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THROUGH THE LOOKING-GLASS:
UNDERSTANDING THE SOCIAL DYNAMICS OF HUMAN NATURE AND GIFTED IDENTITY

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Through the looking-glass: understanding the social dynamics of human nature and gifted identity

"I'm just one hundred and one, five months and a day."
"I can't believe that!" said Alice.
"Can't you?" the Queen said in a pitying tone. "Try again: draw a long breath, and shut your eyes."
Alice laughed. "There's no use trying," she said: "one can't believe impossible things."
"I daresay you haven't had much practice," said the Queen. "When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast."

(From Lewis Carroll’s children's book Through the looking-glass, from 1871)

Who are the gifted? This is a simple enough a question it would seem. After all, the notion of high ability has been studied more or less systematically for almost one hundred years. In the 1920s, American psychologist Lewis Terman and his associates launched a pioneering research project on the subject: Genetic Studies of Genius (Terman, 1926; Terman & Oden, 1947). Over time the work of Terman and his fellow researchers generated a plethora of research and a multitude of theories of how gifted individuals should most appropriately be defined and identified (e.g., Subotnik & Arnold, 1995). In spite of an astounding international research effort, however, surprisingly few answers have been generated on which the worldwide community of scholars have been able to agree (Dai, 2010; Persson, 2013). For this reason, at its most extreme, it has been suggested that any effort to label anyone as gifted or not gifted should simply be abandoned altogether (Borland, 2005). Yet, there is invariably a group of individuals, in any population, standing out because of their achievements, levels of knowledge and insight, personality attributes and, in more evolutionary terms, they stand out also with regard to their social function in the community (Persson, 2009). These outstanding individuals have indeed been identified and recognized throughout human history but by different societal groups with different interests in them and, in addition, by different means as based on varying understandings of who they are (Grinder, 1985; Persson, 2014a; Tannenbaum, 1993).
In a sense, Lewis Carrolls’ famous children’s book, charmingly and probably quite unintentionally, suggests an often neglected dimension of understanding and identifying this particular group of individuals. Carroll’s book demonstrates a type of universal denominator by which to identify the gifted individual through the centuries irrespective of their country of origin: “… Sometimes I’ve believed as many as six impossible things before breakfast,” says the Queen—not Alice—in Carroll’s fairytale, taking place on the reverse side of a mirror; a world where everything is different, opposite, frightening, and makes very little sense. At least it seems so to Alice being unaccustomed to an alternative reality and therefore unable to see its logic. Similarly, the gifted individual, irrespective of how giftedness is defined theoretically, tends to see the world in a different way. When communicating their thinking and understanding to others they are often misunderstood or ignored by the surrounding society, including, at times, even their own families (Persson, 2010). While a gifted individual identifies a rational pattern and might be able to explain what this pattern is and why it occurs, others perceive the same as a bewildering and perhaps irrational chaos. They do not believe that what they see is of any significance. While routine, cherishing the familiar, and preferring the unchanging, tend to constitute the basis of everyday life for most individuals in any population, it is rather the breaking of routine, discovering the unknown, and observing things usually unseen by others, that is more often the unavoidable way of life for gifted individuals. The reason being that the gifted mind simply operates differently in comparison to a non-gifted mind. As Geake (2009) concluded in surveying the available evidence from brain research, gifted performance arises from functional plasticity enhanced through positive feedback.

In other words, gifted individuals cannot help being gifted, and therefore cannot help learning like the gifted do, because of, and as a result of, their “gifted brains.”

