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COMMENT

Medical Science in the Light of a Flawed Study of the Holocaust:

A Comment on Eva Hedfors' Paper on Ludwik Fleck

Olga Amsterdamska, Christian Bonah, Cornelius Borck, Johannes Fehr, Michael Hagner, Marcus Klingberg, Ilana Löwy, Martina Schlünder, Florian Schmaltz, Thomas Schnelle, Antke Tammen, Paul Weindling and Claus Zittel

In her PhD thesis Reading Fleck: Questions on Philosophy and Science (Hedfors, 2006) and her papers based on it, Eva Hedfors proposes a scientifically informed reading of Ludwik Fleck that aims to contest the (putative) mythology of Fleck. According to Hedfors, Fleck is believed to have been an important scientist. However, a careful reading of his scientific papers, she claims, reveals that Fleck's studies were poorly done, often meaningless and of doubtful ethical value. Hedfors also hints that one of Fleck's aims in promoting his views on science as a social endeavour was to legitimate his own scientifically weak and ethically suspicious research.

Hedfors has also a very low opinion of Fleck's epistemological thought. In the preface to her thesis she explains that when she first read Fleck, she viewed him as a 'Sokal before Sokal on a rather local level', and found a widespread interest in his writings, 'one of those inscrutable facts we often face'.¹ This is surely a legitimate point of view. Hedfors' efforts to deflate the Fleck myth can be seen, however, as a somewhat misguided endeavour. Researchers interested in Fleck's life and science provided many years ago a realistic assessment of his scientific achievements. They stressed that in the 1920s and 1930s, when he wrote his important epistemological studies, that Fleck worked in a peripheral 'service' discipline (serology), in a peripheral country (Poland) and a non-academic setting (he headed a routine analysis laboratory). Historians of science and medicine also are aware of the fact that Fleck's scientific papers were as good – or as bad – as other average studies in his scientific domain.

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Hedfors' proposal that Fleck conducted ethically doubtful research culminates with her assertion - made in her paper 'Medical Science in the Light of Holocaust: Departing from a Post-war Paper by Ludwik Fleck', published in April 2008 issue of Social Studies of Science (Hedfors, 2008) that Fleck was willingly involved in Nazi medical experiments. These experiments, in which concentration camp inmates were deliberately infected with typhus, were conducted in Block 46 in Buchenwald by the SS doctor Erwin Ding (also known as Schuler). They led to the death of presumably several hundred inmates.2 Fleck explained after the war that in 1943 he, together with other prisoners, was brought to Block 50 to Buchenwald to work on the preparation of an anti-typhus vaccine.3 According to Hedfors, this claim is inexact. Fleck was not brought to Buchenwald to work on the large-scale production of a vaccine, but to perform the Weil-Felix test – a blood test which confirms a diagnosis of typhus – on prisoners deliberately infected with this disease.⁴ He then became a willing and eager participant in Ding's murderous enterprise. This is a grave accusation. To paraphrase Hedfors, her criticism of Fleck's research before the war amounts to a rather harmless pursuit, but her description of Fleck's activity in Buchenwald assumes a different standing.⁵

In this comment, we argue that Hedfors has no valid proof of her allegations concerning Fleck's behaviour in Buchenwald. Her paper is grounded mainly in a selective reading of secondary sources, and it fails to take into account the available historical evidence. Furthermore, Hedfors (2008: 275–76) subscribes to the thesis that Nazi medical experiments should be considered as 'pseudoscience' without clearly defining her understanding of this analytical and historical–interpretative designation. She thus corroborates without critical reflection a post-war characterization that has been widely questioned by historians of Nazi science and medicine in the last 15 years.

