# Einstein sticks out his tongue

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#### ABSTRACT

This article focuses on the second part of Albert Einstein's life in the USA after 1933. It is the attempt of the author to approach the life and achievements of Albert Einstein from a different perspective, as well as the encouragement for the reader to form his or her opinion on the matter. Said publication is also the summary of the entire, three-part series of publications relating to Albert Einstein.

# **Introductory remarks**

Within the framework of the initial paper, the author focused on the exceptional circumstances connected with the publication of the *"Zur Elektrodynamik bewegter Körper*" work signed by Albert Einstein and published in Annalen der Physik in 1905 [1] which became the foundation of a new physical theory known as the Special Theory of Relativity or in short - STR [2]. In the consecutive paper, the unusual course of events connected with the publication of works of Albert Einstein and David Hilbert in autumn 1915, which turned out to be the basis for the General Theory of Relativity or in short – GTR, was discussed in detail [3]. The protagonist of said publication was predominantly David Hilbert, a great mathematician and a remarkably problematic person. It is the time to go back to the person being the major focus of the entire set of articles, namely: Albert Einstein.

Many years had passed since the events of 1915. After Adolf Hitler and his party, the National Socialist German Workers' Party (Nationalsozialistische Deutsche Arbeiterpartei, NSDAP) had come to power, Albert Einstein left Germany in 1933 together with his wife, secretaries, and assistants, as well as decided to emigrate to the USA. Even then, Albert Einstein was considered the most prominent scientist to have ever lived. He was treated as the greatest genius, the knowledge of whom was equal to the one of Newton, Archimedes, or Galileo. Einstein spent the rest of his days in the USA. He lived there up to the moment of his death, 18<sup>th</sup> April 1955. The scientist was adored and appreciated in the country. He was wealthy,

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popular, and safe. His authority and genius were not questioned in the slightest. He quickly became an international celebrity that was idolized by the masses similarly to famous movie stars. No scientist, especially a mathematician or a physicist, has ever reached such a fame and recognition. The most powerful people in America took into account Einstein's opinions and recommendations, including Franklin Delano Roosevelt, the 32<sup>nd</sup> president of the USA. Einstein spent the second part of his creative life in the USA. The first part was spent in Germany, whereas the second one - in America. The first part was connected with great scientific discoveries, such as STR, GTR, and explaining Brown motion, whereas the second one...was rather insignificant in nature. For almost twenty years, Einstein had failed to give the American scientific society something of true value. It is a rather difficult puzzle to solve for individuals exploring the life and thoughts of Einstein. There are many Einstein's biographies written in a hard to omit adoring tone [4, 5, 6, 7 and many more]. One will surely find it easy to find come across hastily written biographies that show Einstein as a flawless genius. It has to be said that perspective is of importance here. The world is perceived differently by a kneeling and by a standing person. Biographers dealing with Einstein's life consider it to be a pity that such a genius who had lived for so many years in America, had perfect living conditions, and no material problems to struggle with, had failed to create a truly fascinating individual work. They go as far as to write that he simply wasted the second part of his life [4]. They try to justify it by stating that he wanted to create the theory of everything, the so-called theory of great unification. It is not a surprise that he failed. He could not have succeeded back then. However, he even failed to present some promising, partial results of his examinations. If Einstein was a self-taught genius, such a fruitless scientific career in the second part of his life has to be considered a surprise. Albert Einstein had published many a work during his 20 year long stay in the USA. Some of them were truly important. As an example, one can quote the paper from 1935 focusing on the Einstein-Podolsky-Rosen paradox, or in short - the EPR paradox [8]. Many of his works, including the one touching upon the issue of the EPR paradox, were written together with his co-workers. Einstein liked to take care of younger scientists, for whom it was a honor and a real pleasure to be able to work with such an exceptional genius. It cannot be left unnoticed that Einstein's name was always the first one when it came to indicating publication authors. When it comes to the factual division of work or the authorship of individual ideas, one can only speculate.

