Einstein

for Anyone: A Quick Read

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for Alexis

Alexis loves gravity:
Perched in chair on high,
She laughs gleefully,
Droppin' all that's nigh.

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III. Race

In my last years of teaching, when I talked about Einstein in my classes, I was surprised how often a student would approach with the remark: "I didn't know that Einstein was Jewish." I was tempted to retort (but I did not): "And the Pope is Catholic." What I learned from the students' remark is that things some of us now take for granted are not so in the younger generation. All the more reason to write this book, I suppose. Moreover, this snooty remark by me (even if I did not say it) would be off-the-mark, anyway.

For the historian, Einstein's Jewish identity is a moving target. He waffled back and forth is his preteen years, and he didn't settle into a relatively stable identity until he was into his 40s. There is also some debate among those writing on this topic as to his allegiance to Judaism at different times in his life.

As to the title of this chapter: just as the word "love" had a dual meaning in Chapter **II**, so the word "race" has more than one connotation. Einstein's changing attitude toward Judaism, his so-called race, was often correlated to his exposure to anti-Semitism in Germany; later, after his move to the USA, he encountered (and was distress by) the discrimination against African-Americans – another form of racism.

As outlined in the previous chapters, Einstein's first real fling with Judaism was in those preteen years when he drove his parents batty trying to impose his orthodox views on the family. As reported in his autobiography, right before he was about to be Bar Mitzvah he abruptly abandoned this belief, as he immersed himself more and more into science and math. But this return to a secular worldview was not permanent. Although some historians question this, I believe (as reported before) that his short sojourn in Prague in 1911 was crucial for a reengagement with his Jewishness. Here are some more details about that group of Jewish intellectuals, one of whom was Kafka.

First, they were diligently studying social and theological matters around Zionism and mysticism, with special interest in the ideas of the 17th century Jewish philosopher, Baruch Spinoza. On the topic of Zionism and mysticism, there is some debate as to how much this influenced

Einstein.[44] It is true that he was not strongly attracted to Zionism until after his move the Germany in 1914 and his exposure to the endemic anti-Semitism. Nonetheless, the seeds of Zionism were sown in Prague and, as will be seen, came to fruition in the 1920s; especially when he toured the USA with Chaim Weitzman of the World Zionist Organization in 1921 raising funds for the building of the Hebrew University of Jerusalem.

As for any attraction to mysticism, Einstein's scientific worldview precluded flirting with anything supernatural, psychic, or magical. In the 1920s, he referred to the vogue of various forms of spiritualism "as a symptom of confusion and weakness." Even psychoanalysis, which Sigmund Freud asserted was grounded on scientific principles, Einstein had serious misgiving about, and he refused to be analyzed by a psychiatrist, saying that he would rather remain the dark. [45] The Prague group's interest in mysticism probably meant they were reading medieval Jewish writings, such as the Zohar and Cabbala literature. In a letter, Einstein once referred the Prague group as "a small medieval-like band of unworldly people."[46] The medieval reference may be related to this literature, and as far as "unworldly" goes, it surely could apply to Einstein himself. I imagine he enjoyed the camaraderie of these marginal folks in an otherwise unpleasant Prague, despite not agreeing about all their reading materials.

If for no other reason than the group's focus on Spinoza, Einstein surely would have been drawn toward them, for he had read the 17th century Jewish philosophers' *Ethics* in the Olympia Academy days as reported by Solovine, and was fascinated by him.[47] Later in life, Einstein made it clear that Spinoza was his favorite philosopher, and often quoted him when discussing theological matters. Over his life, Einstein was influenced by a range of philosophers in both his scientific work and his theological speculations. In the course of this intellectual journey, however, most were put aside, as he developed a more mature and nuanced view on such ideas. But Spinoza's star never dimmed.[48]

By the 1920s, when he was questioned about his religious beliefs, he invariably said he believed in Spinoza's God, "who reveals himself in the harmony of all that exists, but not in a God who concerns himself with the fate and actions of human beings."[49] Spinoza was excommunicated from his Jewish community in Holland for such ideas, which were, in part, seen as pantheistic; that is, the idea that God is identical to the universe. In traditional religion, God transcends (or lies beyond) all that is; therefore, pantheism was deemed as another form of atheism. (In contrast, atheists

view pantheism as just another form of theism, or a belief in God.) That Spinoza was therefore an outcast surely was another factor in Einstein's attraction to him.

