



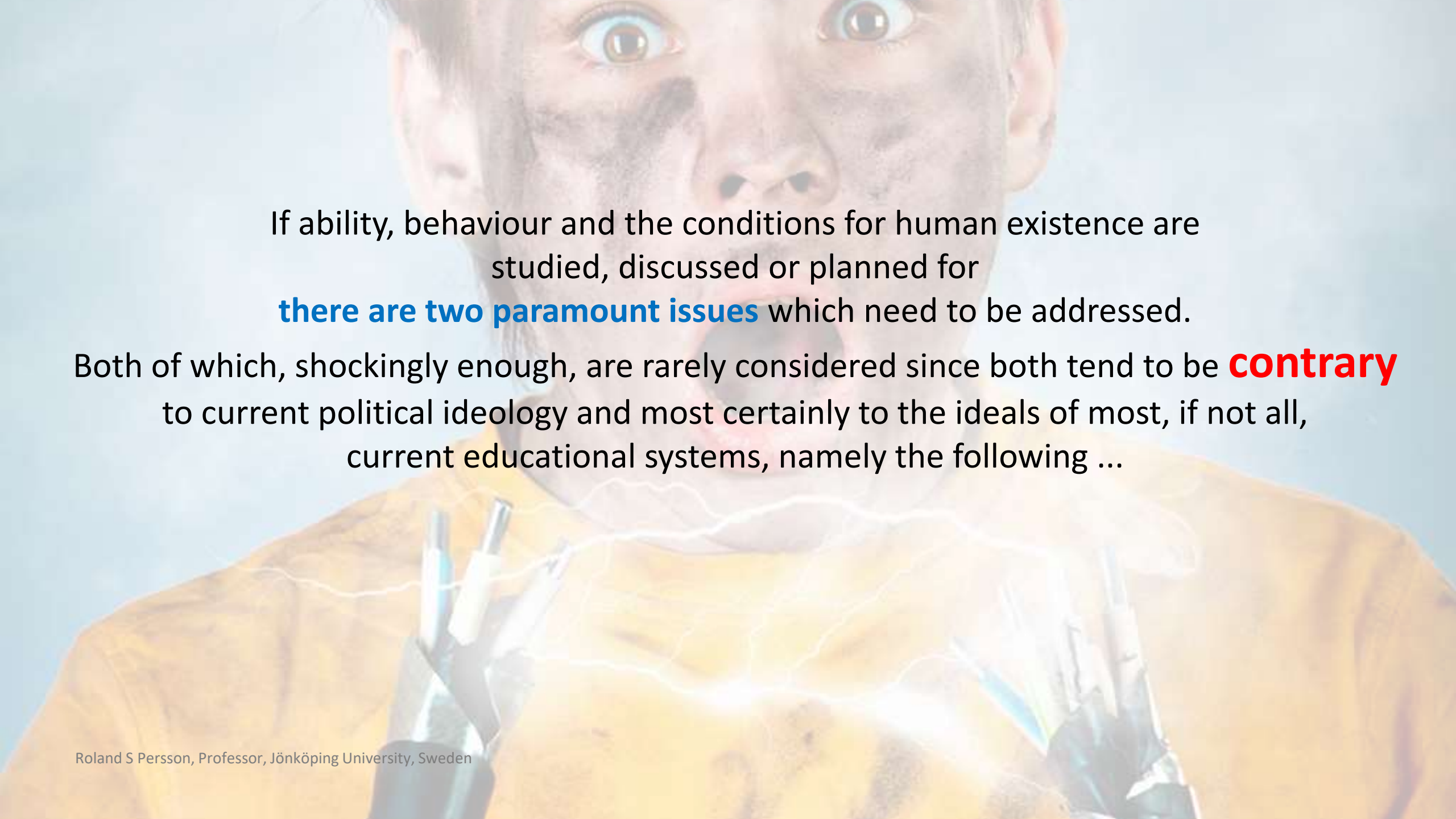
Do you understand what it means to be **e**x**C**e**p**t**i****O**nal?

Jönköping University 28 February 2018
Katedralskolan, Skara, Sweden, International Exchange Programme



The aim of today's presentation is ...

- to communicate an understanding of scientific foundations most often discarded in general education, and always ignored in the education of the gifted and talented
- to suggest what gifted education needs to include when preparing gifted and talented school children for everyday and professional life



If ability, behaviour and the conditions for human existence are studied, discussed or planned for **there are two paramount issues** which need to be addressed.

Both of which, shockingly enough, are rarely considered since both tend to be **contrary** to current political ideology and most certainly to the ideals of most, if not all, current educational systems, namely the following ...

- 
- **The genetic and evolutionary basis for biological life. And related to and dependent upon this ...**
 - **... is also the inevitability and consequences of normal distribution**

Both these foundations of established knowledge are necessary for understanding all behaviour correctly but even more so when discussing 'giftedness.'

Both however are being ignored due to a global change of basic values

Salamanca statement (1994, 2§)

We believe and proclaim that ...



United Nations
Educational, Scientific and
Cultural Organization

- Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning
- **Every child has unique characteristics, interests, abilities and learning needs,**
- Education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs

... However, the World has changed dramatically since the Salamanca Statement: Schools and other education are now exclusively tools for economic growth. **PISA** constitutes the instrument by which the success of a school system is measured in comparison to a country's prospects and economic objectives.

Hanushek, E. A. M., & Wössmann, L. (2007, February). *The role of education quality in economic growth*. World Bank research working paper no. 4122. <http://ssrn.com/abstract=960379> (Besökt 13 april 2012).

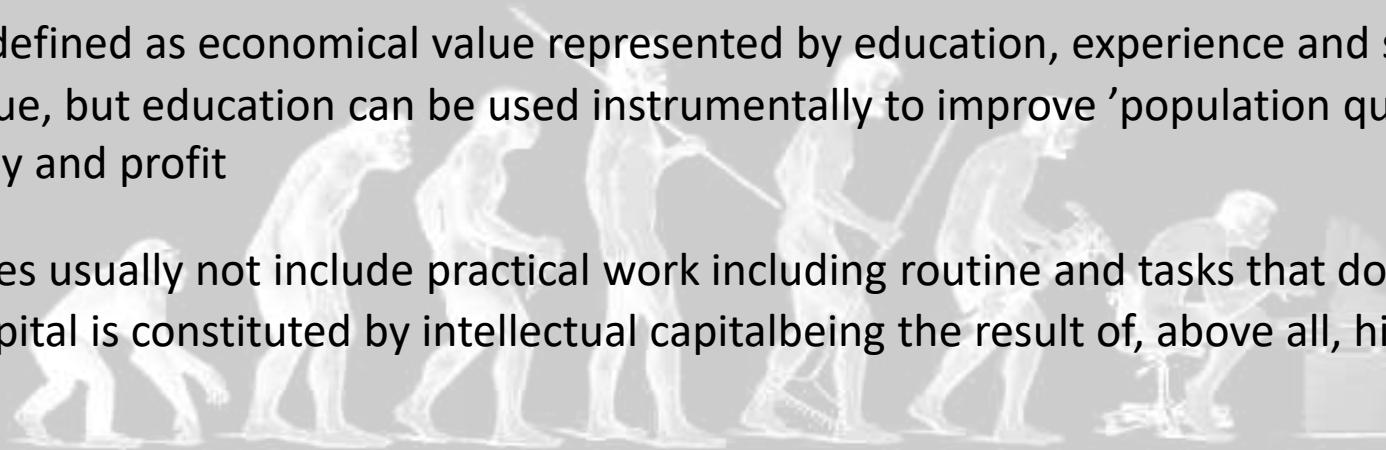
Lundgren, U. P. (2011). PISA as a political instrument: One history behind the formulating of the PISA program. In M. A. Pereyra, H. G. Kotthof & R. Cowen (Eds.), *PISA under examination. Changing knowledge, changing tests, and changing schools* (pp. 15-30). Rotterdam, NL: Sense Publishers.

HOMO ECONOMICUS

Pupils (and students) have since 1994 become investments and therefore **human capital**

Human capital is defined as economical value represented by education, experience and skills. All work does not represent the same value, but education can be used instrumentally to improve 'population quality' to be utilised for the purpose of economy and profit

Human capital does usually not include practical work including routine and tasks that do not require specialised training. The human capital is constituted by intellectual capital being the result of, above all, higher education.



Schultz, T. W. (1981). *Investing in people. The economics of population quality*. Berkley, CA: The University of California Press.

Stewart, T. A. (1997). *Intellectual capital. The new wealth of organizations*. London: Nicolas Brearley.

Giftedness as a behavioural phenomenon has largely lost its roots in established and irrefutable scientific fact, which is sadly true also of much of any education and its research.

Most has systematically become instruments of ideology, political and cultural, in the Neoliberal era of the

Global Knowledge Economy



A few examples of **value change** for the sake of economic growth

Example 1: Reconstructing gifted pupils as a behavioural phenomenon of a **FEW** into a **demand** characteristic for **ALL**

In **1984** giftedness, talent and its education were studied and put into educational practice out of interest and for the sole needs of the gifted and talented.



In **2014** both education and giftedness have become instrumental to the world economy and the potential of the gifted to increase economic growth. Their own needs and idiosyncracies have become largely uninteresting:

Kaufmann, S. B. (2013). *Ungifted. Intelligence redefined*. New York: Basic Books.

Persson, R. S. (2015). High ability and dreams of innovation and prosperity in the emerging global knowledge economy: A critical analysis of changing orientations in research and *International Journal for Talent Development and Creativity*, 2(2), 15-34.



A few examples of **value change** for the sake of economic growth

...so the politicised advocates of gifted education now say:

- They are extraordinary human capital for all of society (Bleske-Recheck, Lubinski & Benbow (2004))
- The extremely smart ones are also the extremely wealthy ones (Wai, 2012)
- All scholars and practitioners of education should always focus on the significance of the highly able for future prosperity (Clinkenbeard, 2007)

Kaufmann, S. B. (2013). *Ungifted. Intelligence redefined*. New York: Basic Books.

Persson, R. S. (2015). High ability and dreams of innovation and prosperity in the emerging global knowledge economy: A critical analysis of changing orientations in research and *International Journal for Talent Development and Creativity*, 2(2), 15-34.



A few examples of value change for the sake of economic growth

Example 2: Turning **overachievement** from a psychological problem to a positive attribute for the sake of economic growth; and turning **underachievement** from signalling a need for support into an accountability stigma signalling **'poor quality'**.

In **1951** overachievement was defined as 'doing more than required intrinsically motivated which, of course, is often typical of gifted individuals in their domains of interest (Kurtz & Swenson, 1951)



Beginning in the **1990s**, with the rise of the Knowledge Economy and accountability, achievement has rather become a requirement. **Overachievement is now subject to system control, hence constituting extrinsic motivation, and is necessary for economical growth** (Lundgren, 2011; Sallis, 2002)

Kurtz, J. J., & Swenson, E. J. (1951). Factors related to over-achievement and under-achievement in school. *The School Review*, 59(8), 472-480.

Lundgren, U. P. (2011). PISA as a political instrument: One history behind the formulating of the PISA program. In M. A. Pereyra, H. G. Kotthof & R. Cowen (Eds.), *PISA under examination. Changing knowledge, changing tests, and changing schools* (pp. 15-30). Rotterdam, NL: Sense Publishers.

Persson, R. S. (2017). Accountable talent: under and overachievement as investible human capital. In R. Klingner (Ed.), *Gifted underachiever* (pp. 1-32). New York: Nova Science Publishers.

Sallis, E. (2008). *Total quality management in education* (3rd ed.). Abingdon, UK: Taylor & Francis.

Why is overachievement now the **norm** and underachievement currently **a stigma**?

