



***Education for Humanitarianism in Light  
of Irène and Ève Curie's Childhood  
Wychowanie do humanitaryzmu w świetle dzieciństwa  
Irène i Ève Curie***

**ABSTRACT**


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**RESEARCH OBJECTIVE:** The aim of this article is to reconstruct the pedagogical implications revealed in the childhood memories of the Curie sisters, Irène and Ève.

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**THE RESEARCH PROBLEM AND METHODS:** The main question is – whether and how the Curie family implemented education in the spirit of humanitarianism, with a sense of responsibility for themselves and other people, as well as for the social, scientific and natural good. The actions taken in the form of analysis of documents, diaries and letters of the Curie family aim to reveal how the educational experiences gained from the family home could have influenced the adult lives of the sisters.

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**THE PROCESS OF ARGUMENTATION:** The analysis undertaken in the text focuses on the procedures, principles and forms of educational influences that shaped the educational everyday life of this family. The backdrop of reconstruction was withdrawn from humanity.

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**RESEARCH RESULTS:** The upbringing in the Curie household did not bear the marks of authoritarianism. Instead, we are dealing here with parental support for self-reflection. The children made their own decisions by experimenting on various levels. In the Curie family, concern for human, animal and natural aspects was an important element of the upbringing of subsequent generations. The educational activities described were based primarily on developing in children an unlimited curiosity about the world and intellectual and ethical perspicacity.

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**CONCLUSIONS, RECOMMENDATIONS AND APPLICABLE VALUE OF RESEARCH:** In the discussed cognitive scope, the most important point of reference is the phenomenon of the role of parents as the first teachers, whose attitude and actions have a direct impact on the intellectual and moral development of their offspring, especially in terms of shaping the understanding of the importance of values related to the concept of interpersonal and interspecies humanitarianism.

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→ **KEYWORDS:** IRÈNE AND ÈVE CURIE, HUMANITY, FAMILY, HUMANITARIANISM, EDUCATION

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## STRESZCZENIE

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**CEL NAUKOWY:** Cel artykułu to rekonstrukcja pedagogicznych implikacji ujawnionych we wspomnieniach z dzieciństwa siostr Curie, Irène i Ève.

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**PROBLEM I METODY BADAWCZE:** Główne to: czy i jak rodzina Curie realizowała edukację w duchu humanitaryzmu, w poczuciu odpowiedzialności za siebie i innych ludzi, jak również na dobro społeczne, naukowe i przyrodnicze? Podjęte działania w postaci analizy dokumentów, pamiętników i listów rodziny Curie zmierzają do ujawnienia tego, jak wychowawcze doświadczenia wyniesione z domu rodzinnego mogły wpłynąć na życie siostr.

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**PROCES WYWODU:** Podjęta w tekście analiza skupia się na procedurach, zasadach oraz formach oddziaływań wychowawczych, które kształtowały edukacyjną codzienność rodziny Curie. Tłem rekonstrukcji uczyniono kategorię człowieczeństwa.

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**WYNIKI ANALIZY NAUKOWEJ:** Wychowanie w domu Curie nie nosiło znamion autorytaryzmu. W zamian tego mamy tutaj do czynienia z rodzicielskim wspieraniem autorefleksji. Dzieci dokonywały własnych rozstrzygnięć dzięki eksperymentowaniu na różnych płaszczyznach. W rodzinie Curie troska o ludzkie, zwierzęce i przyrodnicze aspekty była istotnym elementem wychowania kolejnych pokoleń. Opisywane działania wychowawcze opierały się przede wszystkim na wyrabianiu w dzieciach nieograniczonej niczym ciekawości świata oraz intelektualnej i etycznej przenikliwości.

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**WNIOSKI, REKOMENDACJE I APLIKACYJNE ZNACZENIE WPŁYWU BADAŃ:** W omawianym zakresie poznawczym najważniejszym punktem odniesienia staje się fenomen roli rodziców jako pierwszych nauczycieli, których reprezentowana postawa i powzięte działania mają bezpośredni wpływ na rozwój intelektualny i moralny potomstwa, zwłaszcza w zakresie kształtowania rozumienia znaczenia wartości związanych z pojęciem humanitaryzmu międzyludzkiego i międzygatunkowego.