Accordingly, there were critiques leveled against Einstein by theists accusing him of being a pantheist. In one sense, he was not, for when he said that God "reveals himself," he seemed to imply a transcendent God. Here is how he put it: "I am not an atheist. I do not know if I can define myself as a pantheist. The problem is too vast for our limited minds." [50] Perhaps the simplest and most direct way he expressed his belief comes across in this story. In 1952, in his office in Princeton during a visit by a Jewish student from Yeshiva University, he was asked if he believed in God. Einstein's response began with a waving of his hand and pointing toward the window, which looked out onto a pastoral scene: "All that is not an accident," he said. [51] 'Nuff said?

The 1914 move back to Germany immersed Einstein into the social and intellectual life of Berlin. As seen in Chapter **II**, the idea of bringing him to Berlin was initiated by Walther Nernst, and he and Planck made the trip to meet Einstein in Zürich. What was not mentioned there was that the physical chemist, Fritz Haber, who was Director of the Institute for Chemistry in Berlin, played a key role by meeting with the Minister of Education with the proposal to create the post for Einstein in Berlin. Haber had met Einstein in 1911 at a scientific conference and struck up a friendship. Ten years older than Einstein, Haber was born Jewish but converted to Lutheranism at age 24 in order to fit into German society and evidently to avoid the obstacles in employment for most Jews. For him this move was also coupled with a strong sense of German patriotism that was common among Jews who felt they were part of the German nation.

Going back to the 19th century, such conversions were rare but not uncommon among German Jews, especially those whose talents were otherwise thwarted by latent anti-Semitism in society. The conversion, however, was not always a ticket to acceptance. As Haber, early in his career, once wrote to a colleague, "It is very difficult for me to get a chair anywhere. … Jews or baptized Jews are not wanted in the major positions."[52] Nonetheless, as Jews were gradually acculturated into some pockets of German intellectual and social life, they often felt they had more in common with their Christian acquaintances than with Orthodox Jews. This was especially true when there was an influx of Eastern European Jews from the Shtetls (Jewish ghettos) in the 1920s.

KWIK, and importantly, Einstein never even considered the option of conversion, despite his ambivalence with Judaism at different times in his life. The idea, I believe, would have been anathema to his attitude toward authority. He also abhorred many aspects of Germanic culture; the zealous militarism is an obvious one. But also the male rituals of dueling and excessive drinking. [53] Recall that in Aarau, Einstein the teetotaler was reading Kant while his fellow students were consuming beer. In an essay published in 1934 he spoke of a baptized Jew of present and past as a "pathetic creature." [54] Did he have his friend Haber in mind? There is no evidence that Haber ever discussed his conversion with Einstein. Haber, interestingly, despite his conversion, had almost exclusively Jewish friends. [55]

As a scientist, Haber went on to receive the Noble Prize for Chemistry in 1918 for his synthesis of ammonia from nitrogen and hydrogen, a discovery that revolutionized the production of fertilizer, making high yields in agriculture throughout the world possible. The other application was to make explosives.

When the Einsteins moved to Berlin, they struck-up a friendship with Haber and his wife, Clara, who had also converted. As Albert and Mileva's marriage unraveled, the Habers were in the middle, negotiating for both sides, and they continued mediating after Mileva moved back to Zürich. Then when the war broke-out, despite their friendship, the fundamental differences between Einstein and Haber came to the fore. Einstein viewed the war enterprise as mass madness, and did not sign the patriotic document supporting Germany's invasion of Belgium. As seen in Chapter **II**, he signed instead a counter-manifesto, and began working with the pacifists. Haber, conversely, signed the official one, along with Planck, Nernst, and 90 other intellectuals.