... because individuals capable of extreme achievement (as adults) represent a disproportionately large percentage of both production and achievements!

O'Boyle and Aguinis (2012) studied who, in a multitude of fields or pursuit, were responsible for achievements and production?

- 198 different groups were studied: football and basketball players, entertainers (authors and actors), politicians and researchers from 50 different disciplines – in all, the total sample consisted of **633 263 individuals**.
- The researchers found that the largest percentage of achievement and production is generated by a small group of the total studied population.

Researchers termed this group **the achievement elite**.

- 66 – 83% of all participants achieved less than the average, but ...
- 10 – 26% av all achievement and production was generated by a mere 1 – 5% of all participants. These were 'The Achievemnt Elite'.

... No wonder the Global Knowledge Economy and its industry in search of innovation and growth want to hire the achievement elite and are less keen to employ others!

A Market View: Talent Differentiation for Production

The Stars



have high ability, high individual achievement, are team workers and have a considerable amount of “soft skills”; that is, they have interpersonal sensitivity, persuasiveness, emotional resilience, charisma and people skills.

The Razors



are “too sharp for their own good”. As competent as a Star, but too aggressive and lacking in sensitivity and people skills; they are not considered suitable for team work

- *More often than not psychologically disordered (psychopathic tendencies)*

Brown, P., & Hesketh, A. (2004). *The mismanagement of talent. Employability and jobs in the knowledge economy*. Oxford, UK: Oxford University Press.

The Safe Bets



Not as competent as Stars and Razors, but are still employable and represent reliability. This is an employee who may or may not shine in the future, but is willing to be a team player. Hence, this employee is also a team player.



The Iffys



Are “close but oh so far”. These are the ones who rarely are selected in a talent employment process. While often very competent, they fail to convince the employer as being “more than just clever”. They appear to interviewers and recruiters as having a lack of commitment, lack of business awareness, and a lack of enthusiasm and drive. They do have social skills and are often liked by others, but are seen as naïve and too idealistic by prospective employers.

- Usually the creative geniuses remain undiscovered and if employed rarely fit into the organisation

Brown, P., & Hesketh, A. (2004). *The mismanagement of talent. Employability and jobs in the knowledge economy*. Oxford, UK: Oxford University Press.



Gifted Education Problem 1

The genetic and evolutionary basis for biological life

Why are we not all exactly the same?

Organisms	Number of building blocks per genome	Number of genes in each genome
Fruit fly (<i>Drosophila</i>)	120.000.000	10.000
Mouse	3.000.000.000	80.000
Human (<i>Homo sapiens</i>)	3.000.000.000	80.000

1. All humans have the same genome in terms of number of building blocks.
2. However, early genetic research knew quite early on, that genome content was not 100% shared between every member of a species, including humans. Members of any species were, in fact, only 99.5% the same
3. More recent genetic research—the result of having charted the entire human genome—has demonstrated that humans differ much more than first thought. Little depending on the manner of calculations and which variables to consider **humans differ genetically by up to 12%** because of the fact that some inherited DNA Sequences, for yet unknown reasons, are not replicated into the next generation of species members.

Why are we not all exactly the same?

4. These 12% or so have an immense significance for how we must understand human behaviour. This genetic variation is not inherited and, above all, **cannot be predicted. It is completely random. This randomness is evolutions' laboratory in which to find aspects of behaviour that over time will prove to have survival value.**
5. Successful mutations create evolutionary fitness. While less successful mutations will invariably die out the successful ones will spread. Within approximately 25 000 years they will have become part of every species member's genome

<http://news.bbc.co.uk/2/hi/science/nature/6174510.stm>
http://genetics.thetech.org/original_news/news38
https://en.wikipedia.org/wiki/Human_genetic_variation

Witherspoon *et al.*, (2007). Genetic similarities within and between human populations, *Genetics*, 176, 351-359.

cultural universals

...constitute that which we all have in common *because* of the shared genome of Homo Sapiens – and have always had!

There are about 400 universals of which some are verified and others are more hypothetical

A few examples

Aesthetics	Narratives/Stories	Self-control
Perceptions of illness	A concept of numbers	A positive self-image
A name for the colour black	Plan for the future	Dislike of stinginess
Divisions into age groups and groups of relations	Unequal social status (prestige)	Thumb-sucking as an infant
Conflict management	Promises	Toys and play
Etiquette	Psychological defence mechanisms	Hospitality
An admiration for generosity	Right-handedness as preferred norm	Rules for inheritance
Appreciation of good hygiene	Two genders (man and woman)	Collective identity
Leadership	Fear of snakes	Age gives status
Magic	Standards and values	Fortune-telling

Brown, D. E. (1991). *Human universals*. New York: McGraw-Hill.

Norenzayan, A., & Heine, S. J. (2005). Psychological universals: what are they and how can we know? *Psychological Bulletin*, 131(5), 763-784.

Policy tends to emphasise the importance of nurture

The Swedish Agency for Schools, for example, stated the following in a report (2012:379):

inherited ability or talent play a **minor role for top achievement in school**


Shakeshaft *et al.*, (2013), however, studying 11.000 English 16-year old pupils proving that heritability is most certainly an important factor in how well you achieve top marks in key subjects such as English (52% heritability) and Maths (58% heritability) – on average 52% heritability for all studied key subjects.

Hence, the Swedish National Agency for Schools, had they relied on empirical research rather than ideology, ought to have more correctly concluded:

inherited ability or talent play a **very important role for top achievement in school**

Shakeshaft NG, Trzaskowski M, McMillan A, Rimfeld K, Krapohl E, et al. (2013) Strong Genetic Influence on a UK Nationwide Test of Educational Achievement at the End of Compulsory Education at Age 16. *PLoS ONE* 8(12): e80341. doi:10.1371/journal.pone.0080341

Skolverket (2012:379). Högpresterande elever, höga prestationer och undervisningen. Stockholm: Fritzes.



It is never either nature **Or** nurture! The two cannot be separated

Because of evolutionary adaptation both function together in a very complex manner which, in addition, how they function together differ between individuals and abilities!

**No-one is 'gifted' without genetic prerequisites
and no-one can become gifted by deliberate practice and/or good teaching alone**

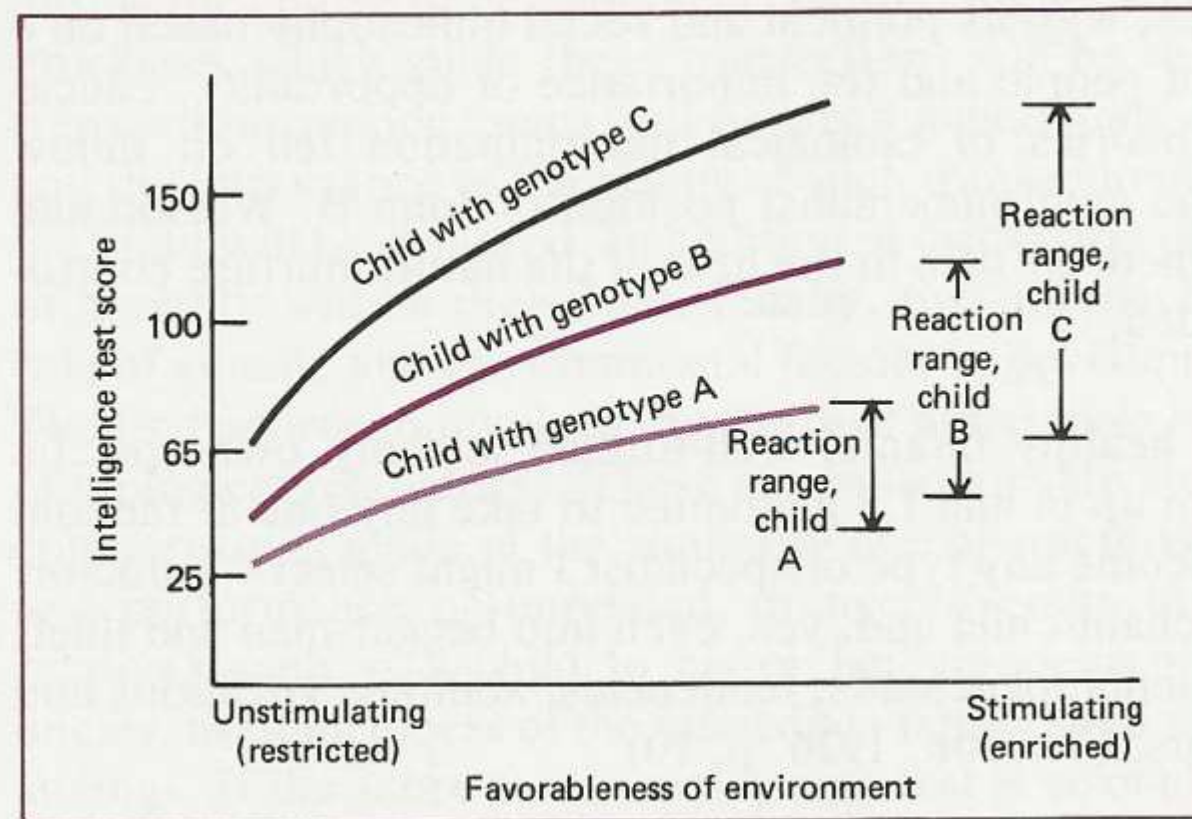
The interplay between genes and environment

Inherited genotypes differ in their capacity to develop

Reaction range: a specific genotype's ability to dynamically react to the environment

Canalisation: One genotype may be more 'canalised' than another meaning that it is more set in its ways and cannot dynamically react to the environment. Infant's nonsensical babbling is one such behaviour: both normally hearing and hearing impaired children babble!

Niche-picking: We all, unaware, seek out environments in which our genomes can be optimised. We do so even on a molecular level.





- Genes are responsible for about half of sports achievements in an entire population.
- Genes are also responsible for about half of how anyone reacts to physical training
- Genes are the most important factor in explaining differences in sports achievements between men and women

Guth, L. M., & Roth, S. M. (2013). Genetic influence on athletic performance. *Current Opinion in Pediatrics*, 25(6), 653-658.
Hopkins, A (2001, January to April). Genes and training for athletic performance. *Sport Science*, 5(1) <http://www.sportsci.org/2001/1/index.html>

PERSONALITY VARIABLES ...

have proven to be inherited by 30-60% little depending on characteristic. The result of this is that 40-70% of what we traditionally have termed 'personality' is decided by our response to environment and cultural context; all factors which are not genetically determined.

INTELLIGENCE (IQ) and COGNITIVE ABILITIES ...

have, according to the latest large-scale study, proven to be genetically inherited by 53%. Hence, 47% of our mind are conditioned by individual response to environment and cultural context none of which are not genetically determined

CREATIVITY ...

is inherited by 50% which means that about half of anyone's creative ability can be affected by environment and cultural context.