A few examples (chosen among Hedfors' numerous inexact statements) illustrate the serious shortcomings of her historical scholarship:

According to Hedfors, 'post-war accusations that Fleck was involved in Ding-Schuler's murderous experiments on typhus are based on the testimony given during the Nuremberg Medical Trials Balachowsky, professor of entomology at the Pasteur Institute, who was one of the former prisoners in Block 50. ... Those accusations are reinforced by Fleck's own publication' (Hedfors, 2008: 270). Both assertions are inaccurate. During the Nuremberg Medical Trial, Balachowsky's affidavit was introduced as prosecution exhibit no. 291. It was read on 9 January 1947 during the trial proceedings but in absence of Balachowsky.⁶ The original affidavit was given by Balachowsky in Paris on 15 May 1946. In this document Balachowsky accused Fleck of incorrect behaviour, but he never claimed that Fleck himself was involved in murderous experiments. Moreover, the reliability of Balachowsky as a witness was not only questioned by the defence in the Nuremberg Medical Trial but also by the former political prisoner Eugen Kogon, who was working in the same block in Buchenwald as Balachowsky. Both sides criticized Balachowsky's

affidavit for being largely based on third party reports he received in Buchenwald and not his own personal experience. In spite of his sympathies for Balachowsky, Kogon later qualified the testimony given by Balachowsky in the Nuremberg Medical Trial as 'not fully reliable' and stated that he would 'make a good impression' but doubted that he had 'direct experience in those things'.⁸

Hedfors' parallel proposal that Fleck himself admits in his 1946 paper that he participated in Ding's murderous experiments is based on a very peculiar reading of that paper (Fleck, 1946). Fleck's paper explains that it is based on observations made in Lwów, Auschwitz and Buchenwald. It provides data on the Weil-Felix reaction of people either infected with typhus or free from such an infection. Some of these people are described as originating from Western Europe. Hedfors sees this as a definitive proof of Fleck's active involvement with Ding's typhus experiments, because Buchenwald was the only place Fleck could obtain sera from people of West European origins. However, before he was sent to Buchenwald, Fleck worked for 9 months in Auschwitz in the laboratory of the Hygiene Institute of the Waffen-SS, situated in Block 10, first floor. There, Fleck performed routine analysis of blood and urine. He had therefore access to sera of people from numerous countries, whether infected or not with typhus (this disease was present in Auschwitz, but not in Buchenwald). Even if one assumes that some or all the sera mentioned in the 1946 paper were collected in Buchenwald and not in Auschwitz, this does not mean that Fleck actively participated in Ding's experiments. Papers published by Ding (1943a,b; 1944) do not indicate that he was interested in the subject of Fleck's 1946 paper, the calibration of the Weil-Felix test. A more likely explanation may be that he had access to sera collected for a different purpose (for example, to confirm a diagnosis of typhus), and used them to perform additional experiments in his free time (prisoners in Block 50 worked only a part of the day). If this interpretation is correct, Fleck's attempt to conduct a scientific investigation in a concentration camp may be seen as silly or frivolous; it may also be seen as an effort to do something useful (however modest), and/or to remain sane in insane conditions. Hedfors speaks about Fleck's 'unquestioned use of prisoners' (p. 276), using an emotionally loaded term to describe an activity that might have consisted of making a few additional agglutination tests on sera already present in a laboratory.

(2) Alfred Balachowsky's affidavit was published by François Bayle in 1950 in a book on crimes of Nazi doctors based on documents of the Nuremberg Medical Trial. Balachowsky's main accusation was that Fleck gave Ding information used by the latter to start a new experiment on humans. Fleck explained that he learned about Balachowsky's charge only in 1958, after his emigration to Israel. He then provided a long and detailed answer to Balachowsky's allegations, destined for the *Polish Medical Weekly*. This text is obviously highly relevant for the understanding of Fleck's role in Buchenwald, yet is completely ignored by Hedfors. In his answer to Balachowsky, Fleck argued that no other prisoner of Block 50 ever accused him of improper or irresponsible behaviour. He provided

written testimony from Professor Robert Waitz, of Strasbourg (one of the more prominent inmates of block 50), attesting that Fleck was respected by other prisoners. ¹⁴ Fleck explained then that Balachowsky's accusation, such as it appears in Bayle's book, is illogical and therefore cannot be true. Typhus specialists know that the experiment presumably suggested by Fleck to Ding could never work (Balachowsky was an expert on plant diseases, not on typhus). Finally, Fleck advanced two possible reasons for Balachowsky's hostile attitude: personal animosity and right-wing convictions (including anti-Semitism).