In order to solve the mystery of A. Einstein's poor performance in America, one has to go back to his youth and his life in Germany. One has to go back to 1905, the famous golden year of Einstein. There is the need to analyze the achievements and inventions of the scientist

in an objective manner, especially by dividing facts from hagiographic propaganda which is so typical for many biographers. Albert Einstein surely was not a (Catholic) saint. What is more, both his life and achievements were far from the ones of (Catholic) saints. Albert Einstein published over 300 scientific works and 150 other publications, touching upon – among others - philosophy. The most important date in his scientific career was 1905, the so-called *Annus Mirabilis* of Albert Einstein.

### **Annus Mirabilis**

In 1905, which was the well-known Annus Mirabilis (the Miracle Year), at the age of 26, Einstein published five important scientific works, including his doctoral dissertation. The paper entitled "Zur Elektrodynamik bewegter Körper" ("On the electrodynamics of moving bodies) was discussed in detail in the previous work of the author [2]. Let us now focus on other ones, including the paper on Brown movement [9]. It has been agreed that Albert Einstein (1905) and a Polish physicist, Marian Smoluchowski (1906), explained the nature of Brown movement independently. Brown movement is of exceptional importance, for it allows to prove the existence of atoms and molecules. It is impossible to see such particles, but Brown movement can be observed with the naked eye, as well as with the help of a magnifying glass or a simple microscope. The work published by Einstein reached the general public one year earlier, so it seems to be obvious that the scientist in question had been quicker than Smoluchowski. However the latter had worked on explaining Brown movement for many years before publishing his work. In 1904, in a certain Swiss magazine, M. Smoluchowski published the foundations of his idea. The fully-fledged theory was presented a year after Einstein's publication. Nevertheless, it is known that Einstein lived and worked in Switzerland back then have read this magazine. Could he have not read the work of Smoluchowski? It seems impossible that he had done otherwise, especially while taking into account that he had been a young, talented scientists dealing with Brown movement. However, it cannot be unequivocally proven or rejected. It has been claimed that Einstein had frequently read the aforementioned magazine, as highlighted by some biographers, but it does not mean that he had read the publication by Smoluchowski. Only Milena, the then-wife of Einstein could have said something about that, but she had not said anything about the life of her famous ex-husband till her death. One can focus only on thoughts and statements of the man of the hour, Einstein. It is a fact that a year later, in 1905, Einstein published his theory on Brown movement [9]. By taking advantage of a different mathematical approach, he reached conclusions that were

similar to Smoluchowski's ones. The author did not mention Smoluchowski or any other scientist. His work did not include any bibliography whatsoever. On many occasions, Einstein refused to have read Smoluchowski's earlier publication. He stated that he had not read any other works, had not known about other discoveries, as well as had reached all vital conclusions all by himself and that is why he had never included bibliographies in his works. It is a peculiar or amazing coincidence. M. Smoluchowski was pretty sure that Einstein was the first one to have solved the Brown movement-related puzzle and published his finding in 1906 on request of his friends. Ignorance truly is a bliss!

Learning the truth is difficult, very difficult even. It is a well-known fact for everyone dealing with science or nature observation. Nature guards its secrets skillfully. However, it does not cheat, deceive, or steal. It plays fair, in contrast to people. Some scientists prefer to steal achievements of others and consider the successes of others to be their own. While being surrounded by such people, even the most prominent scholars are like simple-minded and naïve children who can easily be deceived. It was the case not only with M. Smoluchowski, but also with D. Hilbert and H. Poincarè.

Let us study a different example. In 1905, Albert Einstein defended his doctoral thesis that was published a year later in Annalen der Physik in German (Eng. "A Determiantion of Molecular Dimension") [10]. The predominant goal of the discussed doctoral thesis was to establish Avogadro constant basing on the kinetic theory of gases, which is also called thermodynamics. Avogadro constant is the basic constant in chemistry. It is equal to 6.022 x 10<sup>23</sup> mol<sup>-1</sup>. After rounding-off and without the power, it equals 6. In mathematical and physical terms, the work of Einstein was a very solid effort. However, he proposed the Avogadro constant to be 4! Einstein was disturbed by such a difference. He could have treated it as a flaw on his image of an all-knowing genius. He returned to his calculations and analyzed them many a time looking for mistakes, but to no avail. It is not easy to spot one's own mistake – it is much easier to discover someone else's error. Finally, Einstein asked one of his colleagues to help him. The man analyzed his work and spotted the problem. In 1911, Einstein published an erratum and provided the right outcome being close to 6. He also thanked his colleague for support ("Correction to My paper: A New Determination of Molecular Dimension") [11]. It is not an uncommon thing for scientists to obtain an improper result. Then, they typically publish a corrected version of their works, the so-called erratum. There is nothing wrong about that. Everyone can make a mistake. However, Einstein simply could not leave it be. In the 20s, he published an English version of his work. His earlier scientific papers were written in German exclusively. After reading the English work only, the reader can come to a conclusion that

