

## Creativity: An interview with Prof. Todd Lubart on the multivariate approach to creativity

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## Ustvarjalnost: intervju s prof. Toddom Lubartom o multivariatnem pristopu k ustvarjalnosti

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Todd Lubart is Professor of Psychology at the Institute of Psychology - Université Paris Descartes - Sorbonne Paris Cité and the Director of the scientific laboratory “LATI” (Laboratoire Adaptations Travail-Individu; It is worth to mention that this Institute has an important historical value: namely, it is the institution within which the first experimental psychology laboratory in France was founded more than 100 years ago.)

With R. Sternberg, he is the creator of the investment theory of creativity, which states that creative people buy low and sell high in the world of ideas. His research work on creativity is extensive and focuses on creative potential and creative giftedness, the role of individual differences and the effect of the context on creative production.

He is author or co-author of approximately 100 scientific reports including books *Defying the crowd: Cultivating creativity in a culture of conformity* (1995, with R. Sternberg), *Psychologie de la créativité* (2003, with C. Mouchiroud, S. Tordjman, and F. Zenasni), *Enfants Exceptionnels* (2006), and *Psychologie différentielle* (2011, with X. Caroff, C. Mouchiroud, M. Pereira da Costa, and F. Zenasni). He is a member of many national and international scientific boards, keynote speaker on different conferences, and co-founder of the International Centre for Innovation in Education (ICIE).

Finally, Todd Lubart, with Maud Besançon, and Baptiste Barbot is the author of EPoC, a new measure of creative potential in children, which was the main initiative for our conversation. Actually, I recently visited Prof. Lubart at LATI and spent a couple of days with his research team. My first impressions were deeply inspiring: creative people in creative environment creating instruments for creativity assessment.

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**In the framework of the current discussion on measurement issues of creativity, the EPoC is a “hot topic”. What is EPoC? What differentiates this new instrument from approx. 250 already existing instruments for measuring creativity in the world?**

EPoC is an Evaluation of Potential Creativity, designed for children and adolescents. It measures divergent-exploratory creative thinking and convergent-integrative creative thinking in several domains of creative activity. The domains are artistic-graphic and verbal-linguistic, but also the social, scientific, mathematic domains which are under development. Other existing instruments tend to focus on only one aspect of creative thinking (such as divergent thinking), or only measure creative potential in one domain (such as artistic graphic). EPoC involves some innovations in scoring as well, so it is relatively easy to score the productions, taking into account their cultural context and meaning.

**Can you tell us more about the theory behind the construction of EPoC? How does it fit with the investment approach?**

The EPoC battery measures the potential for creativity by engaging children and adolescents in the process of creation in a substantive domain. For example, a child is asked to generate many endings for a story (divergent, literary) and construct a story based on three characters that are provided (convergent literary). In each task, the child can bring into play (“invest”) his or her personal resources, such as their cognitive abilities, personality traits, motivation, etc. The EPoC instrument conceives of creative potential as a dynamic entity, which involves two process modes (divergent-exploratory, and convergent-integrative). As a child (or adolescent) engages in the EPoC tasks, the individual’s cognitive and conative resources (thinking abilities, personality and motivation) can be activated and they enter the productive process as the individual judges fit. The extent to which an individual produces work evaluated as creative in this context, compared to other individuals who have completed the same task is a measure of the person’s creative potential. It is relevant to speak of creative potential rather than creative accomplishment because the work produced is the reaction to an elicit request to see what a person can do. In this logic, it is best to inform the individual that the goal is to be as creative as possible. In this way, the maximum potential can be observed..

**What research have you done supporting the validity of EPoC?**

We have examined the structure of the EPoC tasks, with good support for the expected domain and process-related factors. We have examined the convergent and discriminant validity, finding that EPoC relates to other existing creativity measures in coherent ways, and is relatively unrelated to measures of traditional intelligence, such as the WISC.

**What are the implications of the EPoC?**

EPoC provides a profile for each individual indicating the ability to engage in divergent-exploratory, and convergent-integrative thinking, by domain of creative activity (verbal-literary, graphic-artistic, social interaction, ...). Thus, there are implications for identifying creative potential, and implications for developing it based on an individual’s profile. In terms of identifying creative potential, EPoC allows the whole spectrum of ability (low to high) to be assessed. If the identification of the creative gifted is a goal, these high potential children and adolescents can be detected. Often high creative potential expresses itself in one domain rather than in a general way. In terms of developing creativity, it is useful to look at a child’s profile (divergent-exploratory, convergent-integrative) by domain (graphic, verbal, ...) and design a training program that fits the child best. This differentiated educational approach maximizes the chance to foster creativity. Finally, there is a possibility to use EPoC for guidance counselling purposes. Based on a person’s potential, there may be certain occupational fields that correspond best. For example, a person with high verbal linguistic creative potential may be oriented toward a writing career, whereas a person with high social creative potential could best be oriented toward a different career, perhaps managerial in nature.