- Balachowsky, it so happens, kept a diary in Buchenwald. The diary today is kept in the National Library, Paris, with a copy at the Pasteur Institute. It provides highly interesting insights into life of prisoners in Block 50 in Buchenwald, including, for example, the information that Balachowsky performed scientific experiments in his free time. The diary confirms the existence of a conflict between Balachowsky and Fleck. Thus, on 26 March 1945, Balachowsky wrote in his diary 'balloon 10 litres broken by Fleck! The series 115 – 10,000 Reichmarks lost!'15 Balachowsky's diary also displays his negative attitude towards Jews. For example, in his notes from 24 January 1945, Balachowsky described a convoy of Jews from Auschwitz that arrived in Buchenwald: 'I saw this convoy, it is composed from tiny, degenerated individuals, plagued by eye sickness, bent into two, a totally dazed race characterized by small height ... repulsive dirt of halfwitted Jews ... Physically hideous, abnormal eyes, huge ears, big noses, horrendous.'16 The diary, central to the understanding of events in Block 50, is not mentioned in Hedfors' paper even though it has been referred to in historical studies on Fleck years ago.
- Hedfors affirms that Fleck 'does not pass any judgment on the science pursued in Buchenwald' and that 'Fleck's peculiar selective blindness could easily be interpreted as treating the end to justify means' (p. 276). The accusation that after the war Fleck did not condemn Nazi experiments on humans is in total contradiction with Fleck's letters, testimonies and interviews, in which in the most categorical terms Fleck condemned Nazi experiments on humans, especially those involved with typhus. For example in a letter to Hirszfeld from 1948, Fleck described the repulsive behaviour of well-known German scientists who planned and executed experimental infections of prisoners with typhus, and then, after the war, attempted to whitewash themselves in a cowardly and foul way. He called it a nauseating spectacle. ¹⁷ Fleck's 1945 account of his stay in Buchenwald, made in the framework of a campaign to collect testimonies of surviving Polish Jews (the original is at the Jewish Historical Institute, Warsaw), was probably among the first accounts of human experiments in Buchenwald. 18 Fleck reported in this text the killing of approximately 900 prisoners deliberately infected with typhus, and described experiments with chemical burns and starvation.19
- (5) While Hedfors fails to prove her specific claims about Fleck's behaviour in Buchenwald, it is highly probable that Fleck and other prisoners of

Block 50 were forced to perform the Weil-Felix reaction and perhaps other laboratory tests with sera from people deliberately infected with virulent strains of typhus. For example, in his 1958 answer to Balachowsky's accusation, Fleck claimed that the Weil-Felix test was performed by a French prisoner, René Morat, while in his 1945 testimony on his stay in Buchenwald he explained that he performed this test himself.²⁰ Moreover, in his testimony in the Nuremberg trial, Balachowsky attested that index cards with experimental results from Block 46 were transcribed in Block 50. If that was the case, prisoners of Block 50 indeed indirectly 'collaborated' with Nazi experiments on humans. Assuming that inmates of Block 50 performed routine laboratory tests on the blood of victims of Ding's experiments and transcribed the results of these experiments, what choice did they have? Prisoners in Block 50 laboured under extreme coercion, something Hedfors' paper does not mention at all. When asked by the defence lawyer in the International Military Tribunal at Nuremberg if he pitied the victims of Nazi experiments, Balachowsky explained: 'My pity was very great, but it was not a question of having pity or not; one had to carry out to the letter the orders that were given or be killed.'21 Moreover, a prisoner's refusal to carry out orders (a behaviour which put their life in immediate danger) was unlikely to diminish Ding's experimental zeal.