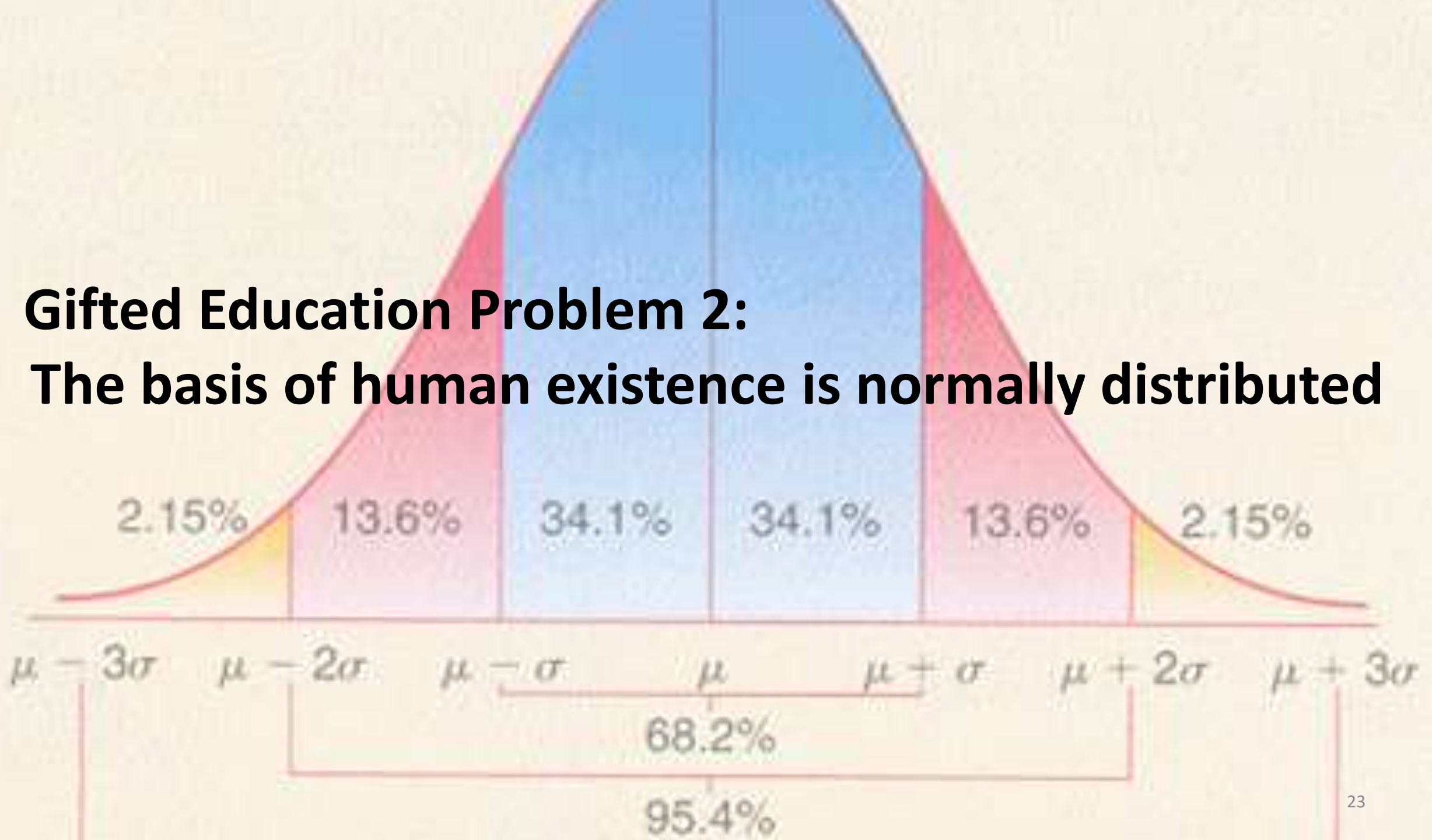
Piffer, D., & Hur, Y. M. (2014). Heritability of creative achievement, *Creativity Research Journal*, 26(2), 151-157.

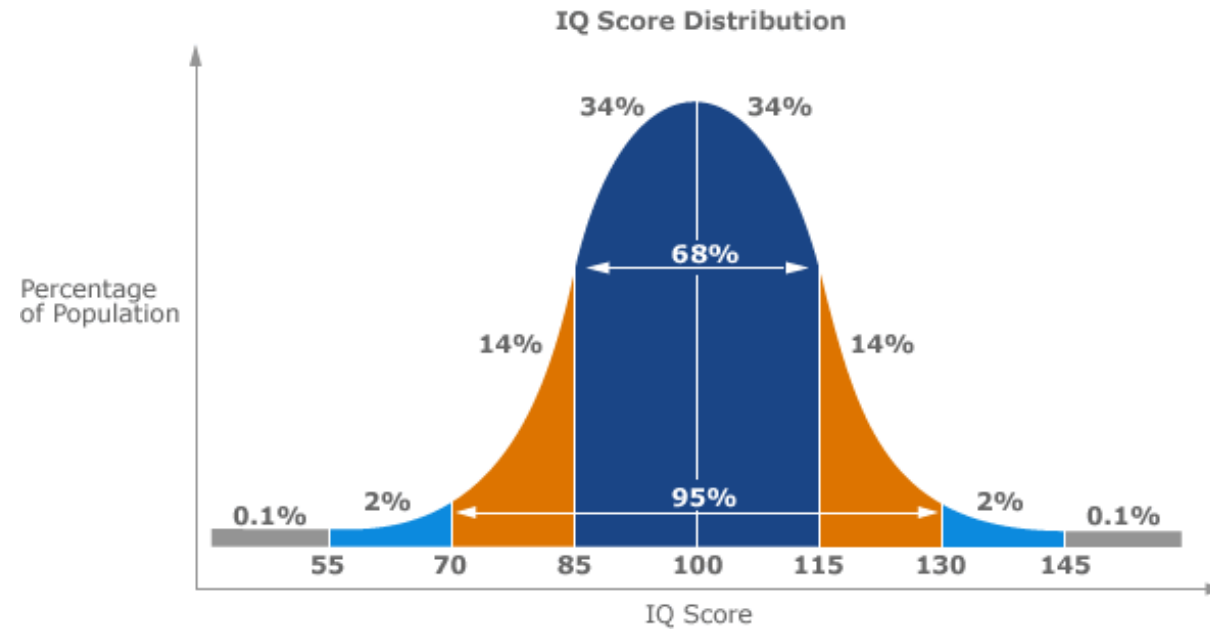
Plomin, Robert., DeFries, J. C., Knopik, Valerie. S., & Neiderhiser, Jenae, M. (2013). *Behavioral genetics* (6th ed.) New York: Worth Publishers.

Sniekers, S., Stringer, S., Watanabe, K., Jansen, P. R., *et al.*, (2017). Genome-wide association meta-analysis of 78,308 individuals identifies new loci and genes influencing human intelligence. *Nature Genetics* (online), doi:10.1038/ng.3869

Gifted Education Problem 2:

The basis of human existence is normally distributed





The Central Limit Theorem

.... averages of samples of observations of random variables independently drawn from independent distributions converge in distribution to the normal; that is, they become normally distributed when the number of observations is sufficiently large.

... to mention just a few normally distributed phenomena

- IQ, of course, and all psychological abilities and attributes we currently know of
- How tall or short we are in comparison to an entire population
- How fast for example 10 000 cars drive on a motorway with a speed limit at a certain point of measure
- Measures of living organisms such as: height, weight, area, blood pressure and need for sleep
- Measures of organic tissue such as nails, teeth, claws and hair
- Financial markets phenomena
- Meteorology: the distribution of precipitation during a longer period of time

**Normal distribution should be seen as a type of Natural Law.
It does not disappear just because it is ignored! It will still have an impact ...**



Video clip:

The Quincunx or the Galton Board demonstrating the Central Limit Theorem (i.e., the mathematical theorem describing Normal Distribution)

<https://www.youtube.com/watch?v=9xUBhhM4vbM>

The Grand Paradox

While the equilibrium of equality is optimal for human existence, evolutionary adaptation to change will always be fraught with inequality created by random genetic mutation and the normal distribution of physiological and psychological attributes

- **Ideologists and politicians** dismiss normal distribution because it exposes the inevitability of inequality,
- but **markets and captains of industry** dismiss it for another reason, namely because they demand **everyone** to be a talent by effort to maximise profit and growth.
- Markets, however, do not understand, or more likely, do not care that they create a paradox of their own: **normal distribution applies to leadership but not to production achievement!**
- Since school and education systems now are made to serve the Global Knowledge Economy by industrial management and accountability (especially the OECD countries) it follows **that overachievement (or expressed as excellence!) now is the norm to create and follow for all pupils and employees** (see Persson, 2017, for a literature overview)

John Charvet (2013). *The nature and limits of human equality*. Basingstoke, UK: Palgrave MacMillan.

Persson, R. S. (2017). Accountable talent: under and overachievement as investible human capital. In R. Klingner (Ed.), *Gifted underachiever* (pp. 1-32). New York: Nova Science Publishers.

Richard Wilkinson & Kate Pickett (2010). *The spirit level. Why equality is better for everyone*. London: Penguin.

The result of The Grand Paradox: The Talent Confusion Matrix

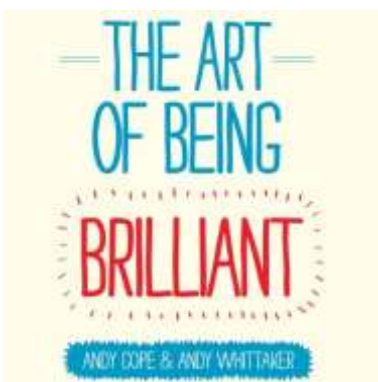
STAKEHOLDER	COMMON LABEL	ASSUMED INCIDENCE	KEY QUESTION
Business world (Leadership)	Talent	Few	What can they do?
Business world (Production)	Talent	Everyone	What can they do?
Society in general	Talent/Giftedness	Few	How much do I like what they do?
Sports	Talent	Few	How fast, how strong, how high, how many goals and so on?
Art and music	Talent/Giftedness	Few	How great the experience?
Politics	Talent/High achievement	Everyone	How does it fit current ideology?
Academic (Psychometrics)	Giftedness	Few	Can it be identified according to valid measures?
Academic (Behaviorism)	Talent/Expertise/ Excellence	Everyone	Is support excellent and do they practice deliberately and a lot?

Persson, R. S. (2014). The Needs of the highly able and the needs of society: A multidisciplinary analysis of talent differentiation and its significance to gifted education and issues of societal inequality. *Roeper Review*. 36, 1-17

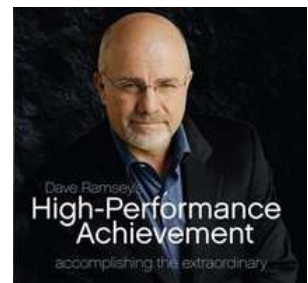
More confusion: current labels and constructs all pertaining to extraordinary behaviour in one way or another



Talent	Eminence	High achievement
High ability	Elite	Creativeness
Expertise	Genius	Innovativeness
Excellence	Giftedness	Prodigiousness
Competence	Brilliance	A-player



...and of course: being exceptional!



... all of which has had a most curious affect on younger generations ...

