Marie Skłodowska-Curie's candidacy to the French Academy of Sciences

Marie on the Threshold

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The story of Marie Skłodowska-Curie's bid for membership in the French Academy of Sciences highlights the problems the Polish scientist faced as both a woman and a foreigner

Marie and Pierre Curie did not care much for showy ceremonies and honors, and they refused to accept any state decorations. However, awards in the field of science were something of a different story. Both of them accepted many awards for their scientific achievements (culminating in the Nobel Prize) and served as members of important scientific institutions and associations. Pierre Curie was elected into one of the most prestigious associations, the Académie des Sciences, in 1905.

The Académie des Sciences was a part of the Institute de France, which was and still is the most distinguished French scientific and cultural institution. It was established in 1795 in Paris and consists of five main academies of sciences and fine arts: the Académie Française (founded in 1635), Académie des Inscriptions et Belles Lettres (founded in 1663), Académie des Sciences (founded in 1666), Académie des Beaux-Arts (founded in 1803) and Académie des Sciences Morales et Politiques (founded in 1832).

Following Pierre's death in 1906, the physicist Désiré Gernez was elected to take his place. When Gernez passed away in 1910, the spot again became vacant and there were many scientists interested in attaining it. They included Marie Curie, urged to seek membership by her friends, but perhaps also motivated by a desire to commemorate her late husband by taking the same seat he once held. Marie Curie's preserved letters show that she approached the issue very level-headedly, analyzing her chances of success and the obstacles she might come up against.

Curie's candidacy

Under the Academy's election procedures, the section that had a vacant place would select a few candidates, one of them as its preferred choice, and then the whole Academy would vote. Marie Curie was backed by very well-known and respected scientists: Henri Poincaré, Paul Villard, and Gaston Darboux, who enthusiastically promoted her candidacy, plus Gabriel Lippmann, Paul Appell, Charles Picard, and a few others. Some of them took on the responsibility of handling on her behalf some of the courtesy visits which had to be paid to the members of the Academy. As a result of their efforts, the physics section put forward Marie Curie as its preferred candidate.

Marie Curie's most serious rival for the spot was Edouard Branly. He was a sixty-seven-year-old physicist and inventor, who had already unsuccessfully vied for membership. At first, Branly worked at the Sorbonne and then moved to the Catholic University. His biggest achievement was the discovery that wireless radio telegraphy was possible. He had invented a radio receiver, called a "coherer," which was used in 1889 by Marconi to establish the first wireless connection. When a Nobel Prize was awarded to Marconi in 1909, the Swedish Academy of Sciences overlooked Branly in their verdict. This led nationalist French circles, stressing what they felt was the Frenchman's decisive role in developing wireless telegraphy, to see a place at the Academy as a kind of compensation the scientist rightfully deserved. Moreover, Branly was also backed by the clergy, since he was a lecturer at the Catholic

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Marie Skłodowska-Curie in her room at the Radium Institute in Paris, 1921

University. These same circles were critical towards Marie Curie, as a foreigner and additionally someone religiously indifferent.

However, it seems that the most important issue was that Marie was a woman and no woman had ever been a member of the Institute de France. Traditional Frenchmen, who constituted not only the majority of French society but also the majority of scientists belonging to the Institute, were unable to accept the notion of a woman in the highest national scientific society.

Opponents and proponents

The Institute was slated to consider the gender issue at a plenary session on 4 January 1911. The Institute members arriving to the gathering were quite scornfully described by a journalist from *Le Figaro:* "I can see shriveled old men passing by, holding gray handkerchiefs, their shoulders covered with dandruff, trouser legs winding around their skinny shins [...]. There is something silly and pathetic at the same time in these men passing me, some of them are outstanding figures but most of them are simply decrepit old men." The issue on the agenda for the meeting was so sensational that twice as many members attended than was usual, and such prominent figures as the Prince of Monaco, Prince Roland Bonaparte, and Baron Edmond de Rothschild also took part. Both proponents and opponents of Marie's candidacy took the floor and both groups invoked and appealed to existing traditions, with her proponents also stress-

