



Elżbieta Fonberg (1920–2005)

Professor Elżbieta Fonberg passed away in tragic circumstances on September 9, 2005. Her family, numerous friends and the international neuroscience community deeply mourn her sudden death.

Professor Fonberg was born on August 10, 1920 in Natolin (Podlasie, Poland). She was a loyal patriot who never ceded to the pressures of the communist party. From 1942 to 1944 she served in the Home Army and took part in the Warsaw Uprising. During the war she pursued her medical studies in the underground classes of the Medical Department of Warsaw University. In 1947 she completed her medical degree and joined the faculty of the Nencki Institute (at that time in Łódź). There she earned her PhD in biology in 1959 and four years later the D.Sc. (habilitation) and finally was nominated a professor.

Her scientific career was associated with the Nencki Institute from the beginning to her retirement in 1990. There she conducted her famous studies on experimental neurosis, and later, on neurophysiological mechanisms of motivation and emotional behavior. Professor Fonberg initiated research on the functions and anatomy of the limbic system in Poland. In 1971 she established the Limbic System Laboratory. She was especially interested in the role of amygdaloid nucleus in controlling positive and negative emotions. On the basis of her sophisticated experiments on alimentary behavior and defensive reactions in dogs she put forward the hypothesis that the amygdalar complex may be functionally divided into two antagonistic parts - the excitatory dorsomedial and inhibitory lateral. She demonstrated that damage of the dorsomedial amygdala produces, besides impairment of specific functions, general apathy and sadness, whereas damage of the lateral part evokes increased activity, joyfulness, liveliness and social responsiveness. She believed that the “dorsomedial syndrome” as an equivalent of the depressive state and successfully used it as a model of depression for pharmacological studies.

Professor Fonberg was the author of over 180 scientific papers, many of them published in highly recognized international journals. She contributed 13 chapters in books published, among others, by Plenum Press and Oxford Press. Her two books written for a broader Polish public (“Nerwice: Przesady a nauka” Wiedza Powszechna, 1974 and “Nerwice a emocje: Fizjologiczne mechanizmy” Ossolineum, 1979) became best-sellers. She was an excellent writer with a unique gift for grasping the wider implications of her scientific findings and transmitting these with rare literary sensibility to audiences from outside the neurobiological community.

ii Polish Neuroscience Society Chronicle

Prof. Fonberg was also a great teacher. For many years she taught at the Psychology Department of the Warsaw University and at the Medical Academy. At the Nencki Institute she supervised several doctoral theses.

During the times when Polish science was isolated from the international community, Professor Fonberg managed to maintain strong ties with prestigious institutions abroad: she held research fellowships at the Yale University (1959–1961 and again in 1965) and at the University of California (1974–1975). She also ran seminars and lectured at twelve other U.S. institutions. In the 1960's and 1970's her lab was visited by numerous distinguished scientists and researchers.

She was an active member of international organizations such as: The International Society for Research on Aggression, The European Neurosciences Organization, The International Brain Research Organization, and others. She received many national awards and academic honors.

She was not only a brilliant natural scientist but also a humanist who pursued her love for art and poetry throughout life. She inherited these two passions from the refined atmosphere of her family home. On her father's side she took her place in a long line of distinguished doctors and scientists hailing from Vilnius, while from her mother's side she gained an appreciation for cultivation of the artistic sensibilities. She was a poet who wrote poems prolifically throughout her life and published some of them.

Professor Fonberg showed restless creativity and curiosity. She was an avid reader within and beyond her discipline, frequently exploring books in history and anthropology. These traits spoke of her fascination with science and her unrelenting drive for self-improvement which helped her broaden the horizons of neuroscience. She was an incredibly strong personality who displayed an unmatched resilience in the face of illness and adversity. She was a woman of principle, incapable of complaint.

She was known for granting her students a substantial degree of autonomy, for stimulating their interests and for providing a learning atmosphere free of constraint, which helped develop their research. Numerous students she mentored remain faithful to the scientific path that she helped them chart.

Polish and International science has lost an erudite thinker, scholar, and researcher. We, who were fortunate enough to have known her, have lost a respected colleague, teacher and friend.

