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Seeking Competitive Advantages through Giftedness in Globalizing French Universities: The Penelope Case

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Abstract: This research takes place within the halo of the 2015 French national reform. The latter invites the existing 74 public universities to reorganize into 25 regional think tank poles to get more legitimacy in competing with international equivalent academic structures. As a response, French universities shall tackle crucial educational issues, among which gifted students' management are a spearhead. Indeed, the French higher education system still does not consider gifted students a priority notwithstanding the serious efforts performed at the school level to try and identify children with special needs and the potential they represent for knowledge-based resources. Through the case of a student we have named Penelope, a French abnormally intelligent student, this research introduces the French higher education context and tackles the educational challenge of gifted students' integration to academic environments that are not specifically prepared to deal with so-called deviances in a country that is going through severe academic perspectives change.

Keywords: Giftedness, Intelligence, Higher Education, Psychology, Case Study.

1. INTRODUCTION

Although the identification of a gifted child is the consequence of observing a series of characteristics and traits that are quite easy to notice, giftedness remains a vague concept for most of families and academics (Duckworth and Seligman, 2005). There are two reasons behind this lack of interest, people still believe that giftedness is a marginal occurrence, and the characteristics that lead to its identification are extremely close to intellectual weakness indicators. In other words, mentally weak children and gifted children often look alike and develop similar behaviors, a fact that has been pointed out quite recently (Dumas, 2002). Moreover, since a child is a developing being, giftedness is often mixed up with other disequilibria, the latter harming families' capability in suspecting such traits (Flynn, 1987; Wicherts *et al.*, 2004). Understanding a disorder's ætiology then means considering individual, familial, and environmental factors that, all together, explain behaviour.

Notwithstanding gifted children neither suffer from the Asperger Syndrome (Shore, 2003) nor from any autistic pathology, their behaviors and performances can sometimes remind such specificities (Appleyard *et al.*, 2005). For example, their degree of intelligence is so high that they do not find any interest in others' speech. Consequently, they isolate and develop a mental life in their own world (Corbetta and Shulman, 2002; Rimé, 2005) wrongly considered autistic symptoms.

At school, those symptoms are reinforced because when confronted to learning challenges, gifted children feel bored, they rarely get the explanations they seek. No one then really understands their greed for superior content so they feel forsaken. In reaction, they decide to hide, *i.e.* perform like the average do or merely fail in order to make sure someone will eventually care. At the end of the day, only 30% of the French children that have been diagnosed as gifted at school enter higher education.

Once an adult, gifted subjects still have to cope with the same exact circumstances and misunderstandings (Blackwell *et al.*, 2007). Unless diagnosed at early stages, gifted personalities either maintain a lifelong wandering behaviour or, in the worst cases, even develop mental pathologies such as bipolarity, schizophrenia, or paranoia (Bedart and Dhuey, 2006; Dumet and Ménéchal, 2005).

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2. GIFTEDNESS SEMIOLOGY

Attempting to measure intelligence is certainly as challenging as controversial (Binet, 1905; Kamin, 1995; Nisbett *et al.*, 2012; Pollack and Brenner, 1969; Siegler, 1992; Terman and Merrill, 1960;). This is mainly due to the high number of variables that are supposed to contribute to define intelligence, such as genetic inheritance, educational level, social environment, or cultural influences. The place given to the *g* factor (Spearman, 1904) also matters. This factor, named *g* for 'general', is the central factor all IQ tests must relate to (Walton and Spencer, 2009). It is able to explain 40% to 50% of the standard deviations that exist from one test result to another, since intelligence is a combination of both general skills and more specific ones according to the task performed (Fischbein, 1980).

The substantive 'intelligence' roots in the Latin word *intelligentare*, *i.e.* the faculty to understand. So intelligence is the group of mental functions that are capable of conceptualizing and rationalizing ideas. In a wider perspective, intelligence is the tool that helps species adapt to circumstances according to the outcome of a prior analysis and evaluation of a given situation (Neisser *et al.*, 1996), a concept clearly linked to Darwinism.