With patriotic verve, Haber put his full-time effort into the war. Little did he know that as early as August 24, 1914 his friend Einstein wrote in a letter that "the best talent is being forced into this senseless butchery and henchman's service."[56] Haber eventually became the chief war scientist, directing work in explosives and was instrumental in the development of chlorine and other poisonous gases used in the war (think of mustard gas). His work in fertilizers displayed a benevolent side of science, but this chemical warfare exposed a malevolence goal – an endeavour that Haber's wife, Clara, could not live with. In 1915, she shot and killed herself with his pistol. This was the first family tragedy emanating from his work on poisonous gases. Later, as an even more egregious consequence, Haber's

Institute went on to develop, as a pesticide, Zyklon B, which in the 1940s was used in the Nazi gas chambers to kill some of Haber's friends and relatives, along with millions of others.

World War I unleashed the latent anti-Semitism in German society. It came out of the shadows as Socialists and Jews were blamed by right-wing Nationalists for Germany's defeat. No longer could many patriotic German Jews believe that anti-Semitism was a mere anomaly that would go away with more assimilation. Those who were never fully comfortable with the contradiction between their otherness and their overt patriotism often turned toward Zionism. [57] Einstein, as seen, was exposed to the Zionist ideal during his Prague sojourn; and so, in Berlin, he again befriended a group of Jewish intellectuals devoted to the cause of Zionism. During and especially after the war, Einstein's identification with Judaism grew as he increasingly referred to himself as being a member of "the tribe."

The growing and explicit racism in Germany was directed increasingly toward Einstein when he became famous following the Royal Society of London's experiment during the solar eclipse of 1919, initiated by Arthur S. Eddington, which proved, as Einstein had predicted, that light from a star is bent by the Sun. A Jew getting so much attention and adulation grated on the bigots, some of whom were his fellow scientists. Surely this behavior was most troubling for him, since he expected more objectivity from them. Of course, there were legitimate questions to be raised about the theory of relativity, but many of the attacks were simply racism masquerading as a critique of relativity. The vitriolic condemnations of relativity in 1920 were the start. There were two episodes.

The first began in the summer at an anti-relativity rally in the auditorium of the Berlin Philharmonic organised by a right-wing political party. Einstein was accused of plagiarism and propaganda. The former was a red herring, since all scientific work is based on previous work. Real plagiarism would require copying entire sections from other writings, and this Einstein never did. His work was, in part, original in the way he put together previous ideas. The so-called carp about propaganda was bizarre and exposed the blatant anti-Semitism of the whole rally. Supposedly the theory of relativity was being disseminated by mainly newspapers and publications associated with Jews. Whether true or not, the topic was irrelevant to the veracity of the theory. This irrelevant attack showed how desperate the group was to cook-up a critique. The real sinister point of this denigration of the theory was to create an etymological dichotomy

between supposedly two types of science: German and Jewish. The so-called German science would later morph into what was called Aryan science, as the pseudo-scientific ideology about an Aryan race grew deeper roots, especially after the Nazis took power in 1933.

The wrangle over relativity was more focused in the second episode in the fall of 1920. It came during a scientific society meeting, where a debate was arranged between Einstein and Philipp Lenard. Lenard's name has come-up before, since Mileva once attended a lecture by him and Einstein used Lenard's work on the photoelectric effect for his famous paper on light quanta. From the reports of the debate, we know that philosophical issues were at the heart of the theory. [58] However, what is important for this chapter is that the debate later became framed in the combative rhetoric of two conflicting categories of physics: German Physics (Lenard) vs. Jewish Physics (Einstein), as if there is an ethnic (really racist) basis to the way science is done. [59] The sinister side of this was made manifest in subsequent years when Lenard, along with Johannes Stark, joined the Nazi party and they attacked Einstein as expounding a Jewish Physics. Lenard put forth a warning about an "alien spirit …which appears everywhere as a dark force and which leaves its mark so clearly on everything that belongs to the 'theory of relativity'." [60] For such rhetorical gibberish, Hitler would give Lenard the highfalutin post of Chief of Aryan Physics. [61]

