil was then a developing country, and Bohm was clearly overwhelmed by noise, traffic, pollution, building-sites, widespread corruption and so on, not to mention the difficulties of finding suitable food and accommodation.¹⁸ He experienced serious stomach problems necessitating courses

¹¹(26, 96, p. 316).

¹²Schrecker 1986.

¹³(15, 18, p. 120), (15, 19, pp. 121–122), (16, 30, pp. 139–140), (16, 31, pp. 141–142), (16, 32, pp. 142–143), (17, 35, p. 147), (17, 36, p. 149), (20, 62, pp. 216–217) and (21, 64, p. 221).

¹⁴(15, 22, pp. 126–127) and (15, 24, pp. 128–129) and (15, 25, pp. 130–131).

¹⁵Especially comparing the case of David Bohm, who was issued a passport, and that of Bernard Peters, who was denied one, Mullet (2008), Chap.5.

¹⁶Mullet (2008), p. 209.

¹⁷For example, in Princeton, in 1950 he wrote: “I remain sick in the intestines as long as I am depressed and depressed as long as I am sick” (14, 6, p. 105), and “worst of all is just the loneliness, which is enhanced by the fact that there are so few people with whom I can feel in sympathy these days. (14, 9, p. 108).

¹⁸See the references to letters on Brazil in Chap. 11.

of antibiotics, and the bouts of depression worsened. The strict social morality in middle class Brazilian life made it impossible to develop sexual relationships.¹⁹

The university of São Paulo was struggling to establish itself in world class physics and Bohm found himself with the new responsibilities of a senior faculty member. At Princeton, Bohm apparently had no administrative duties. An indication of his privileged position is that an assistant was appointed to work through the galley proofs of *Quantum Theory*.²⁰ Bohm is obviously aware of his previous elevated position when he refers to the impossibility of working at “some place like Louisville, Kentucky, which is 10 times as bad as São Paulo”.²¹ However, any rising academic at an early stage in his career, who would have to deal with obstructive staff members and the conflicts of department politics, could find the situation overwhelming, and the two “stinkers” seem to have created exceptional difficulties.

On top of all these pressures, we must consider Bohm’s politics and the tensions created by it in all the examples cited. Politics must be seen to include philosophical tensions as well, because despite Bohm’s creative development of the dialectical materialist philosophy in relation to physics, he effectively takes the approach of a Stalinist “Bolshevizer”, as outlined in Chap. 12. The materialist line in philosophy should be seen as relating to Bohm’s position on class and must be understood in tandem with his pro-Soviet politics. In this sense, Eugene Gross appeared to be moving away from his previous “class philosophical position”, and Schönberg, supposedly a Communist Party member, had a duty to support materialism in quantum physics. Miriam, on the other hand, was obviously raising questions that were increasingly difficult to answer.

Bohm’s response to von Weizsäcker was also a result of his Stalinist politics. It is certainly possible that individuals with fascistic views, in league with the two “stinkers”, were causing problems for a known supporter of Communism such as Bohm. The support for Nazis, however, is hardly likely in von Weizsäcker’s case. It is true that he, together with Heisenberg and others, had been involved in the efforts to construct an atomic bomb under the Nazi regime during World War Two. There has been much historical investigation into whether they were sincerely trying to build a bomb or merely pretending, not really wanting the Nazis to have such a weapon. In fact, the Nazi regime got nowhere near to producing atomic weapons. Von Weizsäcker and Heisenberg were imprisoned after the war and interrogated on the issue by the British. Whatever the truth on their involvement with the atomic bomb during the war, there is no evidence whatsoever that they had any commitment to Nazism after they were released, quite the opposite in fact. For example, Von Weizsäcker, who held a series of academic posts, actively campaigned against Germany having nuclear weapons.

Bohm was basing himself on the Stalinist position that West Germany was a potential Nazi threat, as referred to in Chap. 11. As we saw, this informed Bohm’s

¹⁹There are too many letters referring to these questions to list references.

²⁰(14, 10, p. 110).

²¹(23, 79, p. 270). Olival Freire, on the other hand, points out the relative advantages Bohm had in Brazil, such as support for visiting researchers, etc. Freire Jr. (2015).

great concern over “German rearmament”. With such a background in politics, it was easy, therefore, for Bohm to jump to the conclusion that von Weizsäcker was leading a Nazi takeover. However, those physicists, such as Einstein, that Bohm contacted with a view to waging a campaign against Von Weizsäcker, would, presumably, have raised questions about Bohm’s grip on political reality.

In conclusion, Bohm’s emotional instability during the Brazil period relates to exceptional conditions: insecurity over his lack of a passport (he eventually took Brazilian citizenship in order to move to Israel), the problems of academic responsibilities, difficulties with depression and sickness in a developing country, an environment for which he was ill-equipped, as well as feeling politically beleaguered as he tried to defend Stalinist ideas.

Bohm was particularly unsuited to withstand political pressure, and it is possible that he did have some contact with the Communist Party, as we suggested in Chap. 11. in relation to a sharp change in his views on Deutscher. In Bohm’s *Festschrift*, Eugene Gross makes the following telling remarks:

Finally, I can only use old-fashioned language to describe his impact on me and others. Dave’s essential being was then, and still is, totally engaged in the calm but passionate search into the nature of things. He can only be described as a secular saint. He is totally free of guile and competitiveness, and it would be easy to take advantage of him. Indeed, his students and friends, mostly younger than he is, felt a powerful urge to protect such a precious being. Perhaps the deep affection of his many friends helped to sustain him in the difficult years of the early 1950s.

It may well be that the affection of his friends did protect him before he left for Brazil but unfortunately, his emotional outbursts also testify to the difficulties that unfolded afterwards. Once he had made the break with Stalinist politics in Israel and had gained some emotional support after marrying Saral, he apparently steered clear of politics entirely. In his obituary to David Bohm,²² Basil Hiley found it hard to believe he had ever even had Marxist views. Such a suggestion “is a travesty of the truth and in my 30 years working with him I never heard him even mildly defending such a faith”.

No reports or discussions about David Bohm living in England, from 1957 onwards, suggest that he was a man given to excessive and angry emotional outbursts. He seems to have learned a great deal from his psychological problems in Brazil and perhaps made sure that the “secular saint” was again dominant. According to David Peat²³ Bohm “found it difficult to express anger within his personal relationships”, although he could end up shouting, “if someone disagreed with his ideas”. Later he learnt to adopt a non-adversarial approach, telling Basil Hiley that “arguing with people assertively is not profitable”. Also as Hiley explained in his obituary, Bohm was not interested in rising up the “pecking order”: “Although courageous and tenacious in defending his ideas, his natural humility and gentleness were such that he did not actively seek honours, and it was this quality that people so admired”.

²²The Independent, October 30, 1992.

²³Peat (1996), p. 244.

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