Einstein discovered and calculated the correct value of Avogadro constant. Interestingly enough, the English paper does not include the aforementioned erratum. "A New Determination of Molecular Dimension" has been one of the most frequently quoted papers of Albert Einstein. Chemists, biologists, and even humanists have been very keen on quoting Einstein. Once again, he became the one and only inventor, discoverer, and genius. Some people are short, some are small. It has to be said that Einstein was not short, he was of medium height.

One of the great "inventions" of Einstein was the so-called Bose-Einstein statistics. In 1924, Einstein received a work written by an unknown young Hindu physicist, Satyendr Nath Bose, which described a new statistical model. After having his paper rejected by a publishing house, Bose decided to send it directly to Einstein, hoping that the scientist would help him publish the work. Thanks to Einstein's recommendation, it happened remarkably quickly. However, Einstein also published a set of articles on the subject and proposed his own version of the new theory. Instead of Bose statistics, there is Bose-Einstein one. At least Bose's name is treated as the prominent one in this case. Bose, or rather Bose-Einstein statistics is one of the most fundamental discoveries in the field of statistical physics. The provided story clearly shows the idea that Einstein followed. He wanted to claim someone else's idea, change it a bit, and publish as his own discovery. Bose therefore joined Poincarè, Hilbert, Smoluchowski, and Minkowski.

While writing about the achievements of Albert Einstein, historians of science frequently opt for the "amazing coincidences" term [12] or propose a similar one. There are other lexical terms that can be used here as well, the most harmless one of which is plagiarism. Let us, however stick to amazing coincidences. It is truly intriguing how many coincidences of various nature were connected with the publication of "groundbreaking" works by Einstein. They happened so frequently that they could be even perceived as rather expected coincidences. They constituted a characteristic and very typical part of Einstein's work. Bose-Einstein statistics has been touched upon earlier. Among the most interesting coincidences, there were: 1) Bose – Einstein statistics, 2) Brown movement, Smoluchowski – Einstein. 3) General Theory of Relativity, Hilbert – Einstein [3], 4) Special Theory of Relativity. STR was Henri Poincarè's invention made basing on the earlier work by Hendrik Lorentz. It can be called Poincarè -Einstein coincidence. However, it is likely that the author of the "Zur Elektrodynamik bewegter Körper" [1] signed by Einstein was Herman Minkowski. If it had not been the case A. Einstein would have had to master a brand new field of psychics between May and June of 1905, as well as write a groundbreaking thesis! Such achievements are rather unusual, even for geniuses. The Special Theory of Relativity can be referred to as a double amazing coincidence Poincarè -

Einstein and/or Minkowski – Einstein [2]. In mathematical terms, the "Zur Elektrodynamik bewegter Körper" was notably different from the other works Poincarè. The author of "Zur Elektrodynamik..." obtained a result specified by H. Poincarè by using different mathematical methods [2]. On top of all that, it can be perceived as a magnificent scientific work. Albert Einstein was a very intelligent man and a scholar. He did not opt for the "Copy and Paste" method and did not copy sentences or sections of works of other scientists. The only papers where such approach can be identified were his initial works on thermodynamics [13]. What is more, computers had still not been invented then. To know a result, reach it by using a mathematically different way, and then claim to be the one and only person discovering it – that was the mode of operation of Einstein.

