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TRIBUTE TO PROFESSOR PIOTR FRANCUZ: INTRODUCTION TO A SPECIAL ISSUE ON PERCEPTION AND COGNITION

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This special double issue of *Annals of Psychology* is dedicated to the memory of Professor Piotr Francuz (1960–2020). In this editorial, we introduce the person of the Professor and present the initiatives commemorating him that have taken place over the past year. One of his most significant achievements was the initiation of the Perception and Cognition Lab at KUL, where experimental neurophysiological and behavioural research has been conducted in various areas of cognitive psychology. These basic and applied studies are currently continued by the Professor's associates. The current special issue contains articles on diverse topics in which the authors—his collaborators and friends—adopt various theoretical perspectives and apply distinctive paradigms. This multi-faceted perspective corresponds with the wide range of Prof. Francuz's scientific interests.

Keywords: Piotr Francuz; Perception and Cognition Lab; cognitive psychology; experimental psychology; neuroscience; neuroaesthetics.

PROFESSOR PIOTR FRANCUZ—AN EXTRAORDINARY SCIENTIST AND PERSON

The current special issue of the journal is a tribute to Professor Piotr Francuz (died November 14, 2020), who built and maintained relations far from official rules and rigid conventions, so we feel fully entitled and privileged to call him

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Piotr. For many years, Piotr worked as an executive editor at *Annals of Psychology*. Throughout his scientific career, he was affiliated with the Department of Experimental Psychology (which he headed from 2004 until his premature death) at the Institute of Psychology of the John Paul II Catholic University of Lublin (KUL). His doctoral advisor and mentor was Professor Zdzisław Chlewiński (1929–2021, see Francuz, 2001), from whom he derived research insight and an appreciation for the need for in-depth theoretical exploration of the analyzed phenomena. Piotr had his own opinions, spoke with a clear voice (not only as a scientist), and did not shy away from scientific disputes and discussions. He eagerly engaged in the analysis of psychological phenomena in an interdisciplinary group, which—as he was convinced—allowed one to deviate from the beaten tracks of cognitive psychology and discover new approaches. Significant milestones in his career were (1) his doctoral thesis on the mental representations of concepts, focused on basic research (Francuz, 1990a; see also Francuz, 1990b), (2) his habilitation thesis on the comprehension of television news (Francuz, 2002), and (3) *Imagia*, a book in which he presented the foundations of a neurocognitive theory of image, and for which he received the title of professor (Francuz, 2013).

The last years of Piotr's work were devoted mainly to neuroscience and empirical aesthetics. We are aware that he intended to present his original concept of aesthetic experience. Unfortunately, he did not manage to complete this work... Even in his illness, he remained academically active until just before he passed away. Two co-authored papers (Oleś et al., 2021; Zapała et al., 2021) and abstracts of two conference papers (see Krzys et al., 2021; Szewczyk et al., 2021) have been published since his death, and a few manuscripts with significant contribution on his part are still under review.

Piotr was demanding yet kind and supportive. Both in science and in life, he had an outside-the-box way of thinking. Conversations with him often took place in an atmosphere of joking or absurdity. It was not easy to end them because he pursued his discussions by asking his interlocutors new and challenging questions in seeking the truth about humans and the mind. Piotr had high expectations of his colleagues (he wanted them to develop psychology as a science of the highest standard in the world) and of himself.

Piotr's importance to the Polish scientific community is best demonstrated by the numerous commemorative publications that followed his death (Brzeziński & Oleś, 2021; Cudo & Kopiś-Posiej, 2020; Fortuna & Stróżak, 2021; Fudali-Czyż & Tużnik, 2020; Hohol, 2020; Stróżak & Zabielska-Mendyk, 2020; Zabielska-Mendyk, 2021). An extraordinary book dedicated to his memory, *Piękno umysłów* [*The beauty of minds*] (Fortuna & Szewczyk, 2021), was written by his former doctoral students (now doctors) and closest associates. One of the essential parts of this publication is

the methodological chapter (Jaśkiewicz et al., 2021), which seeks to introduce readers who have not had the opportunity to get to know Piotr in person, to the style of his work on research projects and in designing experiments. The publication's cover, created by Dobrosław Bagiński, a close friend of Piotr's, is deep and symbolic. It refers to the cover of Piotr's opus magnum, *Imagia* (Francuz, 2013; see Figure 1). As Bagiński explained to us, the white arrows are Piotr's spirit, embracing his closest co-workers—he patronises from above.

Figure 1. The covers of Piotr's *Imagia* and *Piękno umysłów*.

PERCEPTION AND COGNITION LAB

The title of this special issue of *Annals of Psychology* comes from the laboratory's name, which Piotr founded in 2008. Launching a new lab is always a challenge, but the boldness and strong management skills that characterized Piotr enabled him to create an innovative and productive scientific environment. The Perception and Cognition Lab at KUL started as an advanced psychophysiological laboratory equipped with electroencephalography recording systems and eye-tracking devices. That was the beginning of a new and exciting stage of Piotr's career, allowing him

to analyze objective measures of mental processes, such as brain electrical activity or eye movement patterns. Importantly, Piotr managed to build a place where all research team members have felt that their work is valued and that they can grow and thrive within.