Generation Y Talent Mindset

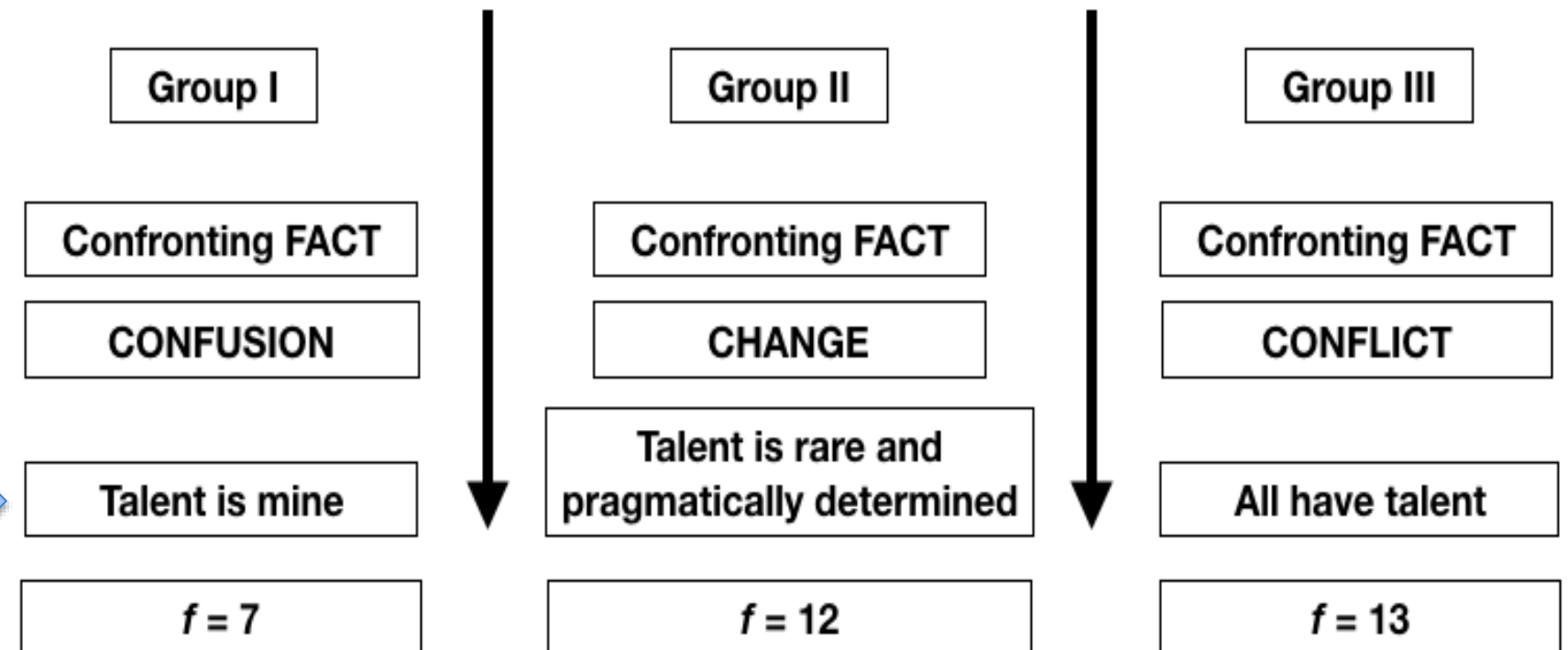
Supremacy of ME - Talent by entitlement - Talent by resolving conflict between scientific fact and ideology

The Letter Generations

Babyboomers 1946-1960
Generation X 1960-1980

The Computer and Social Media Era begins ...

Generation Y 1980-2000
Generation Z 2000 ...



Why is it that we generally accept paradox and contradiction?

... Homo Sapiens is, in fact, programmed
to accept illusion as truth for survival
reasons!

The human species, shockingly, tends to prefer illusion to fact if fact is somehow perceived as negative

“Illusions are generally useful”, Austrian neurologist and philosopher Franz M. Wuketits (2008) argued, “they may as a result of evolution, through natural selection, actually be instrumental in serving our survival” (p. 6, author’s translation).

The human predilection for wanting to construe everything in as positive a manner as possible is most likely an evolutionary adaptation making us feel special and transcendent (Humphrey, 2011).

We wish to see things in as positive a light as possible because it benefits our development in terms of natural selection over long periods of time. Such a positive self-serving bias is a well researched field in psychology focusing on cognitive and perceptual processes distorting what we see and understand with a purpose of maintaining and enhancing self esteem. This type of behavior is also, as far as we know, a human universal (Mezulis, Abramson, Hyde & Hankin, 2004).

Humphrey, N. (2011). *Soul dust. The magic of consciousness*. Princeton, NJ: Princeton University Press.

Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in self-serving attributional bias. *Psychological Bulletin*, 130(5), 711-747.

Persson, R. S. (2014). Human nature: the unpredictable variable in engineering the future. In D. Ambrose & R. J. Sternberg (Eds.), *Giftedness and talent in the 21st century: Adapting to the turbulence of globalization* (pp. 65-80), Rotterdam, NL: Sense Publishers.

Sharot, T. (2011). The optimism bias. *Current Biology*, 21(23), R941-R945.

Wuketits, F. M. (2008). *Der freie Wille. Die Evolution einer Illusion* [The free will. The evolution of an illusion]. Stuttgart, DE: S. Hirzel Verlag

Food for thought ...

How does such inherent biases influence scholarship and science?

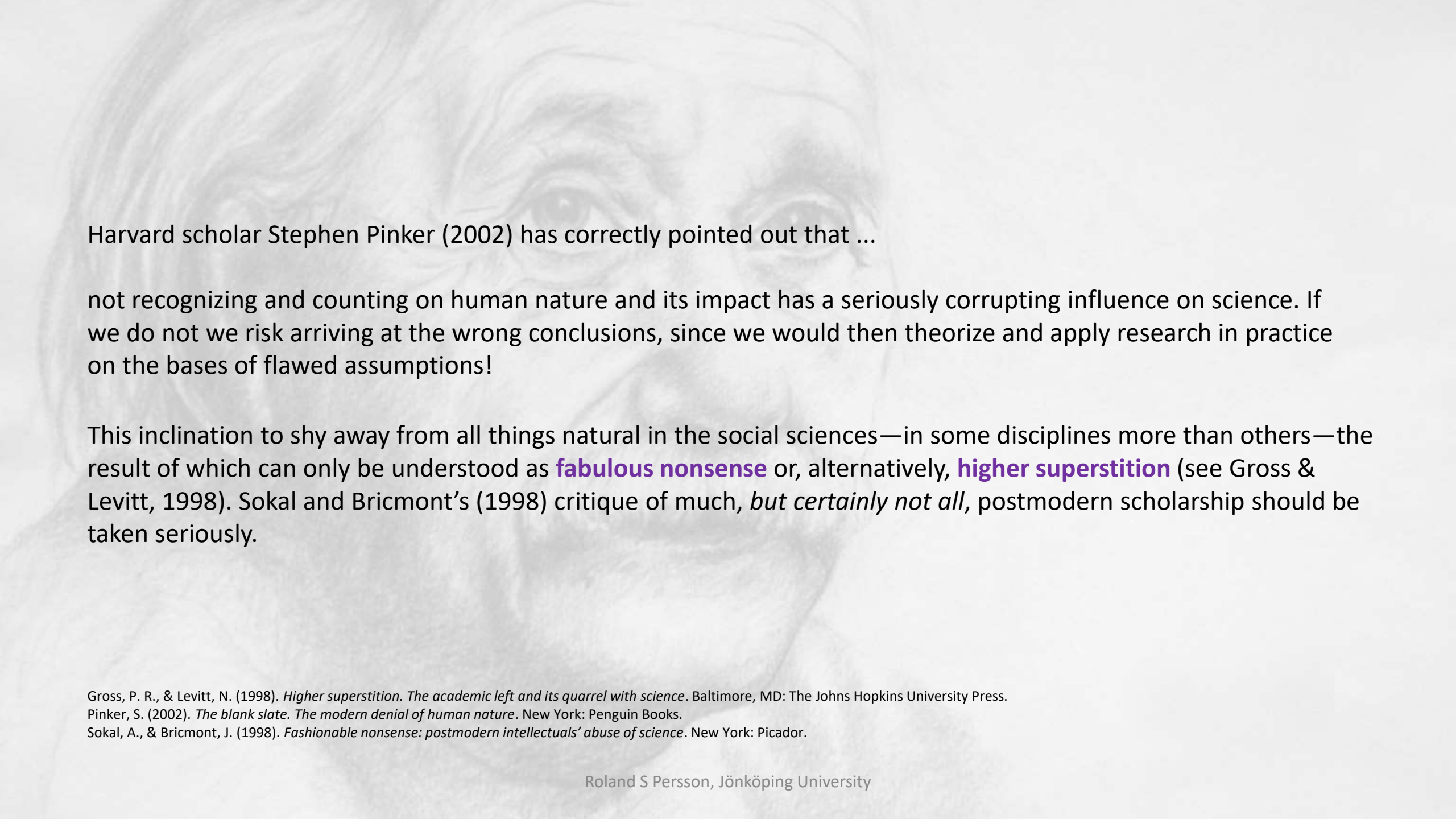
It would take considerable ability in terms of abstraction level and strength of willpower to see this bias and to be able to make the choice to remove oneself from it – if you do you also risk severing the social links that hold groups together by similarity!

**This is what the gifted typically tend to do
...and this has consequences!**



The human tendency to prefer positive outcome-illusions means
that among the non-gifted population
(which constitutes at least 95% of the World's population),

**values are easily reified into becoming understood as
constituting scientific fact**



Harvard scholar Stephen Pinker (2002) has correctly pointed out that ...

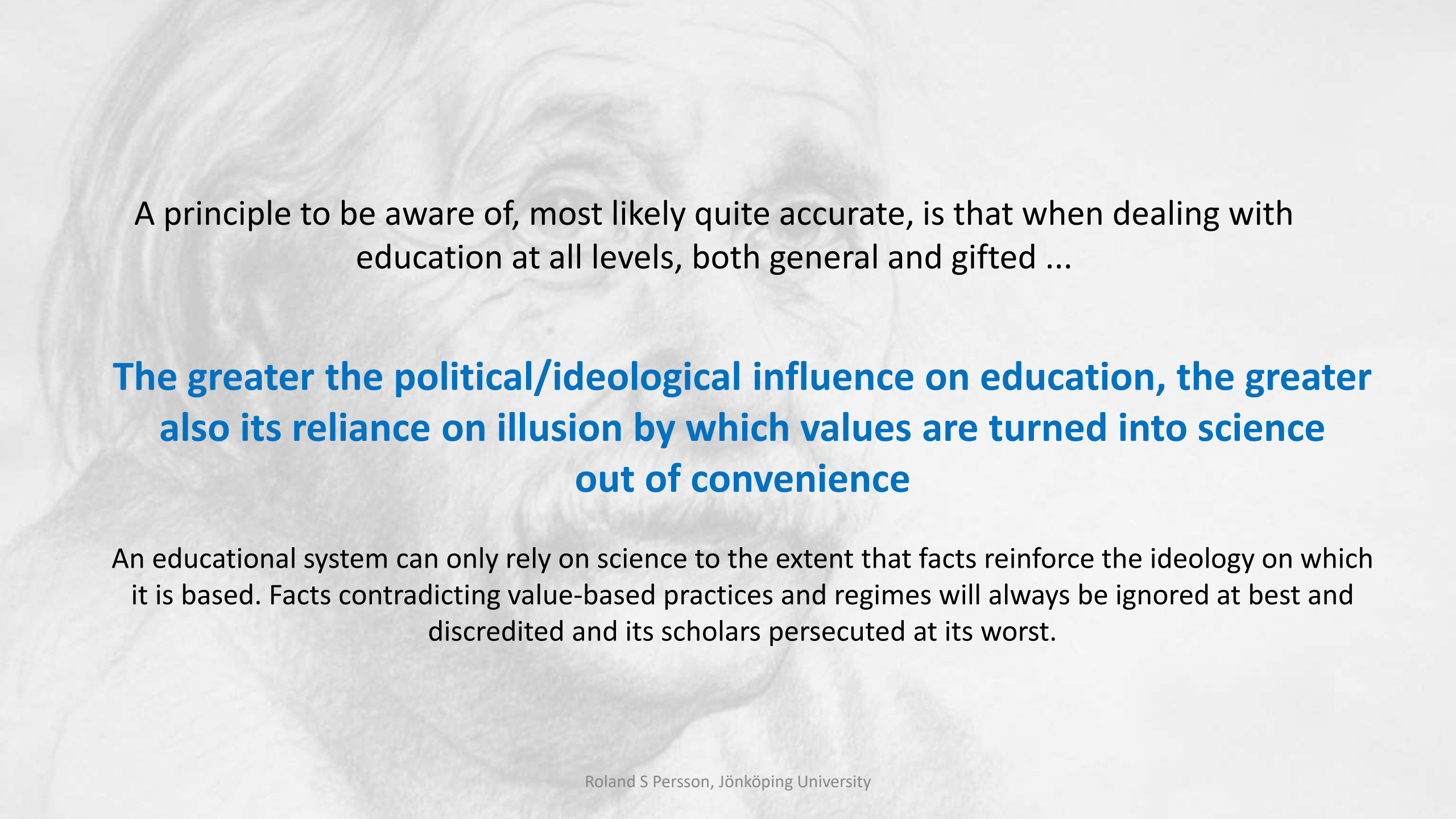
not recognizing and counting on human nature and its impact has a seriously corrupting influence on science. If we do not we risk arriving at the wrong conclusions, since we would then theorize and apply research in practice on the bases of flawed assumptions!

