DOI: 10.26485/978-83-60655-92-4/1 ISBN 978-83-60655-92-4

Józef Zając, Beata Fałda

PROFESSOR JULIAN ŁAWRYNOWICZ - TEACHER, EDUCATOR, SCIENTIST

Do you know this country? So cute, so nice,
Where family homes used to be paradise. [...]
Adam Remigiusz Grocholski (1888 - 1965)

The above fragment of Adam Remigiusz Grocholski's poem is quoted here for a reason. In this way, Prof. Julian Ławrynowicz would probably start the Polish-Lithuanian-Ukrainian history of his family. The passing away of this outstanding scientist, educator and teacher is a reason to present his scientific and non-scientific profile, which is an example of the possibility of harmonious combination of hard mathematical and physical rules with a transcendent understanding of the world and man.

I. Childhood and school years

Professor Julian Ławrynowicz was born in a family where the passion for science is most natural. He was the child of Janina Dybowska of the Nałęcz coat of arms and Zygmunt Ławrynowicz of the Białynia coat of arms. The history of the Dybowski and Ławrynowicz families, with rich scientific, patriotic and religious traditions, has many beautiful and touching threads, often cut by the scars of sadness and pain.

His father Zygmunt was born in the backwater of Paliszki in the parish of Kroki in the diocese of Kaunas. The mother - Janina - spent her teenage years in Podolia, in Kamieniec Podolski and Płoskirów, where her parents had a beautiful, stylish manor. We can only imagine what their first meeting looked like. He is a young math teacher, she is a girl seventeen years younger than him, a schoolgirl. Did they already know that fate would one day connect their paths forever?

They were not destined to live happily ever after among the green meadows and fields of Ukraine. The turmoil of history forced Zygmunt Ławrynowicz and the Dybowski family to leave their homeland forever in 1920. They met again in Pyzdry

near Września. Already as a married couple they worked in the local Gymnasium and Lyceum, of which Zygmunt was the Director. Both hoping to be more lucky this time.

In 1928 they moved to Łódź, where they bought a beautiful new apartment. Unfortunately, this time again fate was not kind. The war came - and they lost everything they had again. During this difficult period, on April 8, 1939, their son Julian was born.

The educational challenges he faced as a child would be impossible for most. Trying to meet the dreams of his parents, Julian developed his interests in mathematics and physics. His mother instilled in him love for history, and his uncle Benedykt Dybowski, a well-known biologist, doctor, Polish independence activist, researcher of Siberia and Kamchatka, professor at the University of Lviv, aroused in young Julian an interest in biology and biophysics. As a 6-year-old, he started his education at Primary School No. 80 in Łódź immediately from the second grade. The extraordinary abilities of the future professor can be evidenced by the fact that he completed primary education at the age of 12..

His parents surrounded Him with great love, but not for long He enjoyed the warmth of a full family home. The father, Zygmunt Ławrynowicz, died in 1951, leaving his son at a time in his life when paternal advice is perhaps most needed. His only rock was his mother, a woman of great heart and wisdom.

In 1951 Julian Ławrynowicz began his education at the 25th Stefan Żeromski High School in Łódź. He became known there as an extraordinary student, passionate about mathematics. Even then, his efforts with mathematics were rated very highly. This is evidenced by high places at the Mathematical Olympiads, of which he was a frequent participant. The friendships made at that time, among others, with Professor Leszek Wojtczak, have stood the test of time and have become a strong basis for long-term cooperation on scientific and private grounds.

II. Years of study and scientific career

Stefan Żeromski wrote in "Sisyphean Works"

"Science is like an immeasurable sea... The more water you drink from it, the more thirsty you are. One day you will know what a delight it is. Just study, with all your strength, to taste it." The passion for sciences resulted in the choice of fields of study.

In 1955 Julian Ławrynowicz became a student of mathematics and physics at the University of Łódź. In 1960, with master's degrees in these two faculties, he started working at his alma mater and, in 1961, he additionally obtained employment at the Institute of Mathematics of the Polish Academy of Sciences in Warsaw, where he worked, between others, under the direction of Prof. Bogdan Bojarski.