As the drama over relativity was playing-out in the 1920s, Einstein took up another cause – the plight of Eastern European Jews. Since the late-19th century, waves of Jews fled pogroms in Russia and passed through Poland to arrive in Germany. During World War I they were recruited to work in factories for the war effort under appalling conditions. After the War some continued onward to the USA or to Palestine. Those who stayed were targets of anti-Semitism, for they were poor, usually working as peddlers, and seen as "parasites" in German society, or worse as "vermin" – a term portending the racism of the Nazis. Eastern Jews were also often avoided by the "western" German Jews, who had integrated into German bourgeois culture and had a hard time identifying with these ghetto-living, Yiddish-speaking, skullcap-wearing co-religious folk. German authorities sometimes went so far as to put hundreds of Eastern Jews into internment camps, a move that foreshowed the concentration camps of the Nazis.

Einstein, who invariably took the side of the underdog, could not quietly watch this blatant act of discrimination of a minority, especially members of his tribe. Using his new status as a celebrity with a public

voice, he wrote in support of the Eastern European Jews, and spoke-out repeatedly against the rise of anti-Semitism. He challenged the German government to stop this discrimination by reminding them that during the War the Germans were accused by the enemy of acting like barbarians (which they really did in Belgium), and so in their treatment of Jews they were reinforcing their own stereotype. He weaved an image of these Jewish peddlers as not hordes of beggars but rather as "a wealth of the finest human talents and productive energy" (which, in the long run, turned out to be true, at least for those who were not murdered by the Nazis). Einstein then put this idea into practice by helping to organize special lectures for Eastern Jewish students at the University, who otherwise were not admitted. [62]

This involvement in the plight of Eastern Jews was another element in his reengagement with his Jewish identity at this time. Coupled to this was his increasing involvement in one aspect of the Zionist movement – something during the Prague years he only viewed from a distance – namely, the quest to create a Hebrew University in Jerusalem. In fact, he became downright zealous about it. As he wrote, "Many talented Jews are lost to culture because the way to learning is barred to them. It will be one of the foremost aims of the university in Jerusalem to alleviate this misery." [63] The only barrier would be a lack of talent, not ethnic origins. KWIK, he probably had Eastern European Jews in mind when he wrote this.

The idea for such an institution went back to the late-19th century, and by the 1913 meeting of the World Zionist Congress it was decided that a University whose language of instruction would be Hebrew should be built. In 1918 the organization obtained permission from the British Commonwealth to lay a cornerstone on Mount Scopus in Jerusalem, and they did so in the summer, on July 24th. Einstein thus envisaged a place where Jews from anywhere in the world, initially from Eastern Europe, could study freely, with admittance based on merit alone.

In 1921, Einstein made his first trip to the USA on a tour in support of the Zionist movement, with the specific goal of raising funds for the Hebrew University. Chaim Weizmann, chemist and president of the World Zionist Organization, prodded him to do so. Weizmann wanted Einstein to join him on this tour, since his celebrity status surely would help to draw crowds and hopefully increase donations. Einstein was not naïve about all this. He wrote: "I am not eager to go to America but am doing it solely in the interest of the Zionists, who must beg for dollars to build

educational institutions in Jerusalem, and for whom I act as high priest and decoy … I am really doing whatever I can for the brothers of my race who are treated so badly everywhere." [64]

The 1921 tour was from April 2nd to May 30th, and he was often greeted at stops with much fanfare and incessant questions from reporters. Albert Einstein, now the eponym *Einstein,* was learning to adapt to the role of celebrity and the accompanying lack of any privacy. All was not just fundraising, however; he lectured at several universities on relativity. At Princeton University he gave four lectures that were published as the book *The Meaning of Relativity,* a work that is still in print. [65] Of course, he did not know that starting in 1933, he would spend the rest of his life in the town of Princeton, New Jersey, not far from the University. By the end of the 1921 trip Einstein was deeply devoted to the cause of creating a Hebrew University in Jerusalem.