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Marie Skłodowska-Curie in 1903, the year when she became the first woman in history to gain a doctorate in physics and, together with P. Curie and H. Becquerel, she received the Nobel Prize in physics for the discovery of natural radioactivity

ing procedural issues. Henri Poincaré, Paul Appell, and Charles Picard pointed out that plenary voting on matters pertaining to the individual academies would undercut their autonomy. Many members of the Institute backed their stand and the resolution that was passed on the issue, urging that the "longstanding tradition" of the Institute should be honored, was not binding for the individual academies even though it was passed by a majority of votes.

Somewhat earlier, probably to try to bolster Curie's position, the minister of education, Maurice Faure, proposed that the National Order of the Legion of Honor should be awarded to Marie Curie – but in keeping with the rule she had once adopted with her husband, the scientist politely declined it.

The debate over whether women should be accepted into the Institute de France very quickly spilled over into the press, where many announcements and articles relating to Marie Curie's candidacy had already been published. Some articles (often by the scientist's friends) were favorable to her cause; they underlined Marie's scientific achievements, especially the most recent ones: her isolation of metallic radium and her two-volume *Traité de radioactivité*. Other articles called these achievements into question, suggesting that Marie Curie had never worked independently.

On 15 December 1910, *Le Matin* published the first article supporting Marie's candidacy, pointing out that "her work had brought her proponents, but brought her gender opponents". On 16 December, *Le Figaro* and *L'Excelsior* published photographs of Marie Curie. On 5 January 1911, the nationalist *L'Action Française* wrote that Madame Curie had never done any work on her own, that she had always been a mere associate of her husband, and that this was insufficient to stand as a candidate to the Academy, and on 23 January the Catholic *La Croix* stated that her isolation of metallic radium had been performed together with André Debierne, an outstanding scientist who alone, not working with Marie, had discovered actinium.

Women stay out

The voting took place on 24 January. It is said that the usual number of guards on duty was doubled and crowds started gathering outside the entrance long before the first Academy member arrived. First only the members of the Academy were allowed to enter the room. Later the chairman of the meeting decided to let only men in from the crowd outside. Traditionally, women had no right to enter the Institute.

A total of 58 members of the Academy took part in the voting. In the first round Edouard Branly won twenty nine votes and Marie Curie twenty eight, with one vote going to Marcel Brillouin. In the second round Branly received thirty votes and Marie twenty eight

again. In this situation the chairman invited Branly to join as a member of the Academy.

The press, with the exception of the extreme newspapers, took the news of the voting results quite calmly, predicting that the next time around Marie Curie would earn the place she deserved and that the lingering prejudice against women in the Institute would soon end. Some papers even claimed that this failure was in fact a victory for Marie.

However, Marie Curie's friends who had supported her candidacy were outraged. Charles Edouard Guillaume, who had presented Marie Curie's life and achievements during the voting-day meeting of the Academy, wrote to her: "This regrettable incident of injustice has made me more upset than you may expect. Over a few sleepless nights I have been asking myself the question of how it came to pass [...]. The choice of Mr. Branly was brought about using such methods that even monkeys would be dumbstruck [...] and this has significantly reduced the prestige of the Academy itself." Other letters from scientists who supported her were in a similar tone.

Marie Curie, obviously disappointed in her ambitions, approached the whole situation quite calmly. Ève Curie's biography of her mother states that her students and associates from the lab were more upset that Marie herself. In Marie's short autobiography, which according to her will was published only in English, she wrote that she had decided to stand as a candidate mainly because of the benefits being elected could have brought for her lab. She also wrote that she had hesitated for a long time about whether to stand as a candidate because of the necessity of paying courtesy visits to Academy members. She also mentioned the debate her candidacy had provoked over the issue of women being accepted into the Academy, and the fact that many Academy members were against the notion. Moreover, she wrote that she had no intention of standing for membership again due to the disgust that filled her when she thought of having to personally campaign and curry favor with Academy members. Her opinion was that such choices should be made spontaneously, without any personal efforts, as was the case for the many academies and scientific associations that had accepted her as their member.