Intelligence divides into 8 distinctive categories (Gardner, 1999; Goleman, 2005; McGlone and Aronson, 2006; Colom *et al.*, 2010), lingual, mathematical, musical, spatial, kinesthesical, naturalist, interpersonal, and intrapersonal. Moreover, crystalized intelligence, *g*(C), distinguishes from fluid intelligence, *g*(F), *g* still balancing the results.

In the first case, *g*(C), the subject acts smartly thanks to stored knowledge and experience while, in the second case, *g*(F) the subject is naturally able to fix issues and imagine creative solutions without using any specific knowledge or reminding previous similar situations' outcomes (Coyle and Pillow, 2008; Cyrulnik and Duval, 2006), 'working memory' distinguishes from 'pure intelligence'. Gifted people are purely intelligent, succeeding at school - *g*(C) - and failing at university - *g*(F). As far as Gardner's 8 intelligences are concerned, they distinguish as follows:

• Lingual intelligence consists in being able to find the best words and in building the right speech according to the nature of the receptor that is receiving the information. Such intelligence allows imagining many different ways to explain something that is originally misunderstood for example.

• Mathematical intelligence lies in the art of playing with numbers. This does not mean being good in mathematics. This intelligence is more related to classical logic, numerology, and engineering-based outcomes.

• Musical intelligence allows singing in tune or playing various instruments without any specific solfeggio knowledge. Such intelligence for example helps distinguish dissonant notes from wrong ones.

• Spatial intelligence provides tools to find one's way without compass or instrument. It has nothing to do with the natural sense of orientation. This intelligence helps find one's way only from analytics.

• Kinesthesical intelligence concerns all activities requiring perfect body mastering, such as martial arts. It allows being able to do four different things with both legs and arms for example, like good drummers who master both musical and kinesthesical intelligences.

• Naturalist intelligence distinguishes between sensitive and perceptive information, and makes the brain conclude correctly what senses conclude wrongly, for example when dealing with optical illusions (Gentaz and Hatwell, 2004; Guillaume, 1979), two similar lines ending with inverted arrows look unequal, a marble touched by two crossed fingers gives the impression of being doubled, etc. During such experiences, the brain makes the final decision based on what it understands and knows, not on what it feels.

• Interpersonal intelligence is based on empathy and on one's capability to understand others' nonverbal behaviour. It is the art of reading subconscious signs and neuro-linguistic programming, or feeling stimuli beyond what shows, for example knowing someone is sad despite wearing a large smile or uncomfortable notwithstanding holding the opposite speech.

• Finally, intrapersonal intelligence helps know oneself through introspection. This intelligence requires a high level of honesty and integrity in order to be able to conclude that a reaction was not appropriate for example.

While everyone holds one or several intelligences up to different levels, gifted people master all of them and at high levels of performance. So they are often rejected, firstly because they do more, better, and faster than anyone else does and in all fields. Second because they often push further their thinking when people prefer stopping, thus creating embarrassing situations that can lead to anger, making the gifted people suspected to be bipolar. And third because since they are abnormally sensitive (*cf.* interpersonal intelligence), they can

sometimes be scarily considered clairvoyant due to their high level of scanning and observation of every tiny detail in everything. Giftedness nosography then mostly summarizes into a loss of contact with others, a lack of consciousness of specificities, a trait of strangeness for others, and thymic disorders. The latter can lead to depression, maniac behaviors, anxiety, phobias, or obsessive-compulsive disorders (OCD).

3. ACADEMIC-BASED NEUROPSYCHOLOGICAL DISORDERS

Most of academic failure cases are systematically explained through five neuropsychological disorders (Fancher, 1996).

• The first disorder concerns attention. Failing students do not listen in the classroom. Although there are several types of attention (Lezak *et al.*, 2004), they can hardly be separated when dealing with such a disorder.

• The second one concerns memory (Oberauer, 2003). Failing students hardly recall their knowledge. Should memory be built upon the traditional cortical - short-term - long-term triptych (Botez-Marquard and Boller, 2005), amnesia stops data recollection.

• Aphasia and alexia are the third disorder (Kail, 2003; Lechevalier, 1995). Failing students often panic when making a public presentation and/or struggle with syntax and verbal logic when writing essays.