To be different than most others and unable to identify with them; existing in an inner world of profound insight, feeling, conviction, and understanding, most of which seem strange and unreal to others, is uncomfortable—if not traumatic—to any gifted child or adult alike. The human species is
a social one shunning imposed isolation; seeking a meaningful social context where such can be found. Everyone needs to experience a sense of belonging; to have someone who accepts you, likes you, understands how you reason and know your preferences, and who—to a degree—you can actually be like and identify with (Baumeister, 2012; Bloom, 1995). However, someone who is perceived as being too different in a 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 (Oust, Rudasill & Callahan, 2006). In addition, deviating from the social norm is most likely more of a problem in collectively oriented cultures—more characterized by the demand for conformism—and less of a problem in more individualistically oriented cultures (Crystal, 2000; Toivonen, Norasakkunkit, & Uchida, 2011). All cultures, however, have limits for what is considered acceptable and to what degree deviating from established norms can be tolerated. Exceeding these cultural and often tacit boundaries will invariably trigger a negative response and lead to suspicion, avoidance, marginalization, social exclusion, and over time, even to stigmatization (Crocker & Quinn, 2003).

Lewis Carroll’s reality traveler Alice was regarded as strange and ignorant in the world behind the mirror. To be gifted is always to be different in comparison to the mainstream. It is in fact to be not normal! Furthermore, it is often to be different in such a way that social norms for acceptance and tolerance are exceeded, sometimes by far.

This chapter aims to outline an often ignored, but nevertheless essential, basis for the understanding of high ability and the highly able in society, namely the social dynamics of evolutionary forces as we currently know and understand them. This is a rarely discussed, perhaps even avoided, subject as researchers and practitioners focus on gifted education, high ability, and its identification. What
the natural and life sciences already know of human nature, rarely finds its way into the discourse of social sciences and education (see Gintis, 2007; and Pinker, 2002). This chapter, therefore, begins with addressing the fact that, in terms of high intellectual ability, with level of abstraction there comes a certain identifiable pattern of behaviors. For practical reasons, it is useful to understand the highly able demonstrating these behavioral patterns as largely two separate groups: the intellectual high achievers and the intellectually gifted. Then follows a discussion of high ability as extreme human behavior which, as a rule, has considerable implications for societal acceptance and career success. The degree of social fit and its determinants lead to a discussion on how extreme behavior is related to social fit in a school context, and later in life, also at work. The more extreme the behavior, the more difficult also adapting to a social setting based on a mainstream population. In conclusion, on the basis of the social dynamics prompted by human nature, some light is shed on the increasing political and economic interest worldwide for individuals capable of ingenious problem solving, creativity, innovation, production, and superior understanding of many of the challenges that humankind has to grapple with.

**High achievement and intellectual giftedness: Is there a difference?**

It is important to recognize that the notion of high ability is a differentiated construct and has different meanings in different societal contexts (Persson, 2014a). High achievement and giftedness are not necessarily synonymous terms even though they are sometimes used interchangeably. Both categories of individuals can potentially achieve and perform at a level surpassing a population majority, but the gifted—for a number of reasons—generally exceeds the high-achiever in performance, understanding, level of abstraction, individuality, intensity, creativity, and so on (e.g., Kokot, 1999; Ruf, 2009). It is fair to say that the two terms largely also represent different theoretical schools of thought in the world of research: cognitive expertise and trait psychology. But more importantly, from the perspective of parents, teachers, and employers, the high-achiever, while having less of an edge, is likely to be more socially acceptable and more easily appreciated by
society than the intellectually gifted, who is likely to have to struggle for acceptance and recognition. The gifted are more extreme than the high-achieving group and are therefore also less understood and more prone to becoming subject to suspicion and social exclusion.