This inclination to shy away from all things natural in the social sciences—in some disciplines more than others—the result of which can only be understood as **fabulous nonsense** or, alternatively, **higher superstition** (see Gross & Levitt, 1998). Sokal and Bricmont's (1998) critique of much, *but certainly not all*, postmodern scholarship should be taken seriously.

Gross, P. R., & Levitt, N. (1998). *Higher superstition. The academic left and its quarrel with science*. Baltimore, MD: The Johns Hopkins University Press.

Pinker, S. (2002). *The blank slate. The modern denial of human nature*. New York: Penguin Books.

Sokal, A., & Bricmont, J. (1998). *Fashionable nonsense: postmodern intellectuals' abuse of science*. New York: Picador.



A principle to be aware of, most likely quite accurate, is that when dealing with education at all levels, both general and gifted ...

The greater the political/ideological influence on education, the greater also its reliance on illusion by which values are turned into science out of convenience

An educational system can only rely on science to the extent that facts reinforce the ideology on which it is based. Facts contradicting value-based practices and regimes will always be ignored at best and discredited and its scholars persecuted at its worst.

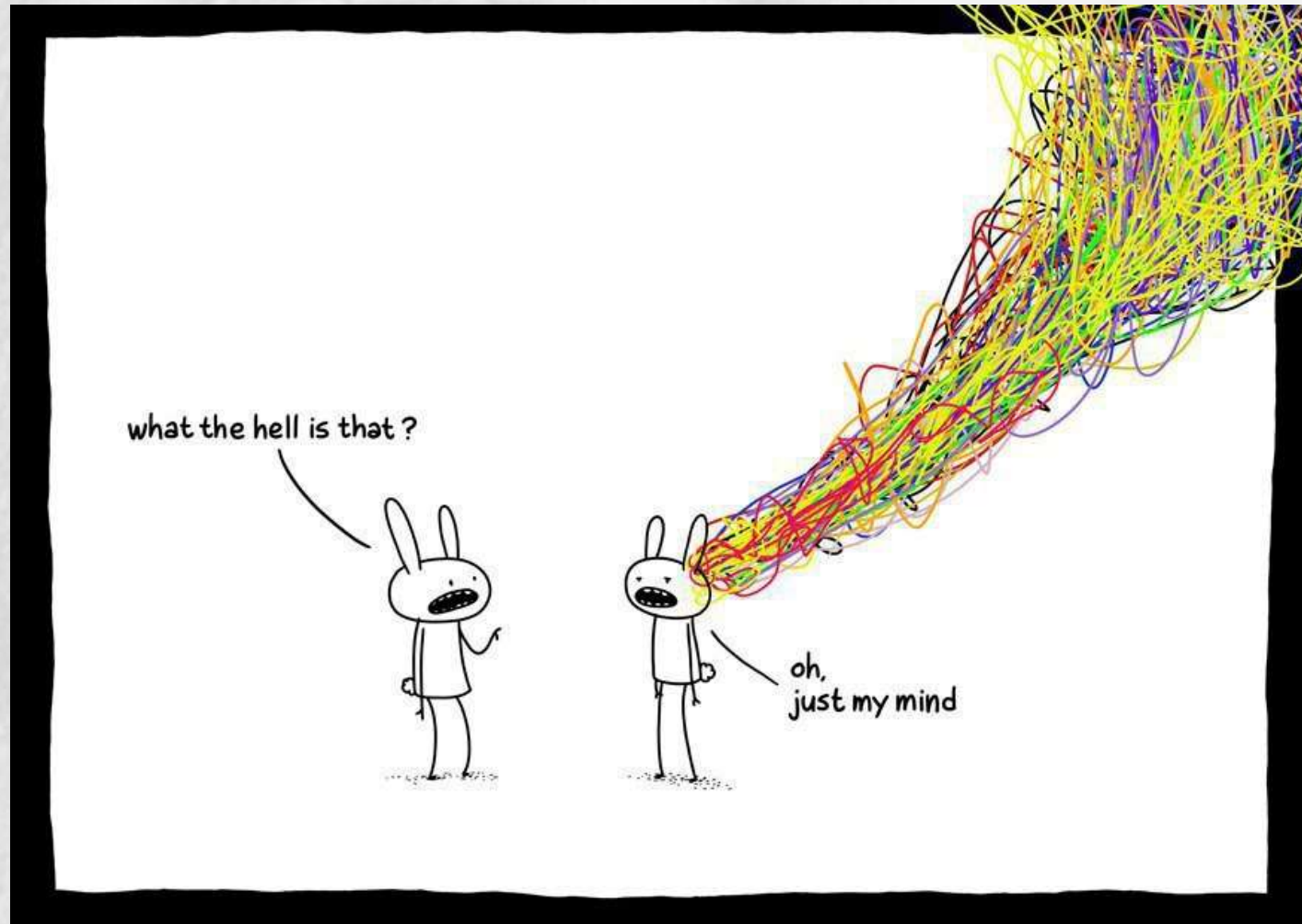


So, who are the gifted?

...identifying them *despite* of 100 years of diverse, and often flawed, scientific study of little consensus and **much** ideological bias ...

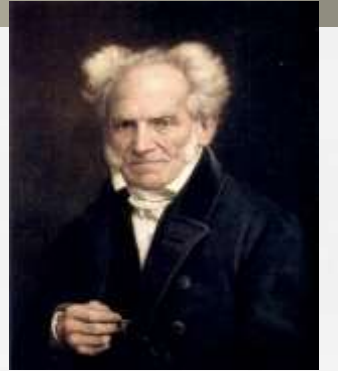
A comparison between a gifted individual and a non-gifted individual described visually

(by an unknown artist as found on the Internet)



German philosopher par excellence Arthur Schopenhauer made an interesting and *very* astute observation in the early 1800s

Das Talent gleicht dem Schützen, der ein Ziel trifft, welches die Übrigen nicht erreichen können; das Genie dem, der eines trifft, bis zu welchem sie nicht ein Mal zu sehn vermögen ...

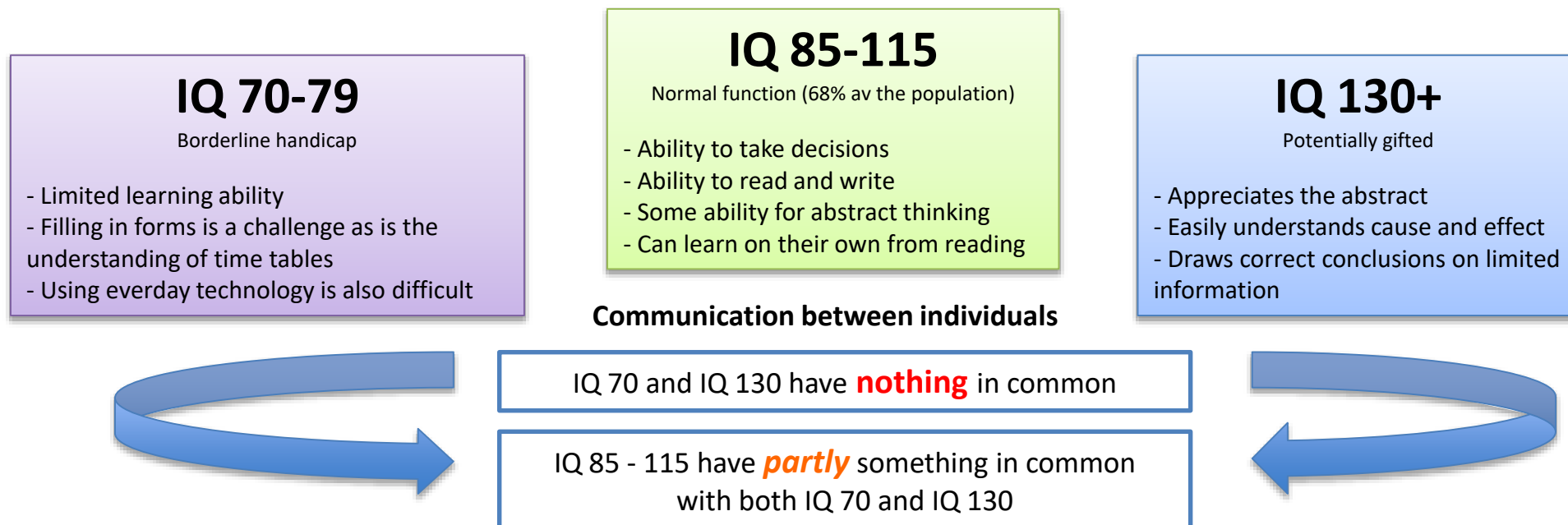


A talent is like a marksman hitting a target that others cannot hit. A genius, however, hits a target that others ***are not able to even see ...***

Difference!

...the further away from a normal distribution average we come, irrespective of direction, the more an individual's behaviour will **deviate** from the average norm.

This norm is, and will always be, **the way that most people are and behave**



... What happens to individuals who see and understand issues and phenomena that others cannot?

A few examples ...



Nothing of course if they stay silent and don't tell anyone. But things change dramatically when they try to share their observations and understanding with others...

Galileo Galilei defends himself before the Inquisition in Rome in 1632



Painting by Cristiano Banti, 1857
(Private collection)

- Galileo argued a heliocentric understanding of the world when the Catholic Church argued a geocentric understanding
- Accusations were ideological and deviation from the official view was considered heresy punishable by death
- Galileo was forced to denounce his own arguments. His writings were prohibited and Galileo was put under house arrest for the remainder of his life

Galileo's plight is by no means unique - it continues!