As noted in Chapter **II**, in 1920, the tension and distress over the attacks on Einstein were, at least partially, responsible for Elsa's ailments at this time, and led to the couple's serious thoughts of leaving Germany. Yet they stayed. They stayed despite, for example, in June 1921, after Einstein returned from this USA tour, there appeared an article in a Nationalist newspaper calling for his outright murder. Events like this spurred him further into the Zionist fold. Later in the month, he delivered a speech to a Zionist meeting in Berlin, in which he concluded:

> If we could succeed in establishing a center for the Jewish people in Palestine [then] we will have again an intellectual center and the feeling of isolation will leave us, despite the fact that most of us are scattered in all countries. This is the great liberating effect that I expect from the rebuilding of Palestine. [66]

It was followed by much applause.

In the spring of 1922 Einstein made a trip to Paris for a series of talks and seminars on relativity. When first approached by French scientists he rejected the offer, due to the lingering animosity between the two countries since the War. Johannes Stark, for example, saw it as a capitulation with the lingering enemy.[67] But Einstein was friends with Walther Rathenau, Germany's foreign minister, who saw the trip as a positive effort to mend the rift. Rathenau was, like Einstein, a Jew who was

"internationally minded," as Einstein once put it. But Rathenau was also very much unlike Einstein, for (again quoting him) Rathenau "was very much in love with Prussianism, … and its military forms." [68] Einstein was probably attracted to Rathenau because of his intelligence and especially his wit and the subtle ways he could make disparaging remarks about social mores. Einstein, in the end, agreed to go to Paris. A French delegation met his train at the Belgium border to escort him to Paris; they were concerned about security, for there were threats made by some French ultra-nationalists opposed to a German visitor. As well, some French scientists boycotted a reception.

The trip, however, went off without any serious incident, and after he returned there was a German-French friendship rally at the Reichstag (the German Parliament) in June, where Einstein was met with much applause. But the hoopla was short-lived. Two weeks later Rathenau's car was riddled with submachine-gun bullets and a hand grenade was thrown in to make sure he died. This cold-blooded murder of his friend both angered and rattled Einstein. He contemplated being the next Jew assassinated by right-wing thugs, as the death threats resumed. In a letter to Solovine he said that he cancelled all his lectures and was officially absent from his office, whereas he was "actually always here all the time."[69]

He and Elsa again seriously considered permanently leaving Germany, but instead went on a trip. In October, they commenced a five-month tour to the Far East. Being a world-famous celebrity, Einstein was taking advantage of an abundance of travel invitations and the opportunity to leave the turmoil of Europe for periods of peace elsewhere. On their return to Europe they passed through the Suez canal and made a scheduled stop in Palestine for a two-week tour. They visited most of the landmarks of the region (such as the Dead Sea and the remaining Temple Wall in Jerusalem) but he was particularly interested in the kibbutz movement – the Jewish collective farms based on the communist ideal, which feed right into his flirtation with various segments of socialism.

He was emotionally affected more directly and deeply in this leg of their voyage than anywhere else, mainly because at this stage of his life, with the exposure to anti-Semitism in Germany, he was probing deeper into his Jewish roots. Yet it was a completely different Jewish world he met in Palestine, a far cry from the life-style of both the European professionals and the Eastern peddlers. As he wrote in a letter: "The brothers of our race in Palestine charmed me as farmers, as workers, and

as citizens."[70] At one point in the tour, among the adulations of a large group of school children and teachers, he was quoted as saying it was "the greatest day" of his life. [71]

The main reason for the stop in Palestine was for the inauguration of the Hebrew University on February 7, 1923. Einstein was asked to deliver the inaugural address. He did so in a temporary building (in a hall of the British police academy on Mount Scopus in Jerusalem), near where the cornerstone was laid in 1918. He began his speech with an arduous introduction in Hebrew, so that the first words spoken in the nascent university, indeed, would be in that ancient language. He continued in French, and went on for 90 minutes to deliver the first lecture at what eventually became the Hebrew University of Jerusalem. The topic was an outline of the theory of relativity.[72] Two years later the University was officially and formally opened in an historic ceremony on April 1, 1925. Einstein was not present, but not unexpectedly, when the first Board of Trustees for the University was set-up, he was made a member. [73]