After an in-depth analysis, it can be stated that almost all scientific achievements of Albert Einstein were more or less the achievements of other scholars and Einstein should be considered the co-author of their works at best. It applies especially to both Special and General Theory of Relativity and to the explanation of Brown movement. However, there is one paper the author of which is undoubtedly Einstein. It was a publication from 1905 on the explanation of the photoelectric effect. A. Einstein was awarded with a Nobel Prize in Physics in 1921 for his discovery. It shows that Einstein could work independently and achieve remarkable successes if he only wanted. He was a good, even a very good physicist, but there were many more like him or even greater than him at the time. He worked a lot and he worked hard. He constantly developed, broadened his horizons, and refused to give up after achieving something. He had an exceptional scientific intuition. He knew where the most intriguing research problems were. Einstein, however, decided to follow a different, much easier path at the very beginning of his scientific career. It is symptomatic for people who value professional success more than solving a given problem. If success is the predominant goal for a person, then it is not worth working too hard. Why to work on new theories when it is easier to copy a solution? Why to go an extra mile when people provide you with ready-made solutions? In the case of Einstein colleagues, they wanted to do so and therefore they are to blame. One of definitions of intelligence states that to be intelligent is not to work hard, but to achieve a set goal with just a minimal effort. Intelligence can be used to maximize profit and/or minimize workload and costs. Albert Einstein can therefore be considered a very intelligent man.

It has to be noted that Einstein did what he was allowed to. He should not be the only one to put the blame on. If someone else pulled a trick similar to the one with the works of Sath Bose, it would be the end of his or her scientific career. Undertakings that would put a bitter end to the professional development of many people made Einstein even more popular. Einstein could do much more, was fully aware of that, and took a proper advantage of said fact. Who else would be allowed to publish articles without a proper bibliography? Albert Einstein found a perfect time and place for himself. He was the man that many had been looking for. A genius was needed. And then, there was Einstein. Albert Einstein had the appearance of an absentminded genius and was of a proper origin. He did not allow anything to stand on the way of his career, even moral principles. While approached directly, for example during meetings or interviews, Einstein was neat, direct, and witty. He was full of witticisms that were so appreciated by journalists. Einstein played the role of an absent-minded genius perfectly. The man also always knew how to behave: he acted properly during lectures, meetings with colleagues, interviews, and gatherings involving the most prominent people. He was the right person to be admired for being a genius. It should not surprise anyone, though that Albert Einstein is called the genius of all times.

# An old photo

The Nobel Prize for Einstein is a different story. He was a sure candidate to receive said prize in physics. He was nominated almost every year between 1910 and 1922, except for 1911 and 1915 [4]. It was expected or even demanded by some to award the scholar with the Nobel Prize. It was claimed that the creator of both the Special and General Theories of Relativity deserved such an acknowledgement. Every year, the Nobel Committee was highly criticized for not giving Einstein the award. He finally received it in 1921 for explaining the photoelectric effect. It was well deserved. Albert Einstein should have received a Nobel Prize in physics for his discovery. However, it has to be noted that Einstein did not receive the prize neither for the Special Theory of Relativity not for the General Theory of Relativity. The unwillingness of the Swedish Academy to award Einstein for his discoveries is justified by historians by its representatives not fully understanding the magnitude of the discovery. Other explanations that have been proposed have been the lack of empirical proof of the validity of said theories at the time and the concealed anti-Semitism of the Swedes. It is a fact that the feeling of German superiority and anti-Semitism were popular in Sweden during the second and third decades of the 20<sup>th</sup> century.

Nevertheless, the explanation for the unwillingness of the Royal Swedish Academy of Sciences to award Einstein with the Nobel Prize may be far from anti-Semitic reasons. The reason behind that could have been much simpler. The world of science, the world of physicist was a small world, especially at the beginning of the 20<sup>th</sup> century. They all knew one another, met one another during scientific conferences, told one another jokes, and shared some gossip.

Swedish scholars appreciated the exceptional nature of both the Special and General Theories of Relativity just as much as the entire world had done. Why did they refuse to award Einstein for them, then? Those were some exceptional theories and their author surely deserved some recognition. It may be that the Swedish scholars understood the importance of the theories, but did not know who their author was. Swedish professors were well-versed in the works of Poincarè, Lorentz, and even Hilbert. As they were not sure who the author was, they decided not to award **anyone**. It was only fair. The conservative and extremely rigorous scholars decided to follow their morals and did not succumb to the voice of newspapers and public opinion almost ordering them to give Einstein the Nobel Prize for either Special or General Theory of Relativity. The scholars were right for awarding Einstein with the Nobel Prize for explaining the photoelectric effect and were also acting sensibly not granting one to him for STW or OTW.