Faithful to her beliefs, Marie Curie never tried to join the French Academy of Sciences again. In 1922, however, she became the first woman admitted to the French Academy of Medicine, of course without any personal effort or campaigning on her part. ■

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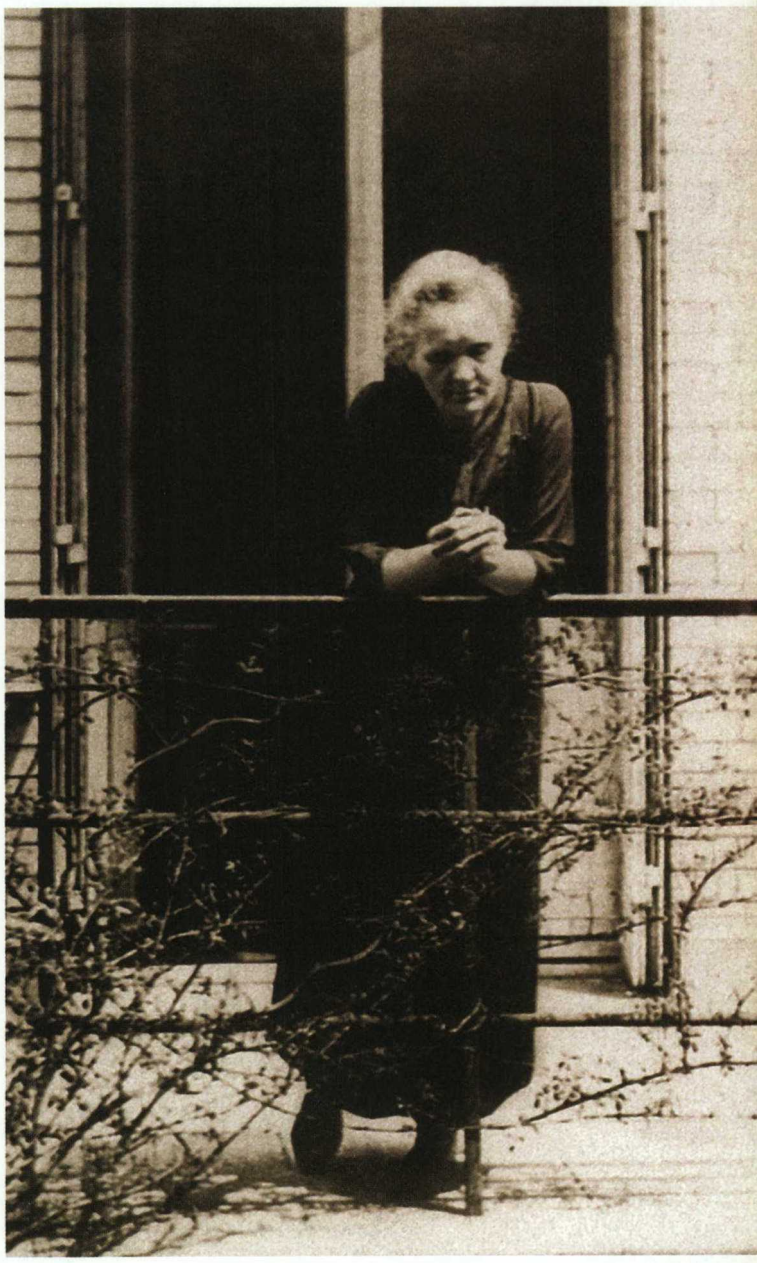

One of the last photos of Marie Skłodowska-Curie, showing her on the balcony of the Radium Institute in Paris, 1934

Further reading:

Blanc K. (1999). *Marie Curie et le Nobel.* Uppsala.
Quinn S. (1996). *Marie Curie: A Life.* New York: Da Capo Press.