

# International Society for Intelligence Research (ISIR)

December 12-14, 2014 | Graz, Austria

15<sup>th</sup> Annual Conference

Program Overview

# Short schedule for ISIR conference 2014

DAY 1: Fri, Dec. 12

DAY 2: Sat, Dec. 13

DAY 3: Sun, Dec. 14

7:45-8:20	<b>Registration</b>	7:15-8:30	<b>Student Breakfast with LAA DEARY</b>		
8:20-8:30	<b>Opening remarks</b>				
8:30-9:30	<b>Lifetime Achievement Award (LAA) DEARY</b>	8:30-9:30	<b>Keynote Address CASPI &amp; MOFFITT</b>		
9:30-10:30	<b>Talks: Memory &amp; Cognitive Bias</b> (Gignac, Giofre, Teovanović)	9:30-10:50	<b>Talks: Intelligence &amp; Life outcomes</b> (Sörberg, Lynn, Meisenberg, Grabner)	9:00-10:00	<b>Holden Memorial Address PINKER</b>
10:30-10:50	<b>Break</b>	10:50-11:10	<b>Break</b>	10:00-10:20	<b>Break</b>
10:50-12:30	<b>Talks: Genetics</b> (Bates, Latvala, Rimfeld, Shakeshaft, Schofield)	11:10-12:30	<b>Symposium: Intellectual growth</b> (Demetriou, Spanoudis, Zebec, Kazi)	10:20-12:10	<b>Invited Presidential Symposium</b> (Silvia, Kell, Jauk, Jung, Vartanian)
12:30-14:00	<b>Lunch</b>	12:30-14:00	<b>Lunch</b>	12:10-13:40	<b>Lunch</b>
14:00-16:00	<b>Talks: Methods &amp; Psychometrics</b> (Kovacs, Caemmerer, Johnson, Wicherts, Pietschnig, van der Maas)	14:00-16:00	<b>Talks: Neuroscience</b> (Haier, Yeo, Chuderski, Nussbaumer, Santarnecchi, Ritchie)	13:40-14:20	<b>Talks: Creativity</b> (Primi, de Manzano)
16:00-16:30	<b>Break</b>	16:00-16:20	<b>Break</b>	14:20-15:20	<b>Talks: Other associations</b> (Pässler, Saulina, Davis)
16:30-17:30	<b>ISIR Business Meeting / Get your paper published</b> (Fraser)	16:20-17:20	<b>Talks: Education</b> (Berkowitz, Flore, Krammer)	15:20-15:40	<b>Break</b>
17:30-18:30	<b>Interview DEARY</b>	17:20-18:20	<b>President's Invited Address: STERN</b>	15:40-16:00	<b>Student Awards</b>
18:30-20:30	<b>Poster Session &amp; Elsevier Reception</b>	19:30	<b>Conference Banquet</b>		

*Note.* The order of names reflects the order of presentations.