Those old, stubborn, and conservative Swedish professors did the right thing. It was never said aloud, but there were many rumors concerning Einstein. In the world of physicists, Einstein was considered to be special, but it was not only caused by scholars being envious of his popularity going far beyond the world of science. It had much more down-to-earth causes. Rumors relating to Einstein became more and more numerous every year. The situation escalated especially during the second stage of Einstein's life, when he was living in America.

When it comes to scientific conferences, the author would like to touch upon one of them. It was an event in Brussels, the so-called Fifth Solvay Conference that took place in October 1927. It has to be stated that it was one of the most prominent gatherings in the history of physics. A commemorative photo taken then can be seen below. It is such a remarkable photo. Seventeen out of 27 participants visible in the photograph were Nobel laureates. Some of them had already been awarded with the prize, whereas others would receive it in the future. A single photo presents the most important physicians of the 20<sup>th</sup> century, who were also the participants of one and the same conference. Nowadays, there are numerous scientific events which are exceptional undertakings and in which thousands of scientists participate. With such a diversity of and access to conferences, it is quite a happening when at least one Nobel laureate decides to take part in a given event. The presence of more of them is considered to be a sensation. In the case of the discussed photo, there were as many as seventeen Nobel laureates attending a single conference. Stunning. Contrary to the common belief that we are currently smarter and generally better than our ancestors, the photo in question shows that the current intellectual level and the pace of science development are much poorer than they were a hundred years ago. In the picture, one can see Erwin Schrödinger, Wolfgang Pauli, Paul Dirac, and Werner Heisenberg, as well as young and promising scholars, such as Niels Bohr and Max Born.



Group photo taken after the conference (congress) of physicists at *Institut International de Physique Solvay* in Brussels, 1927.

In the middle of the bottom row, there are the most prominent attendants of the conference. In the world of science, there is a strict hierarchy, similar to the one in the army. Second one from the left in the front row is Max Planck. Next to him sits Maria Skłodowska-Curie, the only women attending the conference and a two-time Nobel Prize winner. Further, in the middle of the first row, two most predominant figures of the congress can be identified: Albert Einstein and Hendrik Lorentz – the second one is the older man with white hair and grey beard. Hendrik Lorentz was the honorary chairman of the congress. He was appointed for such a prestigious position and granted such a honorary place among other scientists in order to honor his scientific achievements and show respect towards him. It was also a sign, a readable symbol for Albert Einstein. It is interesting that while looking closer at the picture, one may notice that Einstein

and Lorentz move away from one another as if affected by repulsive force. As it can be seen, all those "amazing coincidences" connected with the publication of "Zur Elektrodynamik bewegter Körper" were still the source of resentment and animosities even after a quarter of century. Hendrik Lorentz was the author of the publication from 1904, in which he had presented the famous transformations, but had interpreted them improperly. The importance of Lorentz transformations had become clear to Henri Poincarè, for the publication of Lorentz had helped Poincarè to formulate the STR. Many years later, Lorentz wrote to a friend that he had derived the formula by himself, but some years later, he came across the work of a different physicist who had managed to derivate them twenty years earlier [13]. Hendrik Lorentz was a very unusual scholar and person – he was honest, reliable, and straightforward. He was a complete opposite of Einstein. Albert Einstein would have never written such a thing. He was always full of himself.

The matters that should be focused on are the achievements of Albert Einstein, his impact on the science of his times, and the place he should have taken in the photo taken after the Solvaya Conference in 1927. Should he have sat in the first row and been considered the greatest genius of the 20<sup>th</sup> century that could have been equal to Newton or Archimedes? Should he have taken a different, more modest seat? Should he have sat in the second row? Maybe his place should have been at the back. What place did Einstein deserve to take? Was he a genius or rather a person cunningly taking advantage of the inventions and creations of others? It is not the aim of the author to show that Einstein could have been a scientific fraud. He was a good or even a great physicist. He had a remarkable scientific intuition. He was capable of finding and focusing on topics that later on turned out to be of exceptional importance. Nevertheless, one has to notice that the beginning of the 20<sup>th</sup> century was the period of numerous inventions in psychics, for its every field had something to be discovered. Einstein decided to go the opposite way and thanks to that he achieved an exceptional success. He was granted the most honorary place for the photo shoot. His career was an exception in the world of science. Albert Einstein was made an all-time genius at the beginning of the 30s. He quickly became a superhero of pop culture. American media showed Einstein as a wonderful genius. He was very lucky. It is important to be lucky in life, as well as in science. It can be even stated that the man in question was born with a silver spoon in his mouth. What is more, Albert Einstein knew how to take advantage of his luck. He was passionate and skillful in terms of climbing the ladder leading to professional success. It can be said for sure.