Scholars at Risk Network (New York University)



Measures taken against scholars worldwide as documented by Risk Network 2013

Exposed to violence	19 incidents	Swaziland, China, Russia, Sri Lanka, Afganistan, Syria, Jordan,
Unlawful incarceration	13 incidents	Zimbabwe, Sudan, Nigeria, Ivory Coast, China
Incorrectly prosecuted	6 incidents	Zambia, Zimbabwe, Tunisia, India, Turkey
State revenge by terminating someone's employment	4 incidents	Uganda, Belarus,
Imposed travel restrictions	2 incidents	China, UAE,
Other types of restrictions, harassment, persecution or imposed limitations	20 incidents	USA , Guatemala, Malawi, Morocco, Nigeria, Singapore, China, Azerbaijan,

Scholars at Risk Network in 2013 (New York University, NY, USA – source <http://monitoring.academicfreedom.info/map>)

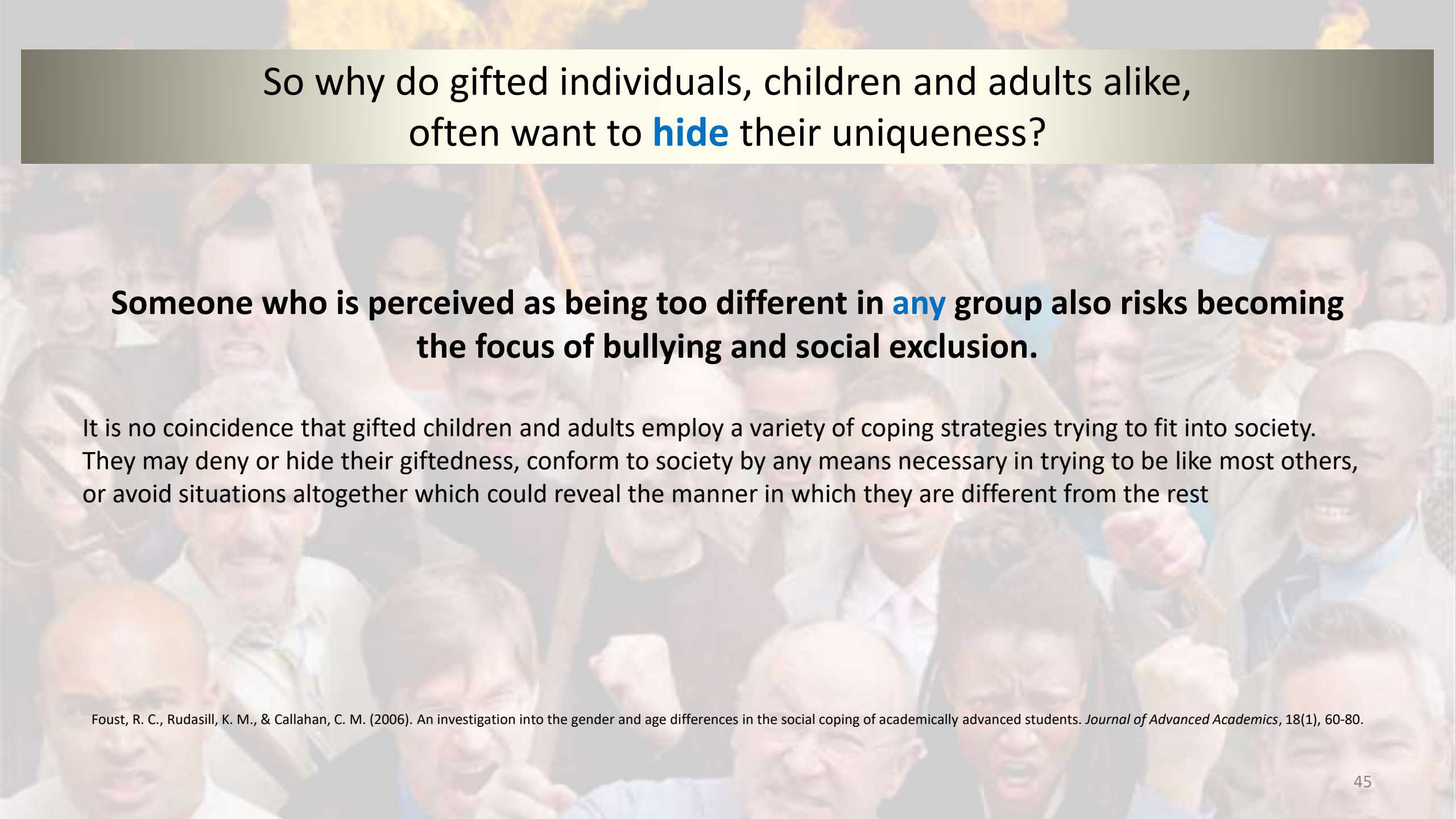
Illustration from the Scholars at Risk Network URL: <http://scholarsatrisk.nyu.edu>

The more *sinister* side of giftedness is almost always ignored

Hollingworth (1942) addressed this problem already in the 1940s, concluding that

“a lesson which many gifted persons never learn as long as they live is that human beings in general are inherently very different from themselves in thought, in action, in general intention, and in interests. Many a reformer has died at the hands of a mob, which he was trying to improve in the belief that other human beings can and should enjoy what he enjoys. This is one of the most painful and difficult lessons that each gifted child must learn, if personal development is to proceed successfully” (p. 259).

Hence, this group of individuals needs to be allowed to function in society on largely their own terms if they are to also contribute to society. Note that this is also what a majority of them wish but they are rarely allowed to. As Freeman (2005) has very appropriately phrased it: “They need permission to be gifted.”

A background image of a diverse crowd of people, many with their arms raised in a cheering or celebratory gesture. The image is semi-transparent, allowing the text to be overlaid clearly.

So why do gifted individuals, children and adults alike,
often want to **hide** their uniqueness?

Someone who is perceived as being too different in **any group also risks becoming the focus of bullying and social exclusion.**

It is no coincidence that gifted children and adults employ a variety of coping strategies trying to fit into society. They may deny or hide their giftedness, conform to society by any means necessary in trying to be like most others, or avoid situations altogether which could reveal the manner in which they are different from the rest

A homo sapiens principle

Similarity—all that is shared by a group, no matter which size—
is also the fundamental glue that keeps the group together!

... however, these also affect or facilitate group cohesion:

- ✓ Group size
- ✓ Entry difficulty
- ✓ Group success
- ✓ External competition and common threats (... such as someone potentially disturbing the social status quo)

Baumeister, R. F. (2012). The theory of belonging. In P. A. M. Van Lange, A. W. Kruglanski & E. T. Higgins (Eds.), *Handbook of theories of social psychology: Volume two* (pp. 121-140). London: Sage Publications.

Crocker, J., & Quinee, D. M. (2003). Social stigma and the Self: meanings, situations and Self-esteem. In F. H. Heatherton, R. E. Kleck, M. R. Hebl and J. G. Hull (eds.), *The social psychology of stigma* (pp. 153-181). New York: The Guildford Press.

Gerard, H. B. & Mathewson, G. C. (1966). The effect of severity of initiation on liking for a group: A replication. *Journal of Experimental Social Psychology*. 2(3), 278-287.

Soboroff, S. D. (2012). *Group size and the trust, cohesion, and commitment of group members* (PhD Thesis in sociology). Iowa City, IA: Graduate College, University of Iowa.

Thompson, W. R., & Rapkin, D. P. (1981). Collaboration, consensus, and détente: the external threat-bloc cohesion hypothesis. *The Journal of Conflict Resolution*, 25(4), 615-637.

Hence, the following is true of all us, on some level, irrespective of culture

- We are animals, subject to evolution which has prompted Homo sapiens to become a social species
- All individuals avoid **involuntary** loneliness and isolation
- That which more than anything else holds groups together over time is similarity
- Smiliarity is inevitably a social **norm** everywhere, programmed by evolution prompting all of us to emulate everyone else in the group to which we belong. Needless to say, some are more successful than others in doing this.
- Whoever transgresses the norm will always encounter a negative reaction
- The limits of tolerance differ between groups, but they all have a limit
- **Observe!** The same type of behaviour exists also among other hominids like Chimpanzee and Spider Monkeys.

A taxonomy of the socio-biological **function** of giftedness and talents

Social function	Everyday term	Universal social response
MAINTENANCE	The Nerd	Acceptance and encouragement <i>Supports social cohesiveness and the societal status quo</i>
ENTERTAINMENT/ESCAPISM	The Hero	Acceptance and encouragement <i>Supports social cohesiveness by maintaining illusions in the sense that when there is a mismatch between societal system and individual there are ways of temporary desensitising individuals to its negative effects.</i>
SOCIETAL CHANGE	The Martyr	Resistance and persecution <i>Has the potential to threaten social cohesion and disturb the social status quo</i>

Persson, R. S. (2009). The unwanted gifted and talented. A sociobiological perspective of the social functions of giftedness. (pp. 913-924). In L. V. Shavinina (ed.), *International handbook of giftedness*. Dordrecht, NL: Springer-Science.

Stone-Potter, D., & Mattingly, D. J. (2010). *Life, Death, and Entertainment in the Roman Empire*. Ann Arbor, MI: University of Michigan Press.

Important, inevitable and scientifically *incontrovertible* conclusions of the consequences of normal distribution and the dynamics of species evolution.

(... which also tend to be ideologically and politically inconvenient or even unacceptable)

- Not everyone is alike nor does everyone have the same capacity to develop. Humans are not all equal. Value is always measured against survival value whether we like it or not. It matters little, unfortunately, what values the general population holds.
- To be extremely gifted, simply by virtue of being unlike most others, is inherently dysfunctional in a social context
- To demand always high-achieving (or gifted) pupils and adult employees who are consistently creative and produce high quality, who are 'team players,' conform to rules and usually do as told **do not exist!** This is ideology and constitutes a scientific paradox. The more extreme you are the more independent and non-conformist you are also.
- The randomness by which we are made to differ by evolutionary design also makes it difficult, if not impossible, to predict a great deal of psychometrically defined behaviour (especially expecting that someone will maintain the same personality characteristics over a long time)

Persson, R. S. (2018, in production). Destined to lead the world? On great leaders, fashionable nonsense, and the origins and possible future of leadership. In R. Klingner (Ed.), *Gifted leadership* (working title). New York: Nova Science Publishers.

Simonton, Dean Keith, (2005). Giftedness and genetics: The emergenic-epigenetic model and its implications. *Journal for the Education of the Gifted*, 28(3/4), 270-286.

Tooby, J., & Cosmides, L. (1990). On the universality of human nature and the uniqueness of the individual: the role of genetics and adaptation. *Journal of Personality*, 58(1), 17-67

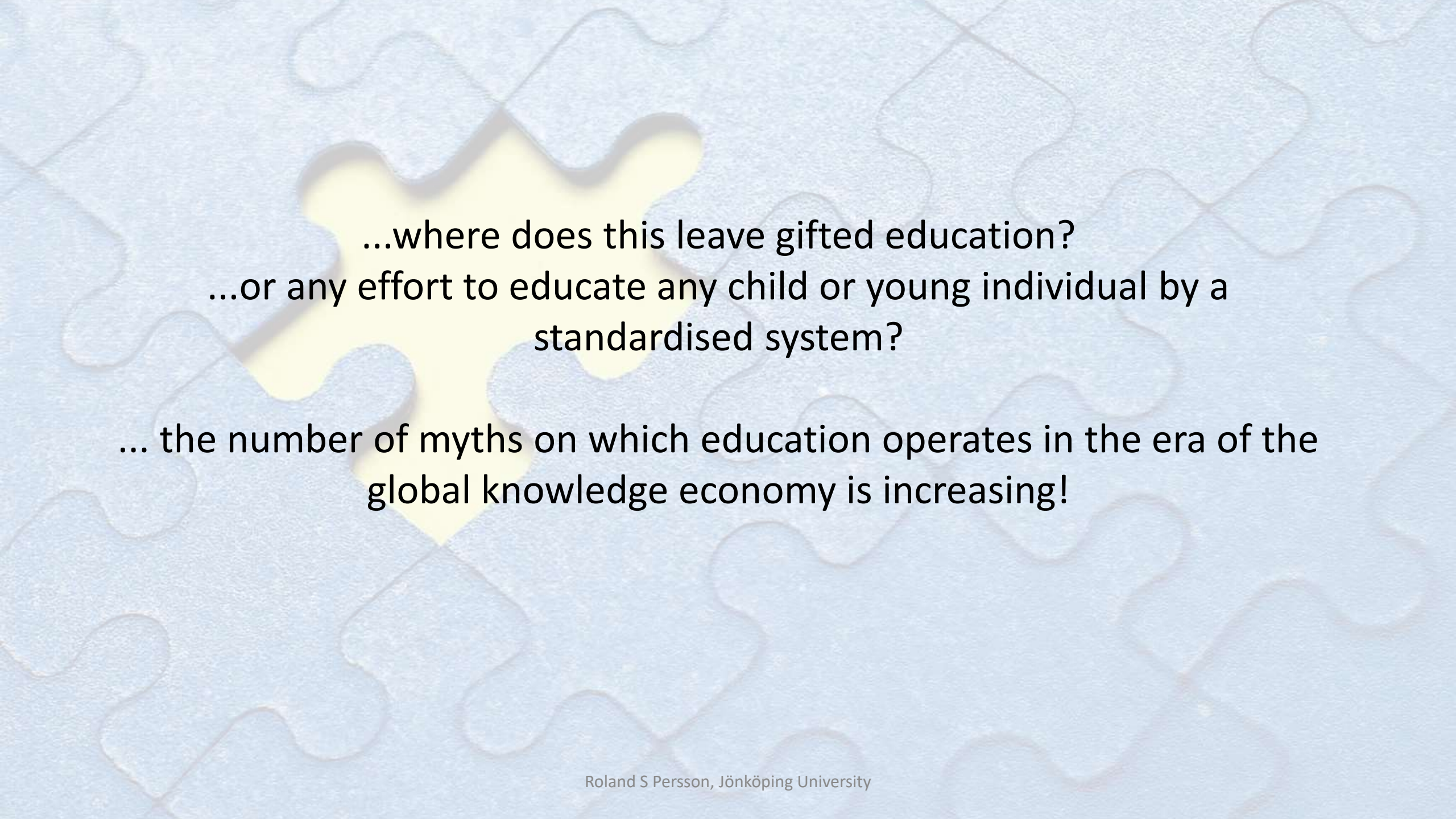
- Since the world largely and unaware runs on illusion, facts and logic tend to have limited impact. The 'feel-good factor' is much more important.
- There is no such thing as a continuously gifted, empathic and morally high-standing leader! Any gifted person who perchance ends up in a leading position, at whatever level, no matter how compassionate, will invariably also change because of it. This change is always towards sociopathic and narcissistic tendencies. Great power **always** corrupts greatly!
- Perhaps most shocking is the fact that as scholars are increasingly accepting the politics of a career they often also distance themselves from 'truth' – as we currently know it. How can we trust researchers and their results if they do? What do we actually think we know?