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→ **SŁOWA KLUCZOWE:** IRÈNE I ÈVE CURIE, CZŁOWIECZEŃSTWO, RODZINA, HUMANITARYZM, WYCHOWANIE

## Introduction

The assumption contained in the title of the article, according to which humanity (*humanitas*, *anthropotes*) has many names, refers primarily to the perception of this category in an interdisciplinary dimension of meaning (Buller, 2005, pp. 17–48; Zajadło, 2005, pp. 9–41; Obrycka, 2020b, pp. 47–69). An interesting interpretative perspective is presented by Margaret Archer in her book *Being Human: The Problem of Agency* (2000). For this researcher, the point of reference is the multidimensionality of the human being, which in turn generates the postulate of protecting the term humanity from actions aimed at reducing the human subject solely to the emanation of social factors. According to this concept,

[...] human beings interact not only with the social order, but also with the natural and practical orders, which makes them (at least potentially) autonomous and capable of action. Human beings are subject to the influence of these orders, but at the same time they can influence them themselves (Domecka, 2013, p. 2).

With this in mind, the issue at hand naturally leads us to pedagogical issues which, in the light of the phenomenon of humanity, bring to mind the concept of paideia, exemplified by the educational process of shaping a wise, responsible and noble human being (Miller, 2007, p. 183–206; Łukaszewicz, 2010, p. 17).

The article focuses on the pedagogical implications revealed in the childhood memories of the Curie sisters, who were raised in a family that was already famous during their lifetime – Maria Skłodowska-Curie and Pierre Curie, who were fully committed scientists in their respective scientific disciplines, as well as exceptional educators of their children (Sobieszczak-Marciniak, 2011). The analysis undertaken in the text focuses on the procedures, principles and forms of educational influence that shaped the girls' everyday education. The text poses the following research question: whether and how the Curie family pursued education in the spirit of humanitarianism, responsibility for oneself and others, as well as for the social, scientific and natural good. The aim of the study is therefore to reveal how the educational experiences gained in the family home may have influenced the lives of the sisters, who also became prominent figures, continuing their parents' legacy in various fields.

In this cognitive context, the phenomenon of the role of parents as the first teachers, whose attitudes and actions had a direct impact on the intellectual and moral development of their daughters, especially in terms of shaping their understanding of the values associated with the concept of humanitarianism, is not without significance (Obrycka, 2020a). This term is usually defined in two ways, namely as an ethical and social direction promoting the principles of egalitarianism and the idea of continuous improvement of the human race, and as a human attitude characterised by understanding, kindness and empathy towards other people and animals (Sobol, 2005, p. 267; Arnold, 2010, p. 140).<sup>1</sup>

## Humanity From the Perspective of Childhood Experiences

In this part of the discussion, we will look at the process of raising the daughters of Maria Skłodowska-Curie and Pierre Curie, using the matrix proposed by Sergiusz Hessen for acquiring new knowledge and skills within the triad: episode – system – method (Hessen, 1997b, pp. 340–405).

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<sup>1</sup> It should be added that currently, in Polish criminal law doctrine, the principles of humanism constitute one of the guiding principles within the adopted regulations (Cieślak, 2023, p. 41). It is worth adding that, in general terms, 'humanism' usually refers to a category – a school of thought, while the concept of 'humanitarianism' is associated with the category of attitudes.

When famous and busy scientists at the turn of the 19th and 20th centuries had children, their first educational influences revolved around events such as sharing work in the laboratory, family life, romantic relationships, travel, physical activity, exploring nature, and meeting famous scientists. The national and international activities of their parents, and the fame that came with them, had a powerful influence on the girls' development and intellectual curiosity. All these unusual circumstances supported, above all, the development of self-reflection in Irène and Ève. Hence, the children quickly recognised the unusual context of their parents' prestige. In 1911, Irène wrote to Maria: "they treat me like the daughter of an intelligent and likeable woman, not like the daughter of a famous man and a famous woman" (Grochocka, 2011, p. 19). The consequences of this esteem opened many doors, but were not always beneficial for the adolescent and adult daughters.