Many research projects supervised or inspired by Piotr were carried out at the lab. These projects encompass a wide range of topics, reflecting Piotr's broad horizons, and include studies on electrophysiological responses to media processing (Francuz & Zabielska-Mendyk, 2013; Stróżak & Francuz, 2016), oculomotor and brain correlates of writing and spelling disorders (e.g. Borkowska et al., 2014; Francuz et al., 2013), brain-computer interfaces (Zapała et al., 2018; 2019; 2020), motor imagery (Francuz & Zapała, 2011; Zapała et al., 2015; 2021; Zabielska et al., 2018), spatial disorientation (e.g. Bałaj et al., 2019; Lewkowicz et al., 2018a; 2018b; 2019; 2020; Stróżak et al., 2018), visually induced illusion of self-motion (Stróżak et al., 2016; 2019), auditory imagery (Tużnik et al., 2018; Tużnik & Francuz, 2019), and aesthetic judgments in visual arts (e.g. Jankowski et al., 2020a; 2020b; Francuz et al., 2018; Fudali-Czyż et al., 2018; Kołodziej et al., 2018; Oleś et al., 2021). Many other projects are still being conducted and developed by Piotr's collaborators, which shows that his mentoring style and clear leadership gave rise to a successful team of researchers.

THE DIVERSE, EMPIRICAL AND THEORETICAL NATURE OF THE ARTICLES IN THIS ISSUE

This current issue includes articles prepared by researchers linked to Piotr based on mutual research interests, and other relationships of various kinds, often cordial and friendly, which frequently stemmed from joint research grants or student-supervisor relationships. These papers are diverse in subject matter, which fits perfectly with the irrepressible thirst for knowledge in many areas of psychology that characterized Piotr. Some are empirical, and others are theoretical, which corresponds well with the two interwoven strands of Piotr's work.

The issue opens with an article whose principal author is Piotr, and this is the last paper that we are aware of in which he served as the lead author. It was written in collaboration with Tomasz Jankowski and Paweł Augustynowicz. The article touches upon a recent topic of interest and importance for Piotr, i.e. aesthetic judgments in visual arts and their oculomotor indicators. The next paper was written by Jolanta Pisarek and Emilia Zabielska-Mendyk, who were both Piotr's students, and with whom he conducted research in media psychology, especially with regard to

processing audiovisual messages (like movies or television programs). Consistently, the article concerns the changes in film preferences and motivations behind watching movies during the COVID-19 pandemic, and looks at the relationships between film preferences and pandemic psychological resilience. The paper by Aneta R. Borkowska addresses the question whether the intelligence level of children with dyslexia can contribute to their problems in complex motor skills. This work directly points to Borkowska's collaboration with Piotr and their studies on oculomotor and brain correlates in writing and spelling disorders.

The subsequent three articles also concern the functioning of individuals with certain cognitive constraints. Aleksandra Mańkowska, Kenneth M. Heilman, John B. Williamson, Bogdan Biedunkiewicz, Alicja Dębska-Ślizień, and Michał Harciarek deal with the issue of leftward spatial bias in patients with end-stage renal disease who often develop attention disorders. However, the exact mechanisms of these disorders are still largely unknown. Ludmiła Zając-Lamparska focuses on the role of age in the relationships between working memory and fluid intelligence in a study conducted with participants from early and late adulthood groups. On the other hand, Włodzisław Duch offers us a unique first-person perspective of auditory imagery agnosia and discusses the putative brain mechanisms of this phenomenon.

The last four articles are primarily theoretical, or review and re-analyze the results of previous studies. Grzegorz Króliczak (Gregory Kroliczak), Mikołaj Buchwald, Michał Klichowski, Agnieszka M. Nowik, and Brian J. Piper conducted new analyses on the data from their previous functional magnetic resonance imaging (fMRI) studies and delivered an updated report on atypical neural representations of praxis and language. Czesław S. Nosal considers the functions of intuition in consciousness and cognition, and suggests that a new theoretical framework incorporating unconscious and conscious processes is slowly emerging on the grounds of cognitive neuroscience. Maria Lewicka deliberates over the issue of psychological essentialism, a belief that is especially important in environmental psychology, and argues that people's aesthetic preferences regarding the physical environment are based mainly on this belief.

Finally, this special issue of *Annals of Psychology* dedicated to Piotr's memory concludes with an article by Michał Wierzchoń. The author reconstructs a neurocognitive model of art experience that Piotr proposed (Francuz, 2013), and suggests that this model should be extended to take into account the results of consciousness studies that are highly relevant to the perception of art. We hope that future studies will benefit from these suggestions. We also believe that the concepts that Piotr developed will be further expanded, and his contribution to many fields of cognitive psychology and neuroscience, especially to empirical aesthetics, will endure and flourish into the future.

CRediT Author Statement

Magdalena Szubielska (60%): conceptualization, writing (original draft), writing (review and editing).

Paweł Stróżak (40%): conceptualization, writing (original draft), writing (review and editing).

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