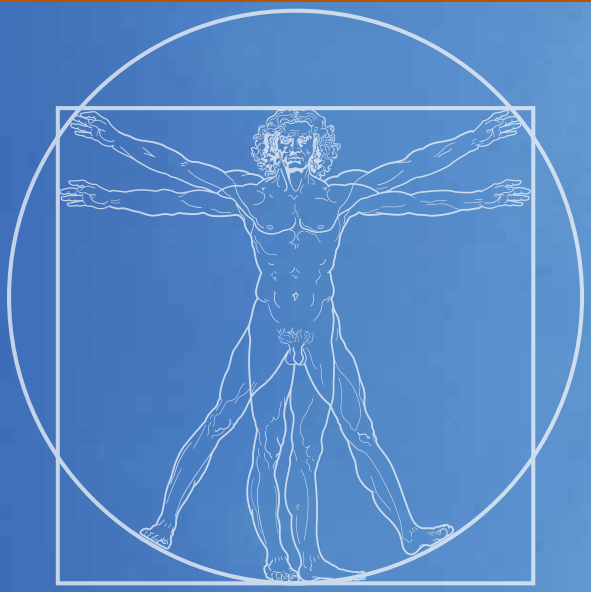

efpa
European Federation of Psychologists' Associations

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Italian Network of Psychologists' Associations

The 14th European Congress of Psychology

Milan, Italy 7-10 July 2015

Linking technology and psychology: feeding the mind, energy for life

ABSTRACT BOOK

ECP 2015
Abstract Book

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PS100
LONGITUDINAL INVESTIGATIONS INTO COGNITIVE AND NON-COGNITIVE EDUCATIONALLY RELEVANT TRAITS AND THEIR AETIOLOGY

B15. Development and education - Longitudinal analysis

Convenor	Sergey Malykh, Russian Academy of Education, Moscow - Russian Federation
Presenters	Maja Rodic, Tomsk State University, Tomsk - Russian Federation
	Margherita Malanchini , Goldsmiths University of London, London - United Kingdom
	Elaine White, Tomsk State University, Tomsk - Russian Federation
	Maria Grazia Tosto, Tomsk State University, Tomsk - Russian Federation
Discussant	Yulia Kovas, Goldsmiths University of London, London - United Kingdom

Longitudinal investigations into educationally relevant traits have provided insights into their development and the nature of their interrelationships. The proposed symposium presents a collection of investigations into individual differences in educationally relevant traits and their aetiologies using longitudinal methodologies.

The first talk (Rodic) is a large-scale cross-cultural study of cognitive development. The talk explores the longitudinal relationship between mathematics anxiety, mathematics achievement and mathematically related cognitive traits in 6-9-year-old children from the United Kingdom and Russia. The second talk (Malanchini) combines longitudinal and genetically sensitive methodologies to investigate individual differences in mathematics motivation and its association with school achievement in a large sample of twins. The talk discusses the stability of the aetiology of mathematics motivation and achievement as well as the origins of their longitudinal (age 9 – 16) relationships. The third talk (White) presents findings from a longitudinal, cross-cultural investigation of 11-12 year-old children in Russia and the United Kingdom. The study explores the developmental trajectories of school achievement, cognitive abilities, anxiety, self-efficacy and enjoyment in the context of mathematics and geography classrooms. The fourth study (Tosto) applies multivariate genetic analyses to investigate the aetiology and development of oral language and components of reading fluency and reading comprehension between childhood and adolescence (ages 7 – 16).

MATHS ANXIETY, EARLY ARITHMETIC AND MATHS RELATED COGNITIVE SKILLS: A LONGITUDINAL & CROSS-CULTURAL INVESTIGATION
Maja Rodic, Tatiana Tikhomireva, Sergey Malykh, Olga Bogdanova, Xinlin Zhou, Yulia Kovas
The longitudinal relationship between maths anxiety, maths achievement and mathematically related cognitive traits was investigated in Russian and UK early primary school children. The emerged cross-cultural similarities and differences are discussed.

MATHEMATICS MOTIVATION: STABILITY AND CHANGE IN ITS AETIOLOGY AND ITS LONGITUDINAL ASSOCIATION WITH MATHEMATICS ACHIEVEMENT
Margherita Malanchini, Zhe Wang, Robert Plomin, Yulia Kovas

We explored the origins of mathematics motivation and its development over time (age 9 to 16) in a large sample of twins. The longitudinal relationship between mathematics motivation and mathematical ability and achievement was also investigated.

A LONGITUDINAL CROSS-CULTURAL INVESTIGATION INTO POTENTIAL RELATIONSHIPS BETWEEN COGNITIVE AND NON-COGNITIVE FACTORS WITHIN THE MATHS AND GEOGRAPHY CLASSROOM

Elaine White, Efrosini Setakis, Tatiana Kolienko, Yulia Kovas

This longitudinal study followed UK and Russian students aged 11-12 years on multiple occasions across one academic year focusing on their maths and geography classrooms. Developmental trajectories were explored in relation to non-cognitive factors and cognitive abilities.

ORAL LANGUAGE, READING FLUENCY, READING COMPREHENSION: THE AETIOLOGICAL RELATIONSHIP BETWEEN 7, 12 & 16 YEARS. A UK TWIN-STUDY

Maria Grazia Tosto, Philip Dale, Robert Plomin, Emma Hayiou-Thomas

Genetic analyses on reading fluency, comprehension & language measured at 7, 12 & 16 in UK twins revealed genetic factors as responsible for stability & covariation within & across domains. Fluency & comprehension showed a partial different aetiology.