All of these episodic interactions are characterised by extraordinary delicacy and emotionality, as evidenced, among other things, by the forms of politeness used on a daily basis. Thus, the children call their mother Mé and their father Pé. In the preserved correspondence, published in 2011 in the book entitled *Maria Curie i córki. Listy*, there are expressions such as: "My dear Mé," "My sweet Mé," "Your loving Irena," "Your loving daughter," "My dear child," "My dear big Irena," "My very dear child," "My tiny baby," "I kiss you tenderly," "My dear Ewunia," "Dear Irena," "What flowers are planted on Pé's grave?" (Grochocka, 2011). The family letters also reveal, in a very intriguing way, Hessen's specific episodic "grabbing" of science and knowledge, which is particularly evident in some texts: Irène to Maria in 1910 – "I loudly demand an outline on derivatives" (Grochocka, 2011, p. 16); Maria to Irène in 1910 – "Try to catch up on music and German, I will send you an outline on algebra soon" (Grochocka, 2011, p. 17); Ève to Maria in 1920 –

The cat stretches and falls asleep again, curled up in a ball. It is beautiful. See you soon; on Friday I have to learn: optics, electricity, magnetism, induction, descriptive geometry, graphic geometry, algebra, similarity, Julius Caesar, Dickens (in English), all literature, etc., etc. And I don't know anything (Grochocka, 2011, p. 123).

In the family's life, especially after Pierre's tragic death in 1906, the girls' grandfather, Eugène Curie, played a significant supporting and educational role. As an adult, Ève wrote about the role of this exceptional man in their lives:

The girls are delighted by their grandfather's presence. Without this old man with blue eyes, their childhood would be overshadowed by mourning. He is their companion and educator to a much greater extent than their mother, who is always away from home, always busy with that LABORATORY, whose name constantly rings in their ears (Curie, 1946, p. 337).

Girls in adolescence differ from each other in many ways. Irène is shy and introverted. She does not pay much attention to fashion. From an early age, she has been boldly pursuing the world of science. She shows exceptional abilities in mathematics and physics (Janiak & Mothersill, 2022; Wróblewski, 2023). She is perceived by those around her as a natural, direct and self-sufficient person, which became particularly apparent when, as a student, she joined the French Red Cross radiology service and

accompanied her mother to the front lines of World War I as a nurse and radiologist in ambulances (Olszewski, 2012, p. 1).

Ève, on the other hand, is sociable and open. She likes fashion, literature and music. Such tastes were unusual, hence: "Ewa eventually realised that her mother did not understand the need for many hours of practice at the keyboard, which was necessary to achieve success in a concert career, encouraging her above all to obtain a general education" (Quinn, 1999, p. 255). Despite such unusual family circumstances, young Ève was able to develop her passions, which over time not only brought her satisfaction, but also shaped her extraordinary courage and agency, developed in the light of her own choices and desires, the most significant example of which was her wartime exile as a soldier and journalist.

Within the framework of what Hessen refers to as a system, it is worth addressing the issue of education. Maria Skłodowska-Curie had strong views on education. She considered the French education system to be oppressive and underfunded, which is why she offered her daughters alternative methods of learning about the world. Thus, Irène and Ève worked intellectually for one hour a day during their early childhood. The girls solved maths, physics and chemistry problems and also learned foreign languages. They spent the rest of the day outdoors. They learned how to garden, went on long walks and did gymnastics. It is worth noting that physical exercise was a key element of their mother's upbringing, and the girls regularly swam, rowed, skated, cycled, rode horses and skied. In addition, the children learned to cook and designed various tools themselves.

This stage was characterised by organisational order and a focus on achieving Maria Skłodowska-Curie's goal of teaching her daughters to overcome fear and think independently (also with regard to religious issues). A fundamental aspect of Maria's educational approach was also the worship of nature, exemplified by her passion for the countryside, nature, animals, trees and flowers. Furthermore, all her educational activities were characterised by an indifference to material matters, which was very close to the scientist's heart and which, in turn, instilled in her daughters resourcefulness and consistency in their actions, as well as the ability to reflect ethically.