While the study of high human ability is fraught with differences of opinion and definitions, there appears to exist some agreement on the fact that the group of individuals in a population constituting individuals of high ability is not a homogenous group. They differ amongst themselves not only in terms of cognitive and creative abilities, but also in terms of how they develop from an early age, their social-affective situation, personal characteristics and, of course, in terms of to what degree they deviate in comparison to societal norms and behaviors (Gross, 1993; Hollingworth, 1942; Mendaglio; 2008; Salovey & Mayer. 1990). In spite of disagreements and theoretical discrepancies efforts have nevertheless been made to differentiate this group on the basis of normally distributed IQ-measures spanning from the basically gifted and to the extremely (or profoundly) gifted (e.g., Gagné; 1993; Gross, 1993). Gagné (1993) suggested to divide giftedness into four degrees of increasing ability levels as based on the normal distribution of test scores, where each degree is separated by one standard deviation (see Figure 1). However, it makes more practical sense to collapse these four degrees into only two categories of ability levels—both of which are already in use but with no agreed-upon theoretical distinction as yet—namely, into high-achieving individuals (the lower-scoring group with test results 1-2 SD beyond the population average) and into intellectually gifted individuals (the higher-scoring group with test results 3-4 SD
beyond the population average). The reason for differentiation beyond the population mean score of IQ100 is motivated by qualitative differences in behavior known to exist between lower-scoring and higher-scoring individuals on IQ-measures (Gross, 1993; Hollingworth, 1942). The same is also true for individuals with intellectual disability, which is already an established fact in theory and general practice for individuals scoring IQ70 and below; that is, well below the population average (or 2 SD below). Each degree of decreasing ability: from mild, moderate, severe, and to profound, also as based on the normal distribution of IQ-scores, represents qualitative differences in individual behaviors and abilities necessary to manage everyday life (American Psychiatric Association, 1994).

There is largely agreement on the fact that intellectual giftedness is more than merely scoring a certain level of IQ on a psychometric test. Intellectual giftedness is also, as Renzulli (2005) has
suggested, a beyond-average degree of creativity, motivation, and task commitment. Similarly, the Munich Giftedness Model has proposed four core aspects of high ability: Ability factors, Social factors, Personality factors, and Achievement domains (Heller & Perleth, 2007). In recent years personal characteristics have been brought into the complex picture describing what typically characterizes giftedness also. The most significant of these additional identifiers is perhaps Kazimierz Dabrowski’s Theory of Positive Disintegration. From this framework particularly the notion of overexcitabilities has been applied to describe the highly gifted, but not necessarily the high-achievers (see Mendaglio, 2008). These overexcitabilities, especially the imaginative, intellectual, and emotional, tend to cause the gifted individual to experience daily life more intensely than most others do. This is very succinctly illustrated by Nobel Prize Laureate Bertrand Russell (1998, p. xi), who—in quoting Lord Byron’s poem Don Juan—proclaims that:

\[
\text{Sorrow is knowledge; they who know the most} \\
\text{Must mourn the deepest o’er fatal truth.} \\
\text{The Tree of Knowledge is not that of Life.}
\]

Put differently, the great knowledge acquired by Bertrand Russell and other intellectually gifted individuals comes with an often unanticipated cost. To know and understand, wanting to altruistically share acquired knowledge with others, but only to find no one who wants to listen, or who can even understand what they say or write, is a most frustrating experience (see Fiedler, 1999; Leary, 2001; and also Pfeiffer, 2006).
The intellectually gifted has typically been described in the literature as being free spirits, morally astute, idealist and visionary, empathic, independent, individual, and often rebellious (Shaughnessy & Manz, 1991; Shekerjian, 1990; Winner, 1996). Janos and Robinson (1985) summarized the known typical traits of intellectually gifted individuals as self-sufficient, independent, autonomous, dominant and individual, self-directed, intellectually curious, reflective, creative, imaginative, and non-conformist. Not forgetting that variation between highly able individuals is considerable, it is still useful to illustrate the potential difference between the personal characteristics of the high achieving individuals as opposed to the intellectually gifted as in Figure 2. Note that to be identified as gifted rather than as a high-achiever does not mean that you lack the ability to be productive in an extraordinary way. On the contrary! Both categories usually have this particular characteristic, but the group of intellectually gifted is more extreme and tends to have a more charismatic
personality. The high-achievers are likely to lack several or many of the typifying traits. The
illustration in Figure 2 needs to be thought of as a continuous dimension between the less extreme
and the more extreme. The higher the degree of ability the more intense and different the individual
is likely to be in comparison to the general population. The highly achieving individual, on the other
hand, may well show these characteristics to a degree but they are less obvious and not as extreme.
He or she is more similar in behavior to the general population than the gifted individual is; a
difference which has considerable social implications for tolerance and acceptance by society.