As seen, Einstein waffled during his early life with his Jewish roots.[74] It was in the early 1920s, perhaps as a result of the Palestine visit, that he settled into a comfortable place with his Judaism. He identified as a Jew culturally and ethnically, but from a non-religious (especially non-Orthodox) viewpoint. On the Palestine tour, for example, at what remained of the ancient Temple Wall destroyed by the Romans in 70CE, where he saw Orthodox Jews praying aloud, he wrote in his dairy that these "dull-witted clansmen of our tribe" were a "pathetic sight of men with a past but without a future."[75] This was, of course, in contrast to the Jews on the kibbutz.

In addition to his embracement of Spinoza's theology, he eventually developed his own socio-ethical creed, succinctly put in this sentence in 1934:

> The pursuit of knowledge for its own sake, an almost fanatical love of justice, and the desire for personal independence – these are the features of the Jewish tradition which make me thank my lucky stars that I belong to it. [76]

Einstein had made peace with his Jewishness. But he was yet to reconcile his internationalism and pacifism with the militarism and the belligerent anti-Semitism in the country in which he lived.

Upon returning to Germany in 1923, the intimidations resumed. As mentioned before, during an academic sojourn in Leiden, he stayed for six weeks because of death threats in Berlin. [77] For most of the 1920s, the trips outside of Germany assuaged the omnipresent anti-Semitism he was forced to endure. In addition to the Far East tour, there were lectures in South America, the United Kingdom, and the USA. In the USA they spent three winters in California from 1930 to 1933, the final one during January 1933 when Hitler and his henchmen came to power. As a result, the Einsteins finally made the inevitable decision to live in the USA. How many death threats can a person tolerate? They never returned to Germany.

Upon assuming power over the German government, the Nazis began enforcing their racist laws. By the spring of 1933, there was a very significant decrease in professors at German universities. The numbers are mind-numbing: 10% of all professors lost their positions because they had "Jewish blood"; this was 20% of mathematicians, and 26% of physicists. It was the start of probably the greatest brain-drain in modern history. John von Neumann, a famous Hungarian-American mathematician who was studying in Germany at the time, wrote in the summer of 1933 that this "German madness…will ruin German science for a generation – at least …" It came true: by the spring of 1936 more than 1600 scholars (1/3 scientists) left German institutions, going to the USA, UK, Canada, and elsewhere. The long-term effect can be measured, in part, by comparing Nobel Prizes in science before and after World War II. The Prize started in 1901, and by the War, the score was: Germany 35, USA 15. After the War, through 1959, it was: Germany 8, USA 42. Many of the 42 were, without doubt, transplanted refugees.[78] Calling it madness is not strong enough. Einstein called the rise of Hitler "mass psychosis." [79] Kicking out the smart people and giving the country over to hooligans is sheer mass stupidity, too.

In October, 1933 the Einsteins moved to Princeton, New Jersey, where he took up his post at the new Institute for Advanced Study. Otherwise, if they had remained almost anywhere in Europe, Einstein (and probably Elsa, too) most surely would have been assassinated or murdered sometime during the Third Reich's reign of terror. It is a horrendous fact that the attempted extermination of European Jews by Hitler was not

confined to Germany itself. What dictator ever extended the goal of exterminating an ethnic group beyond the borders of his own state? [80]

Einstein, from his new Princeton, USA vantage point, revised his pacifist position. The German threat was too great, and a military force opposed to Nazi aggression was necessary. His pacifist friends, having lost such a powerful voice, were aghast and angry, but he made it clear that this was an exception – for no principle is absolute (in both science and ethics). As he later wrote, this "exception" was "necessary," especially with such a "hostile power" that endeavoured the mass extermination of his "own group." [81]

Haber's final story is tragic. At the end of World War I, Haber was a war-hero, with a long and distinguished record of service. That record was entirely erased from German history books when Hitler came to power in 1933, as if Haber never even existed. All that exuberant patriotism, the conversion to Christianity, the assimilation into German society, the accolades – it all came to naught in the warped minds of the Nazis. They did not kill Haber directly, as they would have eventually. Instead, he fled Germany but died of a heart attack in Basel, Switzerland a year after Hitler took power. His eventual disillusionment with Germany was expressed, rather mildly, in a letter penned shortly before his death: "Lucky the person who did not grow up in the German world..." [82] His son, Hermann, found refuge in the USA, but committed suicide, as his mother had, in 1947. Shortly thereafter, Hermann's oldest daughter did the same.