During his remarkably long life, Einstein was a German, a stateless person, a Swiss, a German, a stateless person, and finally – the citizen of the USA [4, 5, 6, 7, 8]. For the first part

of his life, he had predominantly been a German. When it had no longer been profitable, he became an American and remained the citizen of the greatest country in the world till the end of his days. Even while frequently changing his citizenship, Einstein still remained himself – a German speaking Jew. It seems that Einstein believed in an orthodox conformity. As an intelligent man and an exceptional scholar, he was always full of high-brow slogans that could be used to justify his actions. Albert Einstein could paraphrase the words of Louis XIV, the so-called Sun King, and said: I am the world. People like Einstein find it exceptionally easy to spot a shelf on which the most delicious treats are stored. It should not surprise anyone that Albert Einstein had wanted to emigrate to the USA in the 20s [4, 5, 6]. In America, he could have achieved more than in the crisis, terror, and unrest-driven Germany of the inter-war period. The fact that Adolf Hitler and his party - NSDAP came to power in 1933 made it even easier for Einstein to make a decision. Had he stayed in Germany, he would have been murdered. The so-called Nazis despised Einstein. Even if Adolf Hitler had not become the chancellor of the Third Reich, Albert Einstein would still have left the country. Einstein was perfectly suited to the USA, where the right to be happy had been included in the constitution.

The issue of Einstein's achievement is still a very controversial one. Einstein had always been himself, despite the passport he had used and the place he had stayed in. Jews are proud of him and consider Einstein to be one of their greatest geniuses. When Jews are confronted with their wrongdoings, they often say that they may not be perfect, but they still have had many geniuses, the biggest of whom was undoubtedly Einstein. They state that a nation that made it possible for Einstein to develop cannot be considered a bad nation. Was Einstein the perfect personification of Jewish spirit, blood, and character? It is the question strictly connected with modern politics. The author does not dare to answer it.

# A self-portrait

To write about a person is to create a painting by combining individual pieces, arranging a portrait from puzzle pieces. By making such an image, there may be some pieces that seem not to fit. In the case of the popular image of Albert Einstein, a scientific genius, there are seemingly numerous unfitting elements. The deeper one delves into the topic, the more such redundancies. The author touched the issue in her earlier works. Yet another element that may seem peculiar is the surprising lack of scientific performance of Einstein in America.

The second part of Einstein's life, over twenty years of living in America resulted in almost no scientific outcomes. Biographers claim that it was a pity that such a genius failed to come up with something earth-shattering while living in the USA for such a long time. They also state that Einstein simply wasted the second part of his life [4, 6, 7]. To justify him, they add that he wanted to create the theory of everything, the so-called theory of great unification, so he might have not wanted to distract himself. However, it has to be pointed out that he did not reach any significant outcomes of his works in the aforementioned field. There were of course some exceptions, such as in the case of his work on the EPR effect, which he wrote together with his colleagues [8]. If Einstein truly was a genius, such a scientific inability must have been strange. The answer to this issue seems to be exceptionally easy if one decides to forget that he was a genius. In America, Einstein was alone. David Hilbert stayed in Germany, other scholars either died, moved away, or did not want to spend time with him. It seems rather unusual that appreciated physicists did not want to work with Einstein. It was not a boycott or something of that nature. Albert Einstein was then at the peak of his career and was considered to be the most prominent living scholar. Other important scientists just avoided working with Einstein. There were some young promising physicists, but they had nothing much to offer. There was no Hilbert, Minkowski, Poincaré, Smoluchowski, or Bose... There was no one to copy a piece of work from. No one was sending him his or her groundbreaking works. It is therefore not surprising that the genius of Albert Einstein was rather dormant in America.

