

## IN MEMORIAM

## ROBERT FRANCÈS (1919-2012)

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**W**E WERE SADDENED to learn of the passing of Robert Francès last November 26 at the age of 93. His work has had an enormous impact on our field, and his book *La Perception de la Musique* (1958; reviewed in these pages by Cuddy, 1989) is rightly considered a classic that helped initiate and stimulate the considerable growth of the field of music perception, broadly defined, over the last 50 years.

Prof. Francès had a long and eventful life. He was born in Turkey in 1919 and received his schooling in France, receiving the baccalauréat in 1938, the Licence de Philosophie from the Sorbonne in 1941, and the Diplôme d'Études Supérieures in 1942. While still in graduate school he joined the resistance under the name of "Didier," and continued in that effort until he was arrested by the Nazis and sent to Auschwitz. He was repatriated after the war, in 1945. He received the Médaille de la Résistance and the Croix de Guerre, and is a member of the Légion d'Honneur. He continued to work on his doctorate while teaching at Marseille and then as a researcher CNRS, completing his dissertation, the book *La Perception de la Musique*, in 1958.

In 1965 Francès joined the faculty of the new Université de Paris – X at Nanterre, and was appointed professor in 1968. He was active on that campus in developing its research capabilities, serving on the Scientific Council and as Associate Dean for Research. He founded and directed that Laboratoire de Psychologie Expérimentale et Différentielle at Nanterre, and founded the Laboratoire de Psychologie de la Culture at CNRS which he directed until 1984. He also directed the Institut d'Esthétique et des Sciences de l'Art, and served as President of the Société Française de Psychologie in 1971-72. He was awarded the Ordre National du Mérite and was a Chevalier des Arts et des Lettres and Commandeur des Palmes Académiques. The fiftieth anniversary of the appearance of *La Perception de la Musique* was celebrated with the publication of a festschrift edited by Laurent Guirard (2010).

Francès's 1958 book arrived at an opportune time to have an impact on American psychology. For 50 years radical behaviorism had dominated the agenda of psychological research, relegating the study of the experiential aspects of mental life—perception, attention, thought, understanding—to marginal status. During the 1950s this all began to change, and psychologists began again (albeit with behavioral methods) to take up not only basic questions of perception and attention, but also more complex questions posed by the perception and understanding of art and music. Francès's book provided a model of how to proceed. With his broad scholarship Francès laid out a framework for the field of music perception and cognition. And as a highly creative experimenter he brought to bear a wide range of experimental methods to provide a solid beginning for a new understanding of how people hear and understand music.

Francès's study of musical composition at the Schola Cantorum in Paris led him to develop a cognitive approach to music perception, which remains at the core of the current approach in the field (see, for example, Dowling & Harwood, 1986). His 1958 book is a first empirical investigation of the link between music and language. As Patel (2010) has done more recently, Francès analyzed in a comprehensive way the cognitive foundations of musical syntax, rhetoric, and semantics. As in language, musical events were found to be integrated in a hierarchical way, and this integration results from implicit learning procedures that internalize the statistical distribution of tones and chords in western music. By so doing, Francès was anticipating work by Krumhansl (1990) as well as current research on implicit learning in music (for example, Saffran, Johnson, Aslin, & Newport, 1999). His book also addresses the differences between musically trained and untrained listeners, anticipating the issue raised by the concept of the "experienced listener" raised by Lerdahl and Jackendoff (1983). Francès also observed the difficulty both trained and untrained listeners have in following the rhetorical organization of western musical pieces, anticipating the debate concerning the psychological reality of large-scale structure opened more recently by Levinson (1997).

Currently one of the most striking issues developed by Francès relates to music-embodied cognition, anticipating the approach of Leman (2008). Francès developed the link between musical tension and relaxation instilled by the tonal hierarchy and rhythm, and the emotional experience encapsulated in sensory-motor schemas (Francès & Bruchon-Schweitzer, 1983). Listening to Western music reactivates these internalized bodily processes, and this contributes to the explanation of musical expression and emotional experience. Francès carried out pioneer research on music embodiment in

which one group of participants evaluates the expression of the musical stimuli, while the other group evaluates the expression of silent videos made by professional dancers dancing to the same music. The correspondence between the participants' responses was taken as an indication of the importance of implied body movement evoked by musical stimuli to musical expression. For all these reasons, Francès's book and his later research serve to guide and stimulate research over the past half century in music cognition, as Helmholtz served for psychoacoustics and auditory physiology.

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