Jolanta Zagrodzka

Memories of Elzbieta Fonberg in America

With the relaxation of the “Iron Curtain” in the late 1950's cultural exchanges of scientists between Eastern Europe and the West had begun. Dr. Elzbieta Fonberg, fresh from obtaining her Ph.D. in Jerzy Konarski's laboratory in Warsaw, was one of the first of these. Ela, as I will refer to her, came to Yale on a Rockefeller Fellowship for postdoctoral training in the laboratories of two eminent researchers investigating brain mechanisms of behavior, the psychologist Professor Neal E. Miller and the physiologist Professor Jose J.R. Delgado.

It was in October of 1959 at one of Miller's weekly lunchtime research meetings with his graduate students and postdocs that I remember him introducing Ela as a newcomer from Poland. At that time the laboratory was actively investigating the rewarding self-stimulation phenomenon in which rats would repeatedly press a lever to self-administer brief pulses delivered to the medial forebrain bundle (MFB) of the hypothalamus via indwelling electrodes. Ela chose to examine whether the reward was elicited by conduction upstream or downstream in the MFB. I was put in charge of teaching her the methodology involved and from that ensued a close and long-lasting friendship.

For the first few months she would complain to me about the difficulties of mastering not scientific English in which she was quite proficient but the mysteries of everyday communication such as how to order a hamburger at a restaurant or participate in mere social gossip. By the end of each day she would lament that inside her head there was such a buzzing of words that she almost couldn't hear, much less concentrate. Then one morning she entered the lab in an exalted mood; in the night she had for the first time dreamt in English. Remarkably, from then on, the buzzing stopped and she could reach the end of the day without mental exhaustion. Still, in her spoken speech she continued to have grammar and pronunciation difficulties. However, she was so ingenious in

finding ways nevertheless to express herself that Miller in her letters of recommendation wrote that she spoke broken English fluently.

Her 1959–61 stay in the United States, though officially scientific, was much more than that. Immediately, she took great personal interest in how people treated each other compared to Poland. Initially she was amazed and gratified at the ease with which Americans offered help when asked and how quick it was to obtain the supplies and services needed for her research with a minimum of red tape [not true now]. But then she began to see this as characterizing American friendships – easily formed but not deeply held. Continually fascinated with why, she finally concluded it reflected the fact that the New World is historically an emigrant society of upwardly mobile strangers. For them the basic necessities of putting down roots – sometimes often as they moved about – required and rewarded easy and informal cooperation with others. But at the same time, the freedom their emigrant status granted them to rise above hereditary stations to which they would have been largely fated in Europe encouraged a devotion to “getting ahead” that limited time to cultivate close emotional relationships only to family and a few chosen associates.

But Ela’s reactions to America were not only sociological but also intensely aesthetic... yes, even poetic. I will quote at length from a letter she wrote to me in late November of 1960 during a combination plane ride to New Mexico and bus trip from there to California for invited science lectures: “All the time the land is yellow, grey, flat and monotonous. Maybe below the airplane there are cactus but I cannot see them. One road is going through this emptiness. How lost may feel the man alone going by this road. It reminds me [of] a poem we translated from Polish.” Later: “Always it impresses me very much – to be between the stars and the earth. The humanity which by nature was deprived of wings – realized its proud dreams – and now is able to fly in the air. I still cannot simply take it as the regular means of transportation but as the continuous progress of humanity toward [the] silent power and immensity of the universe.” Still later and on the bus: “I have seen cactus!!! Against the red sky of the evening their shapes, modern in the simplicity of the pattern, looked superb... hundreds and hundreds of them – surrealistic and unhuman. And I have seen Grand Canyon and admired its five chapters of geological history... in the beautiful sunshine, yellow and purple, and in the evening – covered by shadow – but still immense, quiet, proud – I think that Indians took their inspiration of the shape of the gods from Grand Canyon. (I am not sure that you can understand me because I have to invent the names for describing the things about which I never have spoken in English.)”