The story of Block 50 in Buchenwald, as told after the war by ex-prisoners (Balachowsky, Waitz, Fleck, Ciepiełowski, Kogon), stressed sabotage and resistance, and did not dwell on a (very likely) forced cooperation with Ding's experiments on humans. In spite of the abundance of testimonies of ex-prisoners of Block 50, to uncover what 'really' happened there between 1943 and 1945, and who exactly did what, may be an impossible task. Paucity of reliable data and the difficulty of establishing causal links is not, however, an excuse for lowering the standards of historical scholarship: it is a good reason to raise such standards. Alas, this does not seem to be Hedfors' choice. In the introduction to her thesis, Hedfors (2006: 15) explains that STS writers who adopted Fleck's ideas show 'a disregard of old scholarly virtues such as the mastering of the subject matter under study, and the tracing of the history, the sources and the context'. Regrettably, this sounds like an accurate description of Hedfors' own neglect of key historical sources, and her apparent unwillingness to get in touch with scholars who studied Fleck's life and work and could have directed her to these sources. Even more regrettably, this neglect of the relevant historical evidence led to an unsubstantiated accusation of a prisoner of a concentration camp (whoever he may be) of a willing and even enthusiastic participation in Nazi murderous experiments on humans.

Notes

This is a collective text, produced through numerous exchanges among all its authors. Correspondence and further queries should be addressed to Johannes Fehr (see below).

1. The preface and introduction to Hedfors' thesis are available online at <www.diva-portal.org/diva/getDocument?urn_nbn_se_kth_diva-4250-2_fulltext.pdf>.

- The exact number of prisoners killed in these experiments is not known. See Weindling (2000: 355–56, 367–69) and Werther (2001: 166). More precise data will emerge from the ongoing AHRC project on Victims of Nazi Human Experiments, conducted by Paul Weindling and Marius Turda.
- Ludwik Fleck, testimony from 3 February 1958 (O.3/650), Yad Vashem Archive, Jerusalem; Fleck's curriculum vitae from August 1957. Documents in FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich.
- 4. In winter 1941–42, Fleck was sent by Germans to work on the production of typhus vaccine in the 'Laokoon' factory near Lwów. It is thus highly probable that he was known to the Germans as an expert in this domain (Leszczyńska, 2006). Richard Otto (Frankfurt) was informed of Fleck's ghetto vaccine (Weindling, 2000: 364).
- 5. According to Hedfors (2008: 278), 'The accusation against Fleck could be that he, blinded by his commitment to science, indulged in faulty science. Before the war while he was working outside the academy, this amounted to a rather harmless pursuit, but while he was a prisoner of Block 50 in Buchenwald, it assumed a different standing'.
- 6. Wortprotokoll 19. Verhandlungstag (9.1.1947), pp. 1362–72. Dörner et al. 1999, Microfiche 02/1362–72. Balachowsky's name is usually spelled 'Bałachowski' – the Polish/Russian spelling – in the documents from the Nuremberg trial, but in France he signed his name 'Balachowsky'.
- 7. Ibid., pp. 1370–71; Alfred Balachowsky, 'Erklärung betreffs Versuche und Forschungsarbeit auf dem Gebiet des Fleckfiebers im Lager Buchenwald, 15 Mai 1946 [Explanation Regarding the Experiments and Research Work in the Field of Typhus in the Camp of Buchenwald, 15 May 1946]', Nürnberger Dokument NO-484 = Exhibit 291 (Staatsarchiv Nürnberg KV Prozesse, Fall 1, B 19) Anklagedokumentenband 19, fol. 64–73; Dörner et al. (1999), Microfiche 03/1552–61. For the French affidavit see: Alfred Balachowsky: Deposition au sujet des experiences et recherches faites sur le typhus exanthematique de camp des Buchenwald, 15.5.1946, NO-484, Ibid., Microfiche 04/4890–904. Balachowsky testified several times. His first testimony was given personally with a cross-examination on 29 January 1946, during the 'Trial against the Major German War Criminals'. He did not mention Fleck in this testimony. In May 1946, Balachowsky gave an affidavit in Paris, in which he accused Fleck of incorrect behaviour. The second testimony was used during the Nuremberg Medical Trial, 1946–47.
- 8. 'Ich kenne Balachowsky gut, ich mag ihn leiden, aber er hat meiner Ansicht nach da einige Dinge ausgesagt, die er nicht ganz verantworten kann. Er ist da nicht ganz zuverlässig. Ich weiss, er wirkt gut, aber er hat keine unmittelbare Erfahrung in diesen Sachen [I know Balachowsky well and I like him, but in my opinion he testified about a few things he cannot fully account for. He is not fully reliable here. I know he makes a good impression, but he has no direct experience].' Interrogation of Eugen Kogon by Benvenuto von Halle 28 November 1946 in Oberursel/Taunus; Dörner et al. (1999), Microfiche 08/02048–62, at 2048.
- 9. Fleck's testimony from 3 February 1958, (O.3/650) Yad Vashem Archive, Jerusalem.
- 10. Bayle (1950) cited the French affidavit of Balachowsky (pp. 1162-372; see fn. 6).
- 11. He might have heard some rumours about Balachowsky's hostile attitude in 1946. See letter of Walter Jellinek to Fleck from 27 October 1946, and Schnelle's interview with Jellinek both in FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich. Jellinek was one of Fleck's closest friends in Buchenwald. Kogon called him 'Willi', but his true name was Walter. See documents of the Fleck Exhibition at Max Planck Institute for the History of Science, Berlin, 2002.
- 12. 'W sprawie Buchenwaldzkiej. Komentarz do ksiazki F. Bayle, Croix Gammée contre caducée [On the Buchenwald Affair. A Comment on F. Bayle's book Swastika Against Aesculapian Staff]', Central Medical Library, Warsaw, collections of Stanisław Konopka. This document was first mentioned in Thomas Schnelle's biography of Fleck of 1986. A German translation of this text was made for the Fleck exhibition at the Max Planck Institute for the History of Science, Berlin, 2002.