Maria Skłodowska-Curie undertook the task of organising a private "Cooperative" for the children of Sorbonne scholars. This initiative involved alternative (for 1907) teaching methods, such as the problem-based method, trips, spending time in nature, experiments, exposure to works of art and literature, learning foreign languages, physical exercise and observation. On the one hand, the issue of children's contact with their peers was important, and on the other, direct contact with eminent scientists<sup>2</sup>. Despite her numerous responsibilities, for two years the Polish woman taught physics lessons to ten young children, including her older daughter, as part of this project. An analysis

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<sup>2</sup> At the Maria Skłodowska-Curie "Cooperative," she taught physics, while Professor Jean Perrin taught chemistry and Professor Paul Langevin taught mathematics. Henrietta Perrin taught French and history. Alice Chavannes taught English and German, and Professor Henri Mouton taught natural sciences. The sculptor Margou taught modelling and drawing (Kienzler, 2016, p. 236; Wróblewski, 2004, pp. 5–6; Gołąb-Meyer, 2004, pp. 61, 62).

of the lesson notes, written by Isabelle Chavannes, allows us to grasp the personality traits of the scientist as a mother and as a teacher. Thus,

[...] whatever she did in life, she took it very seriously. This applied to academic work, preparing preserves for winter and, even more so, raising children. In the case of physics lessons, I am referring to both theoretical preparation, including knowledge of the latest educational and teaching trends, and practical preparation through the construction of instruments and a precise lesson plan. Her notes reveal an innate passion and a talent for teaching inherited from her parents. They also reveal a sense of experimentation, and all this in something as simple as lesson plans for children (Gołąb-Meyer, 2004, p. 61).

It should be added that each lesson ended with a feast of croissants, chocolates and fruit, which from today's perspective shows how important a component of the teaching process is also feasting together, enjoying a meal and spontaneous conversation. Yves Quéré aptly captures this educational phenomenon when he writes:

And then something extraordinary happens: Maria Skłodowska-Curie, holding a U-shaped glass tube in her hand, begins to talk. Above all, she asks – but also provokes – questions: How can you find out if...? What pushes mercury...? How...? Why...? What happened...? Do you think that...? (Quéré, 2004, p. 10)<sup>3</sup>.

Continuing to use Hessen's matrix, I will move on to the plane referred to as method. In this semantic space, it should be mentioned that Irène and Ève Curie also obtained formal certificates, graduating from Collège Sévigné, chosen by their mother because of its less demanding timetable. Despite their diverse interests, both also graduated from the Sorbonne. This stage of crystallisation of unusual attempts and visions of applied methods and ways of educational influence is best symbolised by the words of Maria Skłodowska-Curie herself, addressed to her niece:

Let each of us, dear Hania, weave our own cocoon and not demand explanations of why and for what purpose. If our work is good, we will say to ourselves that we have behaved no worse than silkworms. The rest is not up to us (Curie, 1946, p. 348).

At each of the three stages, the scholar's influence on her daughters was enormous. It was she, as a mother, friend, single woman, and at the same time an outstanding scholar, who strengthened them in various aspects of life and learning, while expressing her opinions in a clear and direct manner. The women explored the world together and tried to understand its extraordinary nature, both in terms of physical and ethical phenomena (Lubenau, 2012, pp. 123–129; Braga & Nascimento, 2017, p. 440).

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<sup>3</sup> The above activities were aimed at developing holistic knowledge in children in many different disciplines. It was also important to sensitise them to objects and various natural phenomena, which was wonderfully highlighted many decades later in the activities of the Wrocław School of the Future, which proposed workshops on unconventional activities inspired in such a way as to enable children to predict, experience, design, contest, act practically, change, offer and choose (Łukaszewicz, 1996, pp. 137–167).

Irène Joliot-Curie had no doubts about her calling. She was passionate about physical chemistry and naturally became an assistant at the Radium Institute, and soon after, her mother's assistant. In 1937, she took up the Chair of General Physics and Radioactivity at the Sorbonne. Together with her husband, like her parents years before, she won the Nobel Prize in Chemistry (Joliot-Curie, 2014; McKown, 1962; Pospieszny, 2023; Conkling, 2016). Unlike her parents, she became involved in politics. She accepted the position of Under-Secretary of State for Scientific Research in the French government. Throughout her life, she considered sport an important part of her identity (she was a fan of jujitsu).