To incorporate other puzzle pieces into the image, one has to first forget about Einstein as a genius. Then, it is possible to create a remarkably different portrait of the scholar. It will probably be similar to the one visible while browsing some of his photos. We have o lot of Einstein's pictures. Einstein during a lecture, Einstein at the desk, Einstein smoking a pipe, Einstein participating in a party, going to opera, or meeting the president of the USA. Einstein was seen victoriously driving down the streets of New York. He also had attended meetings with many influential people of the world: politicians, entrepreneurs, and artists, to name only a few. One type of photos is very characteristic of Einstein exclusively. The author would like to discuss the self-portrait of the scientist. The one where he sticks his tongue out. Said image is very unusual and intriguing in nature. There have been many exceptional creators: painters, musicians, and artists of all kinds. Many of them have been very eccentric people. Some have even approached or even crossed the verge of insanity. Nevertheless, none of them has allowed to be photographed in such a way. Albert Einstein was a scientist, a physicist. Physicians and mathematicians tend to be much more responsible and less likely to act in an extravagant manner, especially while compared to writers or painters. The discussed photo seems to undermine that statement. What is more, Einstein allowed himself to be photographed in such a pose on many an occasion.

People seem to be moved by photos showing Einstein sticking his tongue out. They say that it was a great man who was not afraid of behaving like a child from time to time. Each and every one of us likes to laugh, have some fun, and act foolishly sometimes. It is nice for some people to perceive Einstein as a person being very self-aware, with his tongue sticking out, a head of grey hair, and not being afraid of making funny faces. It has to be pointed out that the ocean of hair on his head was not a coincidence, but rather the result of a meticulous work of many stylists and hairdressers. Einstein wanted to maintain the image of a genius, by taking a proper care especially of his hairdo and apparel [5, 6, 7]. One has to notice that children do not stick their tongue out to show that they are stupid. They show you that you are a silly person. This is the meaning behind that "innocent" and childish expression. Why did Einstein allow others to photograph him in such a way? Was it just a form of childish fun or was it the expression full of disgust and disregard for those who had been cheated and deceived? Did he want to show them that they were stupid and naïve? It would be possible in the case of a person who reached the top thanks to the achievements and inventions of others. While interpreting said photos in such a way, it would turn out that Albert Einstein had never hidden his lack of respect for people whom he had fooled.



Albert Einstein (1879-1955)

A person stealing a chocolate bar from a shop is likely to be sentenced for theft. A person who steals millions will probably end up being a respectable citizen appreciated by many with noble title given by the queen or the king. A murderer who has killed one or two people will be sentenced for death and will be imprisoned before being executed. A killer of thousands or millions will be included in history books and historians will admire his greatness. The author of a plagiarized minor work will be excluded from a given society and disrespected. Yet another one, who will decide to steal ideas from the best will be considered a genius. What conclusion can be drawn from that? It is much better to steal millions and copy from the best. That is how our world works. The career of Albert Einstein is not as exceptional as one could think.

# Instead of a summary

Who was Albert Einstein? Was he one of scientific geniuses? Was he just a person who liked to stick his tongue out? Was he an average physicist who managed to reach greatness thanks to copying the ideas of others? What was true and what was false in his case? Which image of Albert Einstein was the factual one? Each and every one of us has to answer all those questions for himself or herself. Albert Einstein is the symbol of the 20<sup>th</sup> century, the century of exceptional discoveries and brilliant scholars, as well as the century of Adolf Hitler and Joseph Stalin. It was the time of the omnipotence of communist and nationalist ideologies, mass propaganda, and mass crimes. In the age of mass paranoia, ordered chaos, death of millions of people, imprisonment, and censorship, unusual and brilliant careers, including those scientific ones were nothing out of the ordinary. The history of science is only a part of world history.

This article is not definitive in character. It has not been the aim of the author. It simply proposes a different approach that may be treated by many as a controversial one. It is to serve as food for thought. Albert Einstein was the symbol of his times: harsh, brutal, and unpredictable ones. It can be seen by analyzing both the life and scientific career of Albert Einstein, one of the most unusual people of the 20<sup>th</sup> century. There is no doubt that he was truly unique.

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