Cialdini, R. B. (1993). *Influence. Science and practice*. New York: HarperCollins.

Moore S, Neylon C, Eve M P, O'Donnell D P & Pattinson D (2017) 'Excellence R Us': university research and the fetishisation of excellence. *Palgrave Communications*, 3:16105, DOI:10.1057/palcomms.2016.105

Persson, R. S. (2018, in production). Destined to lead the world? On great leaders, fashionable nonsense, and the origins and possible future of leadership. In R. Klingner (Ed.), *Gifted leadership* (working title). New York: Nova Science Publishers.

Resnik, D. B. (2007). *The price of truth. How money affects the norms of science*. Oxford, UK: Oxford University Press.



...where does this leave gifted education?
...or any effort to educate any child or young individual by a
standardised system?

... the number of myths on which education operates in the era of the
global knowledge economy is increasing!

The gifted and talented and their mythology

(...as famously voiced by Ellen Winner in 1996)

- **Myth I.** Everyone is gifted and/or talented

- Unfortunately **untrue**

- **Myth II.** If gifted you do everything extremely well

- **Also incorrect.** While some certainly are extremely advanced, knowledgeable and skilled in several domains no-one ever is in all domains

- **Myth III.** All gifted and talented score highly on IQ-tests

- **Incorrect.** IQ is only related to academic skills (thinking skills) such as calculation, reading and writing.

- **Myth IV.** Giftedness is entirely genetically inherited

- **Incorrect.** But genetics certainly play a significant role which varies with type of ability, skill and age.

Scholars and practitioners in Gifted Education, however, often rely on other additional myths as well (!)

- **Myth V.** Giftedness and talent can be learnt through deliberate practice, social-emotional support and expert instruction.

- **Untrue.** Learning processes, instruction and training are, needless to say, of importance, but they cannot account for gifted behaviour alone. Giftedness is always, over time, a product of genetics and effort together. **Note that also the ability to train and practice deliberately is subject to heritability !!**

Mosing, M. A., Madison, G., Pedersen, N. L., Kuja-Halkola, R., & Ullen, F. (2014). Practice does not make perfect: no causal effect of music practice on music ability. *Psychological Science*, 25(9), 1795-1803.
Winner, E. (1996). *Gifted children*. New York: BasicBooks.

- **Myth VI.** To be gifted and talented is a privilege and more or less guarantees appreciation and societal success

- **Incorrect.** Since extreme talent or giftedness also means being extremely different in comparison to most others such behaviour becomes dysfunctional and appreciation and societal success, when it occurs, are exceptions rather than the rule.

- **Myth VII.** The gifted and talented will solve the problems of the world and lead the world to peace and happiness

- **Highly implausible.** That is not to say that they are not potentially able to by virtue of insight, knowledge and skill. The problem is that that they will not be allowed to in a democracy. If rising to power in a different type of political reality the change of social stations and perceived power will invariably change them physiologically towards becoming, more or less, classical despots. **The rise to power is always tied to compromising one's integrity.**

Fiedler, E. D. (1999). Gifted children: The promise of potential/The problems of potential. In V. L. Swan & D. H. Saklofske (Eds.), *Handbook of psychosocial characteristics of exceptional children* (pp. 401-442). New York: Kluwer Academic

Owen, D., & Davidson, J. (2009). Hubris syndrome: An acquired personality disorder? A study of US Presidents and UK Prime Ministers over the last 100 years. *Brain—A Journal of Neurology*, 132, 1396-1406.

Robertson, I. H. (2013). How power affects the brain. *The Psychologist*, 26, 186-189.

- **Myth VIII.** To be highly IQ-intelligent always means you behave rationally and insightfully

- **Incorrect.** A Clever Silly individual has extreme intelligence but is accepting of dogma which either has strong evidence against it or cannot be disproven. Intelligence becomes a tool not to seek 'truth' and knowledge but to advertise one's own cleverness. Rational thought is not measured by IQ

Dutton, E., & van der Linden, D. (2015). Who are the 'Clever Sillies'? The intelligence, personality, and motives of clever silly originators and those who follow them. *Intelligence*, 49, 57-65.
Stanovich, K. E. (2009). *What intelligence tests miss. The psychology of rational thought*. New Haven, NJ: Yale University Press.



Normal distribution and the biology of being human

Impact on Teachers and Teaching

The most common (and quite industrial) understanding of curricula and teaching methods

Enrichment

Following the regular curriculum but elaborating it by specialised assignments and the coverage of wider and/or more advanced knowledge

Acceleration

Following the regular curriculum at a faster pace and therefore graduating at an earlier age (Note that grade-skipping is a form of acceleration)

Pull-Out

If inclusive education is the ethos of the school system, a pull-out strategy is often used in terms of advanced placement (AP). That is, the pupils remain most of the time with their class but leave to be taught more advanced classes than their a certain percentage of time every week. Focus for AP is most often Science and Math

Ability Grouping

Has been studied in general education research for a long time. It means to divide pupils in a class room with their ability levels in mind. Consider the important following established fact: 1) In a mixed ability group the low achievers often benefit from the high achievers when working together, but the high achiever gains nothing! 2) A high achiever needs to work together with other high achievers if they are to benefit in terms of curricular learning.

Cluster grouping is the term used for allowing 4 – 6 gifted pupils to form a group in the inclusive classroom who follow the general curriculum, but that is adapted for their needs.



Summer Enrichment Programmes

Are programmes offered by some universities, foundations and/or organisations worldwide with the needs of the gifted in mind. These are available in the US, Russia, Hungary, Austria

Extra-curricular Enrichment

This type of provision is offered outside of the regular school and is most often provided by foundations, charities or other organisations. Hungary, Czech Republic, Romania are countries with such a set-up.

Competitions by "Olympiads" in Maths, Sciences and Music are a kind of extracurricular enrichment which is very popular in The Baltic States, Russia, China, Germany.

Full-time separate schools for the gifted and talented

In a global perspective it is fairly uncommon to separate gifted and talented students from regular pupils completely. The international norm, in accordance with the Salamanca Declaration, tends to be inclusion and integration. There are however also a number of specialised schools around in the US, Russia, and in Germany (inherited from DDR. Observe that these specialised schools are not to be confused with social elite schools!

There is of course nothing necessarily wrong with these educational interventions, but they do suffer from an age-old problem in social science and psychology in particular ...

**They avoid focussing on emotion (impossible to control)
and always focus on cognition (much easier to control and operationalise)**

Educational interventions are therefore mechanistic and capitalise on **achievement, production and cognitive skills! *They do not offer or take into account the importance of pupils understanding themselves*** in reference to Human Nature and the social dynamics which inevitably rule their world whether they want it or not.

While never *not* important, this is perhaps a little less important to a majority of pupils in schools, but it is paramount to gifted pupils whose existence is often quite philosophical and based on intense emotion, expression, and understanding

Cross, T. L. (Ed.). (2011). *On the social and emotional lives of gifted children*. Waco, TX: Prufrock Press.

Lovecky, D. V. (1997). Identity development in gifted children: moral sensitivity, *Roeper Review*, 20(2), 90-94.

Schutte, I., Wolfensberger, M., & Tirri, K. (2014). The relationship between ethical sensitivity, high ability and gender in higher education students. *Gifted and Talented International*, 29(1/2), 39-48.

Blooms Taxonomy of Educational (cognitive) objectives from 1956 has won worldwide recognition and use.

Less known, and not easy to implement in a controlled manner, is **Krathwol's Taxonomy for the Affective Domain** from 1964.

The two must always function together but seldom do. The accountability of modern educational systems make it impossible.

That is, you can set a target of achievement, at least practically, but you can never set a target for motivation, genuine interest and understanding and stay within a given period of time in a standardised setting!

Andersson, L. W., Kratwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. A., Pintrich, P. R., Raths, J., & Wittrock, M. C. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing. A revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives. Handbook I: Cognitive domain*. New York: David McKay.

Kratwohl, D. R., Bloom, B. S., & Masta, B. B. (1964). *Taxonomy of educational objectives. Handbook II: Affective domain*. New York: David McKay.

In addition to more cognitive-oriented management of gifted pupils in a national school system, as imposed by policy, what must teachers add to their professional role?
(not likely to ever be made part of any national curriculum)

... to make gifted pupils understand that **not all things are actually possible.**
This impossibility, however, is not necessarily due to the gifted individual!
Limitations are dictated by Human Nature and the social dynamics that constitute Homo Sapiens and the evolutionary forces prompting her adaptation to environment for the survival of the species.

... I am certain you can imagine how impossible this idea would be for most
American scholars and practitioners!
Importantly this does not make it in any way less true!!

The main problem with gifted individuals is the following, and will always remain a problem:
they are *not* 'normal' in the sense that they do not fit into the 68%
constituting the majority of any population

The problem is two-fold:

- 1. Unable to Identify with others:** 'I am so different. What's wrong with me?!'
- 2. Being excluded by others:** 'You're strange. You're not at all like we are!'

Teachers must never forget ...

- ✓ **That every child has a powerful urge of wanting to be like everyone else.** The conditions of socialising into a culture is by always comparing yourself to everything you see and hear and adapt accordingly, and most do so quite unaware. Every national school system builds, more or less, on the assumption that this is possible.
- ✓ **The gifted pupil has the same powerful urge to be part of the social context.** In addition, they become aware of it quite early and are much more aware of differences and similarities than most other children. Like every other child they do their utmost 'to fit in' – but soon realise that this is an impossible task:
 - **Instead they try to hide their differences** (perhaps by making mistakes on purpose or respond with 'I don't know' when asked a question – even though they may well know more than the teacher does)
 - **They also deny the fact that they are in anyway special or talented.** They try to convince themselves that they are like everyone else.
 - They try to do what everyone else is doing, share everyone else's opinions, and generally pretend to be like everyone else – but over time quite unsuccessfully so, **which becomes a cause for existential doubt and sometimes clinical depression**

Three basic conditions for surviving socially

1. On the whole it is more important to be more similar to most others than to be dissimilar

... How we value similarity and difference vary with culture, but we can never ignore the fact that similarity holds social groups together, and that there will be negative repercussions for whoever transgresses norms that challenges such social cohesion

2. Acceptance by the majority of the social context in which one exists is a necessity

Acceptance is likely to follow the evolutionary principle of *inklusive fitness* which is assumed to be the basis for optimising genetic fitness by adaptive social behaviour. Inclusive fitness is defined as the degree of survival and reproductive ability among one's own relatives, where each member is valued to the degree that he or she shares genetic information

3. Everyone must always relate to the majority irrespective of own opinions or behaviours. This generally means that majority norms, understandings and ability level must also always be accepted (... and **never** challenged!)