• The fourth disorder concerns perception. Perceptual processes give meaning to sensations. They provide us with gnosis, a comprehension of our surroundings (Lechevalier *et al.*, 1995). Failing students hardly grab the true and essential meaning of a series of information provided during a class session.

• Apraxia is the fifth and last most commonly met academic disorder. Failing students hardly put into practice their knowledge, especially through manual activities (Boujon, 2002).

As a summary, students mainly fail because of a lack of focus, a weak memorization, a loss of control when in public or when expressing their ideas in writing, a difficulty to distinguish the marginal from the essential, and a struggle when putting theory into practice.

All parents and teachers agree on this list of disorders as the cause of student's failure (Herrnstein *et al.*, 1986; Kail and Fayol, 2003). But only few question the possibility of giftedness since effects are observed but causes are not questioned. Yet, gifted students actually fail due to similar reasons, except that, in their case, this behaviour is voluntary while in the case of weak students, it is undergone. Indeed, if we go back to the list of academic failure disorder sources, they all fit in the gifted characteristics.

• Focus: Gifted students do not listen in class because the topic covered are either not interesting enough or not demanding enough due to the presence of normal students in the classroom (Allport, 1980; Carr, 2004). Moreover, since they have a good memory, they often do not understand what they learn since they did not go through a learning-to-learn process because traditional teaching methods are not stimulating for them.

• Memory: Their excellent memory notwithstanding, they do not memorize what they consider useless, uninteresting, or easy, thus failing many exams.

• Expression: Although they feel comfortable and confident in public, they are sometimes hard to follow, either because they speak fast or because they write according to structures that are atypical or unconventional (Ramsden *et al.*, 2011).

• Perception: Their brain works differently. They rarely take the same direction and path from a problem to a solution than the ones the majority chooses. Consequently, they end up reaching nowhere, making teachers consider they did not understand anything.

• Apraxia: They find some difficulties in working in organizations merely because they have to cope with the same exact situations than the ones they faced while studying (Le Ny, 2005).

Consequently, in the case of gifted students, a university has a serious role to play in terms of integration and personal development. This is what shall be discussed in the next part.

4. THE FRENCH HIGHER EDUCATION CONTEXT

A. Universities Autonomy Law

France has spent 28.7 billion euros for academia in 2013, corresponding to 1.5% of its GDP. This is close to the average OECD rate - 1.6% - but quite far from the USA, South Korea, and Canada, which have respectively invested 2.8%, 2.7%, and 2.6% of their GDP in higher education in 2013. Around 2.5 million students are currently registered in France, among which 12% are foreigners and 56% are women. 60% study in the 74 public universities, the remaining being dispatched among the various private institutions. On 10 August 2007, the French Parliament voted the Pécresse Law - from the name of the Minister who has defended it - also

commonly named the University Autonomy Law. This law was officially implemented on 1 January 2013 to provide public universities with both financial and HR autonomy, sovereignty to invest in local projects and to hire staff according to needs. The objective was to help the public academic sector get new tools to cope with the competition from the national private business and engineering schools, the latter often being funded by wealthy alumni and industrial donators. By being granted the possibility to manage its own resources, the public academic sector would be able to develop new strategies and to implement a series of local reforms leading to the creation of specific competitive advantages of higher value for students. In this regard, universities would develop their own marketing, better manage the recruitment of higher-level instructors, and strongly enhance the experience they are now expected to provide to students (Picard *et al.*, 2003). This is the context into which the French Government had decided to push further the academic sector competitive logic. Indeed, on 23 July 2013, the Fioraso Law was voted.

B. Public Merger Perspectives

The Fioraso Law - still named according to the Minister who has prepared it - aims at reorganizing the 74 existing public universities into 25 mega poles in order to increase France's capability to cope with the international academic competition. As per the Shanghai Index, the first French university - l'Université Pierre et Marie Curie - ranks 37th, so quite far below the top ten and famous references such as Harvard, Stanford, or Berkeley, respectively trusting the three first ranks. An explanation to such a result is that the Shanghai Index gives priority to assessing research outcomes while France specializes more into teaching and professional insertion. Consequently, English-speaking countries can seem favored. Yet, France needs to increase both its positioning and level of penetration in the international saturated sector of higher education - where knowledge-based economies are flourishing and national students no longer hesitate in leaving home to go and study abroad - if the hexagon (*i.e.* the other name for France due to the map country's shape) wants to remain a powerful nation on the international knowledge scene and keep selling transfers of technologies. In this regard, the Fioraso project consists in creating heavyweight public academic environments.