Ève Curie, considered a citizen of the world, wrote a biography of her mother, which remains a bestseller to this day. It is in this publication that the author confides:

Despite the support my mother tried to give me, I did not have a happy childhood. There was only one area in which Maria was completely successful: we both owe her our health, dexterity, physical strength and love of sport. This is what this woman, so extraordinarily wise and noble, succeeded in best (Curie, 1946, p. 345)<sup>4</sup>.

Despite her bitter reflections on her childhood, Ève finds the courage and strength to travel the world during World War II. Thus, "No other professional correspondent, man or woman, has set foot on the battlefields of so much of the world" (Schreiber & Wyciechowska, 2017, pp. 20–21). Despite her horrific wartime experiences, Ève Curie-Labouisse was characterised by her good humour and self-distance. She wrote: "There were five Nobel Prizes in my family: two went to my mother, one to my father, one to my sister and brother-in-law, one to my husband... Only I didn't succeed" (Emling, 2013, p. 294).

In the context of the Curie sisters' memories and ideas about their own needs, desires and social role to fulfil, one can see remarkable self-confidence and a sense of control over their surroundings and the decisions they made in life.

## Towards General Conclusions

The upbringing in the Curie household was not authoritarian. Instead, parents encouraged self-reflection. Children made their own decisions by experimenting in various areas. Irène and Ève cared for each other, their loved ones, and animals, which they treated as friends. In the Curie family, respect and care for living beings was an important part of raising subsequent generations. Today, we can say that the methods and educational measures used were the seeds of thinking about the place and role of humans who consciously abandon the perspective known as hominism, understood as an example of radical anthropocentrism. In the actions of the Curie family, we discover educational postulates that take into

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<sup>4</sup> Ève Curie's work is treated not only as a biography, but also as a hagiography, which is considered to be uncritical and glorifying in its tone with regard to the life and work of Maria Skłodowska-Curie (Kienzler, 2016). Interestingly, the older daughter, Irène, also wrote a biography of her mother (Joliot-Curie, 2020).

account concern for living and future generations, biodiversity, and care for the “ethics of diverse natures” (Lejman, 2015; Gola, 2022; Skowroński, 2006). What is more, the process of the Curie family’s upbringing of their daughters appears to be an empirical version of the idea of “awakening to oneself” (Zieliński, 2023, p. 190; Spranger, 1985).

Self-education was another important aspect of family education in the Curie household, thanks to which growing children could become aware of both the positive and negative aspects of their own human nature. Today, we realise that working through our limitations and weaknesses can be the key to self-fulfilment and the development of unselfish forms of consciousness (Zieliński, 2024; Chutorański, 2024). The above concepts proved to be crucial in the most complex and difficult moments of the Curie family’s daily life. Maria Skłodowska-Curie’s origins (a foreigner from Poland), illness in the family, the premature and extremely tragic death of Pierre Curie, the girls’ mother’s affair with scientist Paul Langevin, brutal attacks by the press, negative treatment of the scientist by the French scientific community, the nervous breakdown of the double Nobel Prize winner – these are situations that not only deepened the daughters’ relationship with their mother, but also showed the strength of family determination, intuition and reciprocity in the pursuit of their own needs and desires, both in private and professional matters (Marzec, 2011, p. 3; Latour, 2010, p. 260).

A holistic view of the educational processes in the family home of Irène and Ève Curie reveals extraordinary gentleness, harmony and logic in action aimed at transforming biological and social anomie through heteronomy into fully formed autonomy, exemplified by a life characterised by independent and courageous thinking and creative action. This is a conceptual framework that finds its echoes in Hessen’s idea:

The transition from learning to creativity, from submission to authority to submission to reason, where the task of education is to master the scientific method, and the task of upbringing is to make someone themselves (Hessen, 1997a, p. 13).

In the Curie family, educational activities were based primarily on developing in children an unlimited curiosity about the world and intellectual and ethical insight. These are strategies that are worth taking a closer look at today.

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