## International Society for Intelligence Research (ISIR) - 2014 Program: Talks

### DAY 1: Friday, Dec. 12

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07:45 – 08:20	<b>Registration</b>
08:20 – 08:30	<b>Opening Remarks</b>   <i>Aljoscha Neubauer</i>
08:30 – 09:30	<b>Lifetime Achievement Award</b> My intelligence top ten: rewind/remixed   <i>Ian J. Deary</i> (Chair: <i>Aljoscha Neubauer</i> )
09:30 – 10:30	<b>Talks: Memory &amp; Cognitive Bias Chair: Gilles E. Gignac</b> Memory span: The ugly duckling of intellectual assessment   <i>G. E. Gignac</i> The relationship between working memory and intelligence in children: which is the influence of the scoring procedure?   <i>D. Giofré, I. C. Mammarella, &amp; C. Belacchi</i> Individual Differences in Cognitive Biases   <i>P. Teovanović, G. Knežević, &amp; L. Stankov</i>
10:30 – 10:50	<b>Break</b>
10:50 – 12:30	<b>Talks: Genetics Chair: Timothy C. Bates</b> The world's literature on gene × social class interactions on cognitive ability: A meta-analysis   <i>T. C. Bates &amp; E. Tucker-Drob</i> Paternal antisocial behavior and offspring cognitive ability: a population-based quasi-experimental study   <i>A. Latvala et al.</i> From mathematics to art - pleiotropy across academic subjects at the end of compulsory education in UK   <i>K. Rimfeld et al.</i> The genetic specificity of face perception   <i>N. C. Shakeshaft, K. L. Schofield, &amp; R. Plomin</i> Are general and social intelligence genetically distinct? Evidence from behavioural genetics   <i>K. L. Schofield, N. C. Shakeshaft, &amp; R. Plomin</i>
12:30 – 14:00	<b>Lunch</b>
14:00 – 16:00	<b>Talks: Methods &amp; Psychometrics* Chair: Jelte M. Wicherts</b> The nature of the positive manifold and its relation to models of intelligence   <i>K. Kovacs</i> Are we really overfactoring modern cognitive tests? Comparison of PCA, EFA, and CFA methods   <i>J. M. Caemmerer, T. Z. Keith, &amp; M. R. Reynolds</i> Standard formulas cannot correct distortions in results due to selection for cognitive ability in research studies   <i>W. Johnson &amp; I. J. Deary</i> Publication bias and the decline effect in intelligence research   <i>J. M. Wicherts</i> 105 years of IQ gains and counting? A meta-analysis of the Flynn effect (1909-2013)   <i>J. Pietschnig &amp; M. Voracek</i> Computer adaptive IQ tests   <i>H. L. J. van der Maas</i>
16:00 – 16:30	<b>Break</b>
16:30 – 17:30	<b>ISIR Business Meeting* / Get your paper published**</b>   <i>Adam Fraser</i>
17:30 – 18:30	<b>Distinguished Interview*</b>   <i>Ian Deary</i> (Interviewer: <i>David Lubinski</i> ; Introduction: <i>D.K. Detterman</i> )
18:30 – 20:30	<b>Poster Session &amp; Elsevier Reception***</b>

All conference presentations will take place in the conference hotel Weitzer / room *Styria* (Friday morning, Saturday, and Sunday).

\* On Friday afternoon, the talk session, the Business meeting and the Distinguished Interview will take place in room *Riverside*.

\*\* The special session "Get your paper published" by Adam Fraser will take place on Friday 16:30-17:30 in room *Deep Purple*.

\*\*\* The poster session will take place in room *Nikolai*.

## DAY 2: Saturday, Dec. 13

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07:15 – 08:30	<b>Student Breakfast with Lifetime Achievement Award Winner</b>   <i>Ian Deary</i>
08:30 – 09:30	<b>Keynote Address</b> Early childhood origins of an ultra-high-cost segment of the population   <i>Terrie E. Moffitt &amp; Avshalom Caspi (Chair: David Lubinski)</i>
09:30 – 10:50	<b>Talks: Intelligence &amp; Life outcomes</b> <i>Chair: Roland H. Grabner</i> Does high intelligence improve prognosis? Associations of intelligence with recurrence and mortality in Swedish men with coronary heart disease   <i>A. Sörberg et al.</i> Differences in cognitive ability, per capita income, infant mortality, fertility and latitude across the states of India   <i>R. Lynn &amp; P. Yadav</i> Dysgenic trends in the United States during the 20th century: toward finding the causes   <i>G. Meisenberg &amp; M. Woodley</i> The predictive validity of intelligence for expertise development in tournament chess: An 8-year longitudinal study   <i>R. H. Grabner, A. C. Neubauer, &amp; E. Stern</i>
10:50 – 11:10	<b>Break</b>
11:10 – 12:30	<b>Symposium: Intellectual growth</b> <i>Organizer &amp; Chair: Andreas Demetriou</i> Cycles in speed - working memory - g relations: towards a developmental-differential theory of the mind   <i>A. Demetriou</i> Relations between speed, working memory, and intelligence from preschool to adulthood: Structural equation modeling of 14 studies   <i>G. Spanoudis</i> Capturing how g is expressed in successive developmental phases: A longitudinal study from 8 to 17 Years of age   <i>M. Zebec</i> Embedding cognizance in intellectual development   <i>S. Kazi</i>
12:30 – 14:00	<b>Lunch</b>
14:00 – 16:00	<b>Talks: Neuroscience</b> <i>Chair: Richard J. Haier</i> Individual differences vs group averages: Time to choose one and abandon the other for brain imaging studies?   <i>R. J. Haier et al.</i> Global network metrics of structural brain organization: Relationships with intelligence in healthy controls and individuals with schizophrenia   <i>R. A. Yeo et al.</i> From neural oscillations to complex cognition: Simulating the effect of the theta-to-gamma cycle length ratio on analogical reasoning   <i>A. Chuderski &amp; K. Andrejczyk</i> The impact of task demand on neural efficiency during working memory demands   <i>D. Nussbaumer, R. H. Grabner, &amp; E. Stern</i> Intelligence level correlates with brain resilience to systematic and random insults   <i>E. Santarnecchi et al.</i> Coupled changes in brain white matter structure and fluid intelligence in later life   <i>S. J. Ritchie et al.</i>
16:00 – 16:20	<b>Break</b>