Three formats are proposed to create the 25 mega poles. (1) The merger, leading to the creation of a mega university from the aggregation of five existing ones, (2) the federation, which would be a vertical structure headed by a Board of Trustees, or (3) the confederation, a horizontal organization into which the components would keep their independence and financial autonomy while equally sharing common projects.

C. France vs. 'TROTW'

Compared to 'The Rest Of The World', the French higher education system is highly diversified to make sure that everyone has the chance to get knowledge.

Through its 'national social responsibility', France's first objective is to create an operational value for the country. Studying in France must lead to get a job in the correlated field. Four degree-levels exist in France, identified by letters, the initials of the French words they represent, T (*i.e.* Technicien), L (*i.e.* License), M (*i.e.* Master), and D (*i.e.* Doctorat). T marks two years of superior studies, L equals the Bachelor degree, M corresponds to the Master's degree, and D names the Ph.D./M.D. France also provides three types of learning, a professional one, where students immediately learn how to perform a technical job, an academic one, where students increase their general or specific knowledge in a field, and a qualification one, mixing the two previous options.

The French system is extremely careful to providing all students with accurate information before entering any degree, as well as while studying in order to make sure that the chosen path really matches both the student's capabilities and professional project. Consequently, a solid educational system not only contributes to personal development, but also to enriching nations through the increase of corporate performance.

In such logic, two concepts arise and exist concomitantly, the need to make sure that all talents and capabilities are respected and given the chance to access knowledge, and the need to increase performance of businesses by working upstream on the skills and competencies of the next generations of workers, should they be blue or white collars. At school, similarly to what many American and English schools already do (Fine, 1991; Mayer, 2005), France has set up a series of procedures to identify and accompany gifted children since 2002. This 5-step process consists in (1) strengthening detection of giftedness, (2) increasing information towards parents and teachers, (3) adapting the scholar path to gifted children, (4) sharing data at regional levels, and (5) creating guiding procedures to help schools imagine different teaching and learning methods through tailor-made programs.

Yet, two variables remain underestimated and forsaken, the performance of such a process, and its impact and continuity once the child enters university (Campbell *et al.*, 2001). As of today, the French system does not link or follow up any effort engaged prematurely with a correlated action in higher education. Sadly, nearly 70% of the children who are identified gifted at school

leave the French educational system just after graduating their A' Level. The remaining people start superior studies but quite never shine in their field. This happens because what is required to perform at school is very far from what is required to perform at a university level. Memory is no longer enough. Understanding, creation, and resilience are the keys, and gifted students are absolutely not prepared to enter such formatted environments. This is the context into which, while working on seeking new competitive advantage solutions for our future Poitiers-La Rochelle-Tours-Orléans-Limoges mega pole of 80,000 students, 5,800 teachers, and 3,800 engineers, that we have met Penelope in our Management Science class of Consumer Behaviour, a Master's degree gifted student who would fit nowhere in the current academic system.

5. THE PENELOPE CASE

A. Personality And Traits

Academic professionals besides Mensa members always naturally and subconsciously observe students in order to detect any possibility of giftedness. This reflex is empathetic. Should anyone be gifted, he/she certainly needs help. From day 1, Penelope showed clear signs of failure potential, even if she had succeeded her first four years of studies. So we managed her case just like for any other at-risk student. From a physical perspective, the lady would often bite her nails, show signs of stress and boredom playing with her hair, dress up with nonconformist tendencies, and, from a marketing perspective, be both connoisseur and logophile when choosing her clothes' brands.