- 13. All the prisoners of Block 50, with the exception of Balachowsky, attested that Fleck was respected by other prisoners (testimonies of Waitz, Kogon, Jellinek, see FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich); similar testimonies exist for Fleck's behaviour as a prisoner in Auschwitz (see testimony from Anna Szeemann, Adelaide Hautval, FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich). Moreover, Hedfors' claim (p. 269) that there is no indication that Fleck was aware of the clandestine activities in Block 50 is contradicted by testimonies from Kogon at the Nuremberg Medical Trial, by Thomas Schnelle's interviews with Eugen Kogon and Walter Jellinek (FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich) and by Fleck's testimony at Yad Vashem Archive.
- Waitz, Robert: Attestation [Entlastungszeugnis für Ludwik Fleck], Strasbourg, undated,
 FD Thomas Schnelle, Ludwik Fleck Zentrum/Archiv für Zeitgeschichte, ETH Zürich.
- 15. Buchenwald Diary, Balachowsky's papers, BAL/1, Pasteur Institute Archives.
- 16. Notes from Buchenwald, Balachowsky's papers, BAL/1, Pasteur Institute Archive.
- Fleck to Ludwik Hirszfeld, 22 February 1948. Polish Academy of Science, Ludwik Hirszfeld's papers, Document no. III-157/104.
- 18. Ludwik Fleck, 'Relacja z pobytu w obozie koncentracyjnym Buchenwald [An Account of a Stay in the Concentration Camp Buchenwald]', Jewish Historical Institute, Warsaw, Testimonies of surviving Jews by the Jewish community in Poland, Document 301/1139.
- 19. The number of killed prisoners reported by Fleck was probably a rough estimate. In his testimony to the International Military Tribunal (IMT), also known as The Trial against German Major War Criminals at Nuremberg of 29 January 1946, Balachowsky mentioned 600 victims killed by 'cultivating' the rickettsiae in humans (so called *Passagenpersonen*) and additional victims of vaccine tests. Balachowsky's testimony is reproduced in *The Trial against German Major War Criminals* 1947: 248–61).
- 20. Balachowsky's testimony in the Nuremberg trial confirms that René Morat performed the Weil–Felix test. Einführung des Anklagebeweisstücks Nr. 291: Affidavit von Alfred Balachowsky vom 15.5.1946 am 19. Verhandlungstag am 9.1.1947, Mikrofiche Abt. 02/01362–72. Der Nürnberger Ärzteprozess (see fn. 6).
- Balachowsky's testimony to the International Military Tribunal at Nuremberg of 29 January 1946 (see fn. 19).

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