Searching for a glimmer of light in this otherwise wretched story? After Haber's death in 1934, Planck attempted to keep Haber's memory alive by courageously holding a memorial to him in Berlin that 500 people attended. It was a rare act of defiance by a scientific community that otherwise easily buckled under the bullying of the Nazis.

At this juncture in my story it is at once enlightening and depressing to bring this topic up to the present with the following facts. If you search the Internet for information on Einstein, you will, more often than you may wish, come upon a website that initially looks as if it is a scholarly discussion of a topic related to him, but find, on deeper reading, that you have been lured into an anti-Semitic diatribe castigating Einstein and Jews. It is disconcerting how frequently this happens, as one innocently searches the Web.

I will not give credence to this evil by citing any such site, except to mention one related website, for which there is a significant audience. It is

put out by a group of right-wing, ultra-conservative Americans, who believe that Wikipedia is a liberal-biased source of left-wing information. Called Conservapedia, it is an ideologically based encyclopaedia that openly attacks Darwin and evolution (no surprised here), and adds Einstein and relativity to its list of iniquities. [83] The articles related to the latter pair echo the anti-Semitic Aryan attacks of the Nazi era, denying any originality to all of Einstein's work, and challenging the empirical basis of the theory – all of which contradicts volumes of scholarship and reams of experimental data. The articles are rubbish.

Decades of 20th century scholarship on Einstein have shown his indebtedness to former and contemporary scientists, while revealing the originality and genius of what he did. This was realized by the second decade of the last century. Consider the following document. In July 1913, Planck, Nernst, and two other physicists signed a letter of recommendation to the Prussian Academy of Science supporting Einstein for the job in Berlin. In it they spoke of his "worldwide reputation" around his relativity theory that presented a new "conception of time." He also contributed to the quantum theory, the kinetic theory of matter, atomism, and thermodynamics. They pointed-out that he was involved in almost every important physics problem of his day, revealing not only his depth, but his breadth, as well. [84] If Einstein had been stealing ideas from others around him, at some point these fellow scientists would have known. Nonetheless, the myth of plagiarism persists.

The unsettling nature of all this prompts me to quote Philipp Lenard (of all people!) in an entirely different context, and speak of an "alien spirit, which appears everywhere as a dark force and which leaves its mark" – a stain that shamefully just will not go away.

Einstein's experience in Germany shaped his outlook on matters of race throughout his life. When moving to the USA he was confronted with another form of bigotry and intolerance in the way African-Americans were treated. He became visibly involved in the civil right movement, using his celebrity status in support of their cause.

This involvement began in 1932 during his last trip to California, when he attended a memorial service in a "negro" church (a non-derogatory term at the time). The service was honoring a Jewish philanthropist who was active in supporting education for African-Americans. Einstein delivered an address calling for racial tolerance and world peace. [85]

Later that year he received a letter from the important African-American, W.E.B. Du Bois, author, activist, and co-founder of the NAACP (National Association for the Advancement of Colored People). A prolific scholar, Du Bois became aware of Einstein's viewpoint on race and so he asked for a word from the famous scientist. Einstein replied with a brief statement on the tragic and evil nature of the minority status of the "American Negroes," which was then published in *The Crisis,* the monthly magazine edited by Du Bois. Einstein went on to befriend openly other black Americans, such as the opera diva, Marian Anderson, the popular singer and actor, Paul Robeson, and others. With Robeson, he co-chaired the "American Crusade to End Lynching," an organization that spoke-out against the nefarious vigilante hangings of black Americans, mainly in the South. For this work, the organization was investigated by the FBI as a probable Communist front.