While we were making our students review key concepts during the first session, she would sit at the back of the classroom and often daydream, even looking sad. But from the moment we would stimulate the audience by criticizing what had been previously taught, thus proving that the contrary of every concept is also worth being considered - at a Master's level, critical thinking is essential -, she would suddenly focus and listen with a peculiar attention. Once in groups, she would neither participate nor lead any debate despite her suspected potential. She would listen a lot, observe, wait, and eventually leave, certainly with a feeling of frustration.

During the following days, while meeting her here and there in the university's corridors, we would all notice her loneliness. She would often listen to music, isolated, sometimes also moving as if she had a beat in her mind, although she had no headphones on her ears at that specific moment. The lady was only rocking herself, comfortably numb in her own world. She would also get angry in a snap, for no valid reason, show lots of impatience towards all, and develop high levels of empathy. She would be touched to tears only by seeing someone she did not even know rushing to the bathroom because crying.

Those indicators were sufficient to suspect the presence of a gifted person within a realm of failure, who either had not been identified or who had been diagnosed but not further supported. So we grabbed her file and checked her previous academic results. The numbers confirmed our suspicion. Her grades' standard deviation was extremely high, meaning she was capable of the best as well as of the worst. And interestingly, she was average in group work, excellent in critical thinking, and poor in formatted topics, which could easily be explained. Others performed group work, critical thinking opened new perspectives to her, and formatted topics like fiscal methods, made her believe there was nothing to do but swallow and digest the never ending flood of new rules and regulations.

Penelope gave us further information while interviewed. She was coming from a great family. Her parents were divorced but she had received lots of love and care from both, as well as from her grandparents. The revenues of the family were modest but she had lacked nothing. From a sentimental point of view, alongside classical little heart breakings with boys, she had never suffered from severe emotional pains. All in all, the lady was fine, which she confirmed all along our interview. Yet, she was wondering why we were meeting with her and asking so many private questions. We merely told her this was a common procedure for all instructors to greet and meet with students to make sure that everything was fine. In this regard, she was not a special case.

During our interview, we felt lots of resistance from Penelope. She would play pretend, looking fine and giving an image of well-being but her eyes, breath, and general non-verbal behaviour would say the exact opposite. So once back in class, we started focus on her much more accurately than in the previous days in order to try and break the shield she had built around her. Teaching her Consumer Behaviour would give us the opportunity to perform further experiences without any disturbance for the rest of the class.

So we imagined a psychodrama-based game that would satisfy both goals of teaching our students and possibly detecting Penelope's giftedness. We asked our students to work in groups on the influence and the manipulation of someone of their choice from the classroom. Our objective was to sharpen the diagnosis. If proven right, she would feel both in danger to be chosen as a target by one group and excited to use her capabilities to manipulate someone. We believed this was a relevant scenario to further observe deviant reactions

from her, which would confirm or not her gifted status. And this is exactly what has happened. She outstandingly performed in manipulating someone, and she got trapped notwithstanding her anger and will to stay out of the game as a target.

Students would naturally go for the weak one(s) around them, either with good intentions or, in case of poor self-confidence, merely to feel better in their own condition. While passing through all the groups to supervise their scenario, we unsurprisingly realized that Penelope was a recurrent target. Since she was always alone, students had no specific empathy to go for her whereas they would feel less comfortable in doing so with their so-called friends. We did not interfere in any way in their choice and let things go. In the case of Penelope, who had obviously chosen to work alone, she would tell us she had decided to target another lady, without justifying her choice. Her objective was to make her blush in front of the class after whispering her something.

The groups started to perform. As previously said, Penelope was a recurrent target. The students imagined situations into which she was supposed to get angry but she would never fall in the trap because after being targeted once, she locked up and became inaccessible to any stimulus. And the more the students would admit she was the target, the more she would protect herself, eventually leaving no chance to any group to reach her. At that point, one group of students imagined a timeless movie scene in order to make use of as many participants as possible, with the objective to create frustration in Penelope's mind for her to wear another student's helmet willingly. To shadow their project to Penelope's eyes, they asked some students to join them on stage to play the role of a train, then to dance western-movies style, etc., slowly transferring most of the audience from sitting in the class to standing in front of the class, playing various absurd roles. In the middle of this noisy action, they smartly asked Penelope to come and play the role of a helicopter's pilot, which she declined, persuaded to be the target. Her own helmet - she had one - was then borrowed, leaving her without accessory. Two more students joined the team, one of them wearing Penelope's helmet, so all were moving, dancing, and playing their respective roles.