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**DAY 2: Saturday, Dec. 13 - CONTINUED**

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- 16:20 – 17:20 **Talks: Education Chair: Michal Berkowitz**  
Cognitive variability among STEM students: Spatial ability, general abilities and academic field | *M. Berkowitz & E. Stern*  
Does stereotype threat influence test performance of girls in stereotyped domains? A meta-analysis | *P. C. Flore & J. M. Wicherts*  
General mental ability over and above domain-specific measures: Predicting academic achievement in a 3-year longitudinal study on college admission | *G. Krammer*
- 17:20 – 18:20 **President's Invited Address**  
What exactly makes the difference? The impact of intelligence on academic learning | *Elsbeth Stern (Chair: Aljoscha Neubauer)*
- 19:30 **Conference Banquet (Landhauskeller, see p. III)**

**DAY 3: Sunday, Dec. 14**

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- 09:00 – 10:00 **Holden Memorial Address**  
The elephant in the room: Talking about individual differences to the press | *Susan Pinker (Chair: Yulia Kovas)*
- 10:00 – 10:20 **Break**
- 10:20 – 12:10 **Invited Presidential Symposium Chairs: Aljoscha Neubauer & Mathias Benedek**  
Why is the intelligence and divergent-thinking literature so divergent? | *P. J. Silvia*  
Replicable evidence for outstanding creative accomplishment among the top .01% of cognitive ability | *H. Kell et al.*  
Intelligence and creativity: Bridges, gaps, and overlaps | *E. Jauk et al.*  
The reason behind creative cognition | *R. E. Jung*  
The prospects and perils of cognitive (brain) training for improving cognition: The case for creativity | *O. Vartanian*
- 12:10 – 13:40 **Lunch**
- 13:40 – 14:20 **Talks: Creativity Chair: Ricardo Primi**  
Using many-facet Rasch measurement in assessment of creativity with divergent productions of metaphors | *R. Primi & T. de Cássia Nakano*  
The nature and nurture of creative achievement, intelligence their interrelation | *Ö. de Manzano, M. A. Mosing, & F. Ullén*
- 14:20 – 15:20 **Talks: Other associations Chair: Katja Pässler**  
Interests and intelligence: a meta-analysis | *K. Pässler, A. Beinicke, & B. Hell*  
Peculiarities of sexual dimorphism in adolescents with high level of general intelligence | *E. B. Saulina*  
Raven's Colored Progressive Matrices (RCPM) at the lower end of the educational continuum: assessing variation among the Tsimane, a traditional and transitioning population | *H. E. Davis et al.*
- 15:20 – 15:40 **Break**
- 15:40 – 16:00 **Student Awards & Farewell**