Einstein's general position on this topic may be found in an essay published in January, 1946, "The Negro Question." [86] He began by pointing to his immigrant status in the USA, suggesting that it could be used against him for making critical comments about his country of choice. Yet he believed that this status, in reality, gave him added insight into seeing things that others might not, such as taking prejudicial behavior for granted. Therefore, despite the "democratic trait among the people" of America, where "everyone feels assured of his worth as an individual," Einstein noted "a somber point in the social outlook of Americans": namely, the injustices against non-whites, "particularly towards Negroes, … a situation," he wrote, that "pains me." Speaking to the whites of his adopted country he candidly stated: "Your ancestors dragged these black people from their homes by force" and "ruthlessly suppressed and exploited" them, such that they were "degraded into slavery." The legacy of this still remained in the "deeply entrenched evil" of racism in America. As always, Einstein did not mince his words.

After he moved to the USA Einstein was reluctant to accept honorary degrees. He was tired of the tedium of the pomp and pageantry of it all. But in May, 1946 he made the rare exception, when he accepted an invitation from Lincoln University, an all-black college, the first such institution in the country, which was about 60 miles from Princeton in the south-east corner of Pennsylvania. He wanted to show by his action, not just his pen, his support for the civil rights movement.

He was reported to have said at the ceremony that segregation "is a disease of white people," and he added: "I do not intend to be quiet about

it" [87] Much of this echoed his essay from January of the same year. Sadly, there is no copy of his speech to the university, since the event was barely mentioned in the white press (except for a minor note in the *New York Times*). What is known, as quoted above, was gleaned from the black press, where it was widely reported. As seen, the role of race in the socio-political world he lived in, both in Europe and the USA, had a profound impact on his personal life.

The next major event affecting Einstein's life was the creation of the state of Israel in 1948, coming after the almost impossible comprehension of the horror of the Holocaust. The long struggle for the realization of Zionism was made real. Einstein was elated, but ambivalent. When he was asked to be the second president of Israel (a ceremonial job), he declined.[88]

As a teenager he had fled the militaristic nationalism of the German state and renounced his citizenship. He therefore had difficulty living in such an environment when he returned in 1914 and lived through the excessive patriotism of his colleagues and some friends during and after World War I. As seen, that experience tainted his flirtation with Zionism. He wrote in 1929 that his idea of Jewish nationalism was "a nationalism whose aim is not power but dignity and health. If we did not have to live among intolerant, narrow-minded, and violent people, I should be the first to throw over all nationalism in favor of universal humanity." [89]

During his visit to Palestine in1923, he saw the best element of Jewish society in the working class, what is called Labor Zionism. As he put it in 1932: "This working class alone is the only force which is capable to create healthy relations to the Arab people, which is the most important task of Zionism." [90] His viewpoint on the Palestine problem, then and throughout his life, was grounded on a nuanced attempt at balancing the rights of both Jews and Arabs to the same relatively-small parcel of land. He put it strongly in 1938: "I should much rather see a reasonable agreement with the Arabs on the basis of living together in peace than the creation of a Jewish state…" [91]

He envisioned Israel as a cultural and spiritual center of Judaism, not a political entity. Nonetheless, this idyllic arrangement was not to be. Following World War II the push for a Jewish state was amplified, and he conceded in 1945: "I dislike nationalism very much – even Jewish nationalism. But our own national solidarity is forced upon us by a hostile world." [92] Einstein could be stubborn on many things, but he also was not dogmatic, and was willing to modify his position if it was deemed

reasonable by him. Just as his strong commitment to pacifism during World War I was severely revised with the rise of Nazism, he felt that the nationalism around the state of Israel was an exception to the rule.

This fact provides a segue into the next chapter, for this non-dogmatic, quasi-flexibility was also applied to his science. He occasionally conceded that if future experiments would falsify his theory of relativity, then the whole edifice should rightly come tumbling down. In short, he accepted the possibility (remote, he thought, I assume) that his entire life's work in science could be all for naught.

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