To 'fit in' into a social context without breaking or challenging social cohesion always demands conformism and submission

The momentous challenge!



While there is no way for the world around the gifted to ascend to their level of abstract thinking or fully understand their sensibility, **the extremely gifted individual has no choice but to learn how to interact with others outside his or her range of communication.**

This is likely to be the greatest challenge of their life. They will have to approach the ones who for many years perhaps, have shunned them, ridiculed them, ignored them and so on, accept their slower ways and more limited understanding. And this, they have to do largely alone (Persson, 2007, p. 31).

However, an understanding and wise teacher might make a world of difference, given that he or she, when suitable depending on need and a child's maturity, can communicate how the world of Homo Sapiens works and

the limits that this inevitably imposes on anyone being 'too different'!

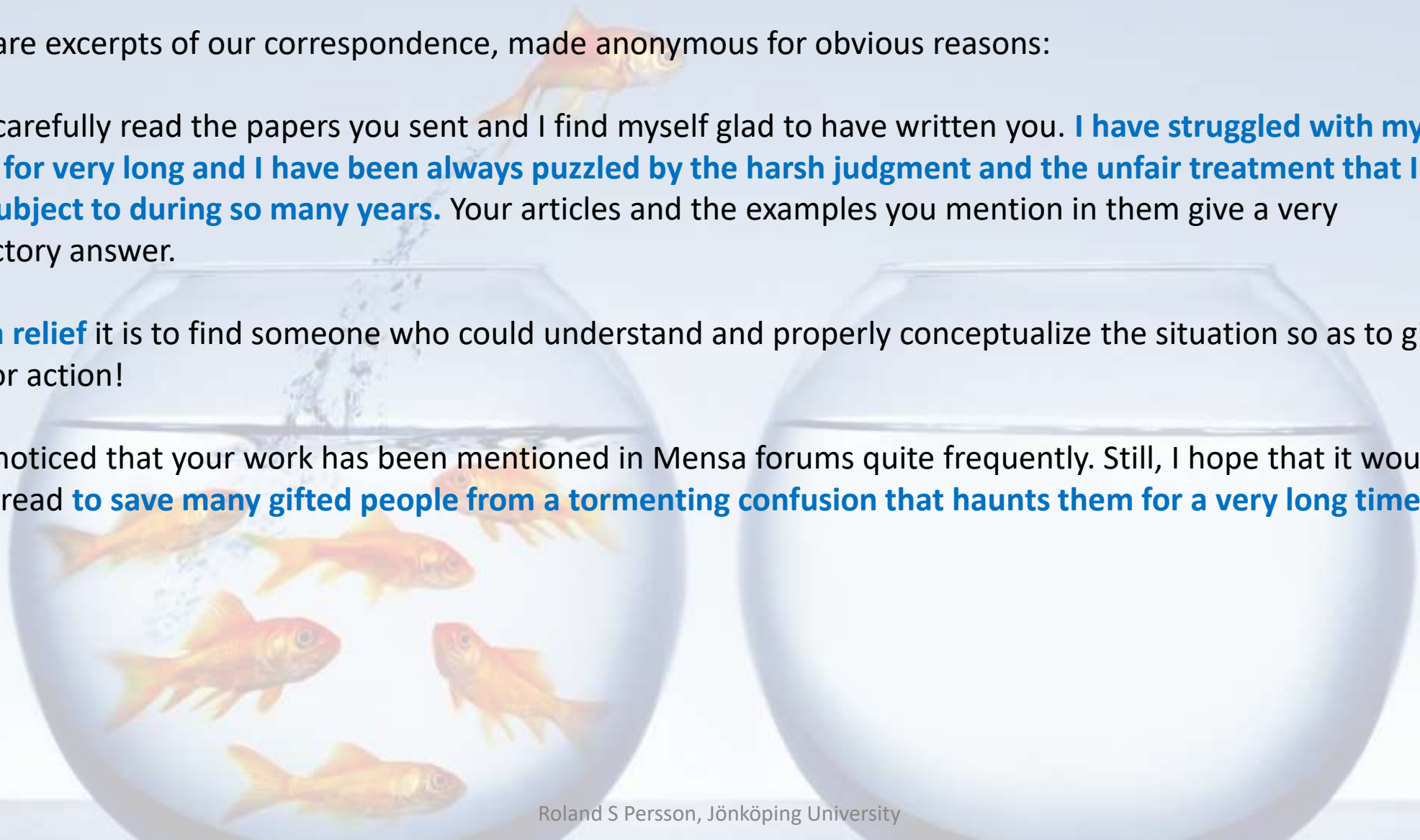
In conclusion, one astounding, and recent example, of why this aspect of teaching is paramount to gifted education!

An exceedingly bright North African young man contacted me. Born to poor parents in he somehow managed to gain an education, and ended up sponsoring charities and did all sorts of charitable work in his native country before ending up at Harvard University for three years.

From there he left for Sweden, not being able to understand the American sentiment and appreciation of 'being different'. He is now a PhD student at a Swedish university.

He told me he has read everything there is on giftedness **but found no answers to why he was not successful and why people treated him as an idiot or with complete disregard despite the fact that he was most likely the brightest scholar they had ever met.**

I usually respond to such e-mails and do what I can. We corresponded a few weeks and I sent him what I had written on the matter and proposed for him to read a few books (in three languages ... which he had already mastered).

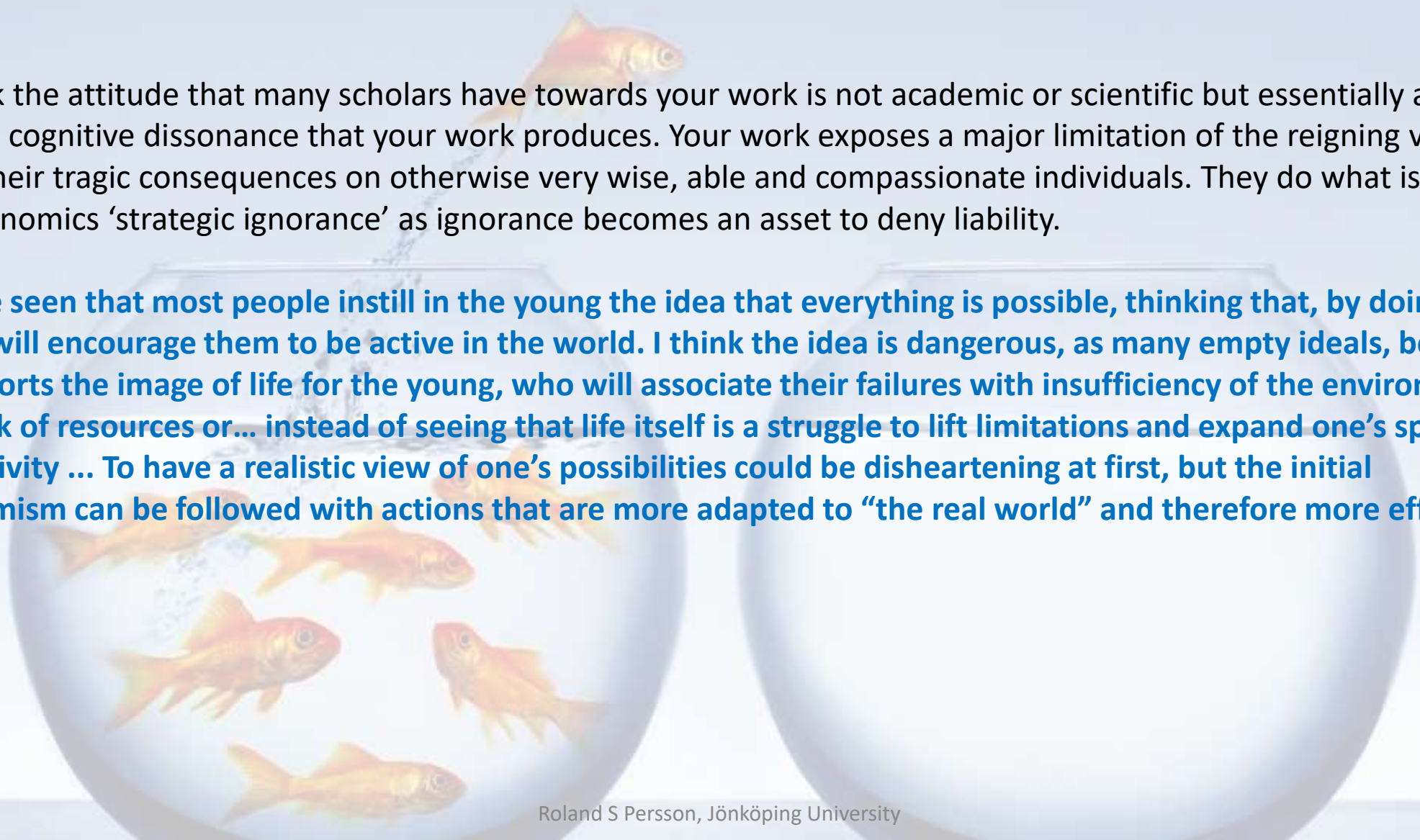
The background of the slide features two large, white, spherical goldfish bowls. The bowl on the left is filled with water and contains several goldfish of various sizes and colors (orange, yellow, and red). The bowl on the right is empty. The background is a light blue gradient.

These are excerpts of our correspondence, made anonymous for obvious reasons:

I have carefully read the papers you sent and I find myself glad to have written you. **I have struggled with my nature for very long and I have been always puzzled by the harsh judgment and the unfair treatment that I have been subject to during so many years.** Your articles and the examples you mention in them give a very satisfactory answer.

What a relief it is to find someone who could understand and properly conceptualize the situation so as to give a basis for action!

I have noticed that your work has been mentioned in Mensa forums quite frequently. Still, I hope that it would be widespread **to save many gifted people from a tormenting confusion that haunts them for a very long time.**

The background of the slide features two goldfish bowls. The bowl on the left is filled with several goldfish of various colors (orange, yellow, and red) swimming in water. The bowl on the right is empty. The text is overlaid on this background.

I think the attitude that many scholars have towards your work is not academic or scientific but essentially a result of the cognitive dissonance that your work produces. Your work exposes a major limitation of the reigning values and their tragic consequences on otherwise very wise, able and compassionate individuals. They do what is called in Economics 'strategic ignorance' as ignorance becomes an asset to deny liability.

I have seen that most people instill in the young the idea that everything is possible, thinking that, by doing so, they will encourage them to be active in the world. I think the idea is dangerous, as many empty ideals, because it distorts the image of life for the young, who will associate their failures with insufficiency of the environment or lack of resources or... instead of seeing that life itself is a struggle to lift limitations and expand one's sphere of activity ... To have a realistic view of one's possibilities could be disheartening at first, but the initial pessimism can be followed with actions that are more adapted to "the real world" and therefore more efficient.



Thank you for listening and paying Jönköping University a visit!

roland.persson@ju.se