Back in Poland and over forty years later Ela once more tried to find the words in English that would describe similar kinds of impressions and thoughts that had by then taken shape as a published volume of her verse titled “Wiersze wyrwane z życiorysu” [“Poems Torn from my Biography”]. She turned to me for translation help because “... emotional relations between words and associations between feelings may be quite different in English than for similar words in Polish.” Yet she cautioned: “You as a scientist would like that everything shall be rational, strict, logical. In science 2×2 is always 4. But in poetry 2×2 may be 5, 3, or even 7 !!! Poetry gives the spices for our imagination”. With that in mind, what follows is her last poem in the volume, one on which she and I had just begun to work before her sudden death. It is here therefore finished with the invaluable help of Kris Turlejski.

Before that, however, a few ending comments on Ela in America. She visited it a few more times, most extensively in 1974–75 when she collaborated in research with Professors Donald Novin and Donald Lindsley of the University of California in Los Angeles and Professor John Flynn, again at Yale. Highly regarded as a scientist, she gave many invited lectures around the country with perhaps the most honor at the National Institutes of Mental Health as a guest of Dr. Mortimer Mishkin. For those with whom Ela developed friendships during her visits here she will be greatly missed, proving that at least between them and her the complaint about the lack of close emotional ties in America certainly does not apply, me amongst them perhaps most of all.

Ted (Edgar) Coons

To honor Professor Elżbieta Fonberg's memory, Professor Edgar E. Coons has made a generous donation to Myanmar Foundation for Analytic Education, Inc.

Zapach Świata

Ścieram z podłogi plamy światła
Żółty kieliszek wyciskam do herbaty
opiera się - to nie cytryna
Usiłuję złowić pajęczyny
promieni słonecznych
Poruszam się ruchem
konika szachowego
Potykam się o cienie
Schody o znaczonych krawędziach
są przyjazne
Białe marmurowe schody bez poręczy
urwisko nad przepaścią
Mrużę niedowidzące spragnione świata oczy
Przepych wiosny to zamglone niewyraźne
pejzaże Sisley'a
Powalone pnie drzew
czają się
i szczerzą zęby jak wściekłe kundły
Czarne pojemniki na śmiecie
stoją na drodze jak zgarbione staruszki
podstawiają nogę
Krzaki i kupy zeschniętych liści
jak złośliwe karlice czepiają się brzegu płaszcza
Głębokie doły dobrodusznie
udają płytkie kałuże
lub cień od czegoś
czego w ogóle nie ma
Samochody nagle wyskakują
z szarego niebytu
Tylko najdobrotliwsze
sygnalizują szurgotem swe istnienie
Nawet książki są złośliwe
linijki krzyżują się
litery kulą podskakują fikają kozły
lub wskakują na siebie
paradując na barana
jak rozbawione dzieci
Kwiaty zmieniają kolory
I tylko zapach jest ten sam
zapach świata

Smell of the World*

I wipe from the floor spots of light
I squeeze a yellow glass into a cup of tea
It resists – it's not a lemon
I try to catch spider webs
of sun rays
I side-step like a chess-knight
and still stumble over shadows
Stairs with marked curbs
are friendly
Stairs of white marble without rails
are the precipice over the abyss
I blink my half-blind eyes craving for the world
but the splendors of Spring are now foggy and
unclear
Sisley landscapes
Upturned stumps of trees
stalk and show their teeth like rabid mongrel dogs
Black garbage containers
stay in the way like humped old women
and trip my legs
Bushes and bunches of dry leaves
like malicious dwarfs cling to the hems of my over-
coat
Deep pits play practical jokes
pretending to be shallow puddles
or the shadow of something
that does not exist
Cars suddenly loom out
of a grey nowhere
Only those most friendly
signal their presence with a hum
Even books are nasty
lines cross each other
letters squat, jump up, turn somersaults
or they leapfrog over each other
parading on neighbors' backs
like playful children
The flowers change their colors
And only the smell is the same,
the smell of the world

From: "Wiersze wrywane z życiorysu" ("Poems Torn from My Biography") by Elżbieta Fonberg, translated by Edgar (Ted) Coons and Kris Turlejski