In 1964 he obtained a doctoral degree in mathematical and physical sciences on the basis of the dissertation "Variational methods in the theory of quasi-conformal mappings". His thesis was supervised by Prof. Zygmunt Charzyński. The importance of Prof. Ławrynowicz's doctoral dissertation can be proved by the fact that it was awarded the prize of the Polish Mathematical Society. At the age of 29 he received the title of habilitated doctor for his dissertation entitled "New variational methods in the theory of conformal and quasi-conformal mappings". Other impor-

tant dates from the calendar of his scientific career include 1971, when he took over the function of associate professor, 1976, in which he obtained the title and position of associate professor, and finally, in 1992, he could already boast of the title of ordinary professor. He was also a visiting professor, among others, in Pisa, Toulouse, Paris, Rome and Mexico. Professor Ławrynowicz's scientific career was associated with many research centers both in Poland and abroad. Let us mention, for example, the Lublin, Kraków, Toruń and Warsaw research centres. He also had much in common with the scientific community of Mexico, Japan, Finland and Ukraine.

III. Organizational activity

"Man is great, not by what he has, but by what he is, not by what he has, but by what he shares with others." (John Paul II)

Professor Ławrynowicz's scientific career was inextricably connected to his organizational activity. For 30 years he was the Head of the Laboratory of Complex Analysis and Differential Geometry of the Institute of Mathematics of the Polish Academy of Sciences and the Head of the Branch of this Institute in Łódź. He was an ordinary member of the Brussels Scientific Society and a foreign member of the Polish Scientific Society in Żytomierz. Professor Ławrynowicz was also an ordinary member of the Łódź Scientific Society, where he headed the Mathematical and Physical Commission and was responsible for the entire publishing activity of the Society. It is worth mentioning that from 1984 he was a member of the (nationwide) Council of Scientific Societies Organizational skills and fluency in several foreign languages have become his advantage in promoting scientific achievements in the field of mathematics and physics in Poland and in the world and in developing various forms of international cooperation. On behalf of the University of Lodz, he was the coordinator of international agreements with such universities as: Universit? La Sapienza (Rome I), Universitè Pierre et Marie Curie (Paris VI), Ukrainian Academy of Sciences (Kiev) and Instituto Politecnico Nacionale (Mexico).

Particularly noteworthy are numerous national and international conferences and scientific seminars, which he organized or co-organized. It is worth mentioning here the series of conferences on analytical functions, summer schools of analytical functions, Finnish-Polish summer schools of complex analysis, Finnish-Polish-Ukrainian summer school of complex analysis. The scientific legacy of these meetings are numerous publishing houses of which he was an editor or co-editor; many of them appeared as part of the Banach Center Publications series.

Promotion of science can take many forms: conferences, seminars, scientific festivals. Professor has always actively promoted one more way of presenting scientific results in the field of mathematics and physics. He was the editor-in-chief of the bulletin of the Łódź Scientific Society: Bulletin de la Société des Sciences et des Lettres de Łódź and its series: Recherches sur les Dèformations. In addition, he was the chairman of the Editorial Team of The Problems of Social Scientific Report. He was a member of the Editorial Committees of the following journals: Reports on Mathematical Physics, Nepali Mathematical Sciences Report, Selecta Gaussiana. In the years 1992-1995 he was the editor-in-chief of the publishing series of the Łódź

Scientific Society Along the Science Trails. The Professor's organizational and scientific activity was actively supported by Mrs. Elżbieta Gałuszka and Zofia Fijarczyk. Their work, invisible to outsiders, was an invaluable contribution to his promotion of his science and his own achievements.

IV. Mathematics and physics

"Everything you've learned so far will lose its meaning if you can't find an application for that knowledge." (Paulo Coelho "The Alchemist")

This maxim has always accompanied Professor Ławrynowicz. His scientific interests in mathematics and physics included, in particular, complex analysis, biholomorphic invariants and Clifford analysis with its applications, mathematical physics, field theory and solid state physics. A tangible effect of his research is his extremely rich scientific achievements including about 400 scientific papers, mainly in mathematics and physics, and 12 books. He has joint publications with mathematicians from many countries, including Belgium, Brazil, Bulgaria, Finland, France, Germany, Greece, Italy, Japan, Mexico, USA, Ukraine and Italy. The most important scientific achievements of Prof. Julian Ławrynowicz include:

1. Creating the concept and examining the consequences of considering biholomorphic invariants dependent on the Hermitian metric from the point of view of optimizing this metric due to certain properties or estimates.

2. Introduction of supercomplex structures and their application in Clifford analysis.

3. Effective use of the concept of holomorphic chain.

The obtained results aroused the interest of scientists and became an inspiration for many of them for their further research.

When you told us about the wise, the good and the intelligent, the philosophers, inventors and dreamers - the people who change the face of the world - you always reminded us that they too were once children and had to learn everything. This gives us the strength to try. (...) It was you who explained to us that life can be boring like gray paper, or deep like the ocean and high as the sky. The choice is ours. Thanks to you, we know that the smallest diamond shines stronger than large, but ordinary glass, that it is better to do small things well than big ones - just like that. Thanks to you, we know that if we really want to do something, then we work on it, we find pleasure in it - and we improve in it and then it does not matter whether it brings us fame or not.