While the audience was moving from sitting to standing, Penelope would then feel rejected and frustrated not to play with the others, forgetting her fears while watching the show. So when the team leader said they would now need one last actor, a motorbike pilot, Penelope naturally raised her hand to participate. This was her last chance to be in the picture and she was now convinced not to be the target. Anyway, in case she were, it would be among a multiple target, the whole performing group, so this was an acceptable consensus for her. Even isolated, the human being remains a social animal and naturally feels better within a group.

Penelope willingly joined the players. Since her helmet was no longer available, she had no other option but borrow another student's one. In such a dynamics, everyone had forgotten the purpose of the game, including Penelope, and all were enjoying the moment, without ever thinking or fearing being the target. Then, the team leader stopped the whole and everyone went back to their seats, suddenly realizing what had just happened, questioning who eventually had eventually been targeted as silence was back inside the classroom. Penelope was shocked when she discovered she had been totally manipulated, and the objective had been reached. But she eventually accepted the game because her problem was not to be trapped. Her problem was to be trapped stupidly. And one should admit that, in this peculiar case, the influential team had made an efficient job by nearly using all students in order to decrease individual defenses, including Penelope's.

Last but not least, she then stood up to perform her own sketch. She tried to initiate the announced behaviour but unsuccessfully. We then stopped the experiment and started to explain her what went wrong. While commenting on her performance, she took a paper from her pocket on which was written that her real target was the teacher, with the objective to make him explain why her sketch did not work.

B. Perspectives And Limits

Penelope's capabilities confirmed her potential. Like in most of gifted cases, after further discussion with her, she admitted suspecting she might have been different but as bipolar and somehow schizophrenic, not gifted. She actually had never dared consulting a professional, scared from what she could discover. The Mensa Association later confirmed her giftedness upon testing her directly. Penelope's case surely highlights French universities' limitations when dealing with gifted students. Both identification and integration are at stake and, following the experience described here, new student experience processes should be investigated, such as:

- Contacting the pre-A 'Level school of origin to determine if the student was ever diagnosed gifted and, if yes, what had been done in this regard.

- Introducing IQ (*i.e.* intellectual) and EQ-tests (*i.e.* emotional) in all recruitment exams.

- Ensuring the presence of a psychologist during professional project interviews when teachers suspect the presence of gifted students, to confirm or not the data.

- Facilitating professional development of all colleagues who would be interested in focusing on the case of gifted students in order to build up a dedicated panel of internal resources.

- Making students sensible to the possible presence of gifted subjects among their groups of study for them to accept their differences and behave in a way to help them find a place in a society that is not ready to tolerate such discrepancies, *i.e.* understand that gifted people suffer and do not try to dominate anyone in any way.

- Developing new teaching and learning techniques, such as blended learning, problem-based learning, and *in situ* training to widen the scope of academic solutions professionals could use towards cohort of students made of both gifted and normal individuals.

- And requiring from the next generations of teachers to prove their ability to cope with such specific cases alongside research requirements before being permanently appointed in their position, especially when being challenged by superior minds while delivering their teaching.

Yet, the marginality of giftedness could limit such important resources, additional disorders could harm gifted students' potential, and the definition's realm of talent is so controversial that caring for gifted students might not soon be a priority in future academic endeavors.

6. CONCLUSION

The objectives of this research were to present the importance for the French higher education to consider student's giftedness as one of the key challenges to deal with, while developing prospective international competitive strategies. Currently, the gap between schools and universities is not bridged, resulting in the loss of a majority of amazing talents and special human resources. The fact that Penelope was never diagnosed as a gifted girl at school sadly proves that if upstream efforts are made, the filters are still permeable. Intelligence is a complex concept that cannot be separated from its emotional twin, and the latter brings huge amounts of distress and mental pain to gifted people. Shouldn't this justify building a social responsibility framework to care for them the same way we do care for simple minds?

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