## International Society for Intelligence Research (ISIR) - 2014 Program: Poster Presentations

### Poster Symposium: Group differences

1. By their words ye shall know them: Evidence of dysgenic trends in vocabulary usage since the mid 19th century | *M. A. Woodley et al.*
2. It's getting better all the time!: An empirical test of the Lennon-McCartney hypothesis | *J. te Nijenhuis & I. Duursma*
3. The cognitive competences of immigrants and natives across the world: An analysis of gaps, causes and impact | *H. Rindermann & T. Thompson*
4. A meta-analysis of Roma intelligence | *D. Jurášek, J. te Nijenhuis & J. Čvorović*
5. Genetic distances and IQ differences: a cross-national study | *D. Becker*
6. National intelligence and personality: Between the heart and the mind of nations | *M. Stolarski & M. Zajenkowski*

### Poster Symposium: Longitudinal and cross-sectional investigations into individual differences in intelligence and educationally relevant traits.

7. Cross-cultural investigation of Raven's Progressive Matrices scores across the school-age years | *T. Tikhomirova et al.*
8. A longitudinal investigation into potential relationships between cognitive and non-cognitive factors within the classroom | *E. White & Y. Kovas*
9. Longitudinal, genetically informative study of intelligence on Russian adolescents | *I. Voronin & S. Malykh*
10. Do achievement and motivation for learning a second language influence each other longitudinally beyond the impact of general intelligence and emotion regulation factors? | *M. Malanchini et al.*

### Education and Life Outcomes

11. Abstract reasoning profiles in maths and non-maths students | *P. A. Edelsbrunner, L. Schalk, & E. Stern*
12. The good, the bad, and the average – a latent class analysis of cognitive and non-cognitive abilities | *J. Diedrich & A. C. Neubauer*
13. High- and low-achievers benefited equally from contrasted algebra materials. *E. Ziegler & E. Stern*
14. Cross-sectional study on the relations between intelligence and executive functions among Kosovar preschool children | *F. R. Uka & A. von Suchodoletz*
15. Spatial complexity of character based writing systems and arithmetic in primary school: a longitudinal study | *M. Rodic et al.*
16. Early-life intelligence predicts midlife biological age in a population-representative birth cohort | *J. D. Schaefer et al.*

### **Genetics & Biological Basis**

17. Common genetic influences on intelligence and simple reaction time | *G. Madison, M. A. Mosing, & F. Ullén*
18. Digit ratio (2D:4D) and cognitive abilities: A meta-analytical field synopsis and critical evaluation of research | *M. Voracek, S. Stieger, & U. S. Tran*
19. Theta-gamma cross-frequency coupling relates to the level of human intelligence | *A. Pahor & N. Jaušovec*
20. Sex differences in the IQ-white matter microstructure relationship: A DTI study. | *A.C. Neubauer et al.*

### **Memory and Strategies**

21. Conceptual abilities as a basis of expertise | *O. V. Shcherbakova & D. N. Makarova*
22. Intelligence and the development of methodological skills in higher education: The case of information literacy | *T. Rosman & A.-K. Mayer*
23. The impact of fluid intelligence on strategy selection and on neural efficiency of strategy execution in mathematical cognition | *A.C. Dix, I. Wartenburger & E. van der Meer*
24. The structure of general knowledge: Results from a state-of-the-art latent variable analysis among Austrian high-school students | *U. S. Tran & M. Voracek*
25. The contribution of temporary storage to fluid intelligence: evidence from both Brown-Peterson and complex span tasks | *K. Schweizer, T. Wang, & X. Ren*
26. Intelligence and aggression: Identifying underlying mechanisms | *M. Zajenkowski*

### **Methods and Psychometrics**

27. How knowing the rules affects solving the Raven Progressive Matrices test | *P. Loesche, J. Wiley, & M. Hasselhorn*
28. Test instruction matters! The effect of instruction on different intelligence test tasks | *C. Muller, F. Preckel & R. Martin*
29. Digit span and the inverse Spearman effect: Within- and between-groups tests | *Y. Ganzach*