**Is there anything else that is worth remembering about EPoC development and test usage?**

EPoC is a test that can measure the potential for creative thinking, taking into account two processing modes for each content domain of creative activity. Actually, the verbal-literary and graphic-artistic are fully developed. The social interaction, scientific, and mathematical domains are under development. Also, norms are being developed for children and adolescents in several international versions (French, English, German, Turkish, Arabic, ...).

**There are plenty of concepts related to abilities and it is easy to get confused about their meaning(s); how can we understand the differences between creative potential, creative talent, and creative giftedness?**

Creative potential refers to a latent capacity to produce novel, original and contextually appropriate work. It can be put into play, or remain latent. Creative talent refers to the actual realization of creative potential in real-life works; these creative accomplishments are the sign of creative talent. Creative giftedness is a high level of creative potential, it can be defined by a cut-off such as two standard deviations above the population norm for creative potential, or defined by other cut-offs such as the top ten percent of creative potential.

**How does creativity develop through the lifespan? Are there ups and downs or changes in domains and overall nature of the construct? What does it mean to be creative in childhood in comparison with, for example, in older years?**

Creative potential can evolve during childhood and adulthood. Creativity is influenced by environmental conditions, life experiences, and interacts with basic cognitive developmental trends during “regular” human development. We can situate an individual’s creative potential (or creative talent) with respect to other individuals of the same age and cultural group. The relative position of an individual with respect to the population can vary across the lifespan. There are numerous studies on these developmental trends.

**Regarding your references on creativity, you are among the best-known psychologists worldwide; what is the “secret” of your eminence? Individualism, cooperation, competition? What or/and who dominantly influenced your work and your commitment to the topic of creativity?**

If my work has drawn interest from those working on creativity, I am of course happy that the research and practitioner communities find the ideas and results valuable. I have been pursuing my line of work since my PhD work in the 1990’s. I do many cooperative projects and have been lucky to have many talented colleagues.

One of the main influences was Bob Sternberg with whom I did my PhD. In general, I have always found creative work, creative domains of expression to be intrinsically interesting. I had some initial training in fine arts before turning to psychology.

**“An American psychologist in one of the cradles of European psychology”: how did you survive, what were the main challenges? Are cultural issues important in the highly scientific context, too?**

It was interesting to discover trends in psychology that are more developed in the European and the French context. In particular, the differential psychology issues were enriching. The main challenge was to learn the technical terms in French.

**You started researching creativity more than 20 years ago at Yale University. What was typical of the research climate on the topic of creativity at that time and comparing it to nowadays? Somehow, I am stuck with the Guilford’s quotation from a half of the century ago about the extremely low interest of psychology in researching creativity ... Can you comment on this issue from today’s viewpoint?**

The topic of creativity has seen a rapidly expanding interest among researchers and in the larger society. Indeed, there are several journals now focusing on creativity, and growing interdisciplinary interest, which is a rich source

of ideas and collaborations. However, creativity remains much less studied compared to topics such as memory, or stereotype. There is more work on creativity but there is more work on every topic in psychology.

**What line of research are you currently pursuing?**

Together with my colleagues at LATI (our research lab in Paris), I am working on studies of the creative process in several fields (art, technical invention, ...), the environment favourable to creativity (in particular the use of virtual environments) and finally, new measures of creative thinking. In addition to EPoC, we are working on measures for adults, notably a multivariate measure called the Creative Profiler.

**How do you see the contemporary trends and further developments in creativity?**

There is a clear expansion of interest on the development of creativity, and work on the efficiency of creativity techniques is needed. Another key trend is work on the brain correlates of creative activity. Finally, a third trend is the interdisciplinary approach, going beyond psychology to study creativity.

**Are nowadays adults and children more or less creative than they were in the past?**

It is hard to say if people are more or less creative compared to past generations. This is due to a lack of comparison points or instruments to assess creativity. Also, now creativity is getting more interest, so educators are starting to look more at the topic. I think there are many initiatives to foster creativity in schools, but these remain isolated attempts. In general, there is a vast opportunity to educate creativity.

**In your latest talks on creativity development, e.g. the Keynote at 20<sup>th</sup> International World Council for Gifted and Talented Children (2013) or the Keynote at The International Conference on Excellence, Creativity, and Innovation in Basic & Higher Education (2014) you challenged the role of educational systems in nurturing and stimulating creativity. In your opinion, which are the main educational issues that we will have to face in the future?**

There is a need for a coordinated approach to educating creativity. This involves measuring creative potential, providing role models through teachers and parents, providing material support through curricula and classroom environments, and providing school management that values creativity as an educational goal. All of these are feasible with current tools. However, we have not yet coordinated them.