(Pam Brown, To a Very Special Teacher)

For several decades of his scientific work, Julian Ławrynowicz gathered around him and raised a new generation of scientists. Under his wings many young adepts of science grew, and countless were modeled by his works. Professor Ławrynowicz could boast of ten doctors and a significant group of doctoral students working on obtaining scientific degrees.

V. Nature and ethics

"The natural world is but a duplicate image of Paradise. The very fact that this world exists is proof that there is a more perfect world. God created it so that through visible things men might grasp his spiritual teachings and see the revelations of his wisdom."
(Paul Coelho "The Alchemist")

Prof. Ławrynowicz's scientific interests were not limited only to problems in the field of mathematics and physics. His versatile mind went beyond a strict view of the world, touching on extremely subtle issues - nature and ethics.

How come a mathematician and physicist becomes interested in them? At this point, let us return to Julian's childhood. Mother Janina, a high school teacher of English and history, a botanist by passion, instilled in her son sensitivity to the surrounding nature. Undoubtedly, these efforts were also complemented by the achievements of the mentioned earlier Benedykt Dybowski - a great naturalist, traveler, explorer and doctor, researcher of Lake Baikal, South Asia and Kamchatka, father of Polish limnology. They became an inspiration for the young scientist to research on the plants of scarce lakes, which resulted in eight scientific papers on this subject, including one shared with his wife Maria, botanist, mycologist, full professor of biology at the University of Łódź. As in the case of nature, the sources of his interest in ethics should also be sought in the bosom of the family, in which a special place is occupied by such well-known personalities of the clergy as:

1. Fr. Stanislaw Ławrynowicz - priest of the Archdiocese of Mogilev, parish priest in Białynicze Marian sanctuary in the deanery of Orsha, parish priest in Vladivostok, where he suffered martyrdom in the twenties of the last century;
2. Julian Ławrynowicz - priest of the diocese of Pinsk, in the interwar years parish priest in Kamień near Stołpc;
3. Mieczysław Dybowski - priest of the Diocese of Zhytomyr and for some time vicar in Podolian Mohylov on the Dniester, psychologist, professor at the Catholic University of Lublin and the Adam Mickiewicz University in Poznań.

The results of Prof. Julian Ławrynowicz's studies in ethics are many papers in this field, among which the following deserve special attention:

1. "In the footsteps of Blessed Manuel and the 25 Mexican martyrs" (article shared with his wife Maria),
2. "Value and evaluation and the perfect life in the temple of nature" (article shared with his wife Maria),
3. "Formation Program and Family Pedagogy in the Light of the Activity of John Paul II".

The last of these works was particularly close to Him. It was published by the Archdiocesan Publishing House of Lodz in volume 5 of 1997, as a result of the work of

the Research Center of Christian Thought of the University of Lodz. The mentioned volume was given to the Holy Father - John Paul II, during the "ad limina" visit of the Archbishop of Łódź to the Vatican in 1999. Prof. Ławrynowicz was a member of the 5-person Council of this Center.

VI. Family life

Each of us sometimes needs silence and entering into our spiritual interior. But in the growing rush of the world around us, we are not always able to do it. He succeeded. He was able to prepare scientific work while on the train, contemplate nature, fall into reverie in the silence of churches and convents, about which he could boast of inexhaustible knowledge. Whether such skills are possible to learn - we do not know. However, we know for sure that nothing could be done without the support of the loved ones - family and friends.

The University of Lodz has always occupied an important place in the Professor's life. It was there that he met his wife, infinitely devoted to her husband, Maria née Wawrzkiewicz, assistant at the Department of Systematics and Geography of Plants, currently a full professor in the field of botany and mycology.

His family had always been his rock. In 1968, on his 29th birthday, he became the father of Alexandra Teresa, born like him, on April 8. In 1972, the Ławrynowicz family was enlarged by a son Mirosław, and in 1975 Olgierd was born. Professor Ławrynowicz also left three grandchildren.

VII. Just because he was

One can write a lot about Julian Ławrynowicz's unique personality, great charisma, scientific and non-scientific interests. Every word spoken about him gives a picture of a fulfilled man who lived the time given to him very actively and creatively. Above all, we would like to thank Him for giving us inspiration for action and creative work. He always showed that one can achieve any goal if one really wants to.

Translation: Małgorzata Nowak-Kępczyk