**Extreme behavior and societal context**

Some social norms are specific to certain cultures in the World, but there are also norms which are
universal typifying humanity as a social species; one species of primates amongst several
(Fernández-Armesto, 2004). Such norms are therefore part of all known cultures over time. About
400 such universals are currently known. All known cultures over time have, for example, had
leaderships, morals and values, and all cultures nurture a collective identity (Brown, 1991;
Norenzayan & Heine, 2005; Tooby & Cosmides, 1990). It follows that any perceived threat to these
will cause an aversive reaction. Sociobiological criminologists speak of universal crimes—*mala in
se*—such as rape, theft, homicide, and robbery, which are all harshly punished in every known
culture throughout history because they ultimately pose a threat to human survival, as opposed to
local legislation and crime—*mala prohibita*—serving other functions in only one or a limited
number of related cultures (Walsh & Ellis, 2003).

It is always an objective in all social groups that any perceived threat, unless it can be effectively
controlled, needs to be eliminated or at least neutralized. Nowhere in current society is this perhaps
more openly demonstrated, and in a perfectly acceptable way, than in modern democratic practice
and the manner in which political parties are held together and lead. Researchers Alford and
Hibbing (2004) outline how the dynamics of this works, and make a point of emphasizing that the base for the strategy is indeed evolutionary in origin:

1. To belong to a group it is first required that one cooperates with its members.
2. It is also required that members should regard members of other groups with some level of suspicion.
3. Members of the group who for some reason do not wish to cooperate must be suitably disciplined. If this does not convince them to return to submission and loyalty they need to be expelled from the group.
4. All members should continuously encourage one another to cooperation; to be wary of other groups, and make sure that all members follow acceptable behavior.
5. Every member in the group needs to be sensitive to social status, rewards, and praise, and good reputation as it relates to members of the group and therefore also to the group as a whole.
6. If for some reason an insubordinate and rouge member remains undisciplined members must cease any cooperation with such a member and ostracize him or her.

Group cohesion is an important issue not only in party politics but even more so in the survival of human society over time. This is the reason every culture also features social phenomena such as marginalization and stigmatization. Crocker and Quinn (2003) define the latter as “[having] a social identity, or membership in some social category, that raises doubts about one’s full humanity. One is devalued, spoiled, or flawed in the eyes of others . . . Stigmatized individuals are often the targets of negative stereotypes and elicit emotional reactions such as pity, anger, anxiety or disgust but the central feature of social stigma is devaluation and dehumanization by others” (p. 153).

Marginalization, on the other hand, is the peripheralization of individuals and groups from a dominant, central majority (Hall, Stevens & Meleis, 1994). In society, outside of the corridors of political power, it is very likely that this tendency to react aversively to individuals who deviate too much from what is considered generally acceptable by the majority of people, has biological origins and is deeply rooted in the human species’ need to live and exist in effective groups (Neuberg, Smith, & Asher, 2003). Being too different than the group to which one belongs, or is associated with; being perceived as violating implicit or explicit norms, or being merely perceived as having the potential to violate them, is cause for group members to react more or less automatically and unaware, in a negative fashion, with an ultimate objective of self or group preservation. This is true
also of other primates. Nishida and his fellow researchers (1995) discovered that chimpanzees collectively would punish what they perceived as “ill-mannered members” of the group. The same is also being considered in regard to spider monkeys (Valero, Shaffner, Vick et al., 2006).

As discovered by Judge, Colbert, and Lilies (2004) in studying IQ-levels and leadership: “… It is dysfunctional for a leader’s intelligence to substantially exceed that of the group he or she leads. This suggests that group intelligence moderates the relationship between leader intelligence and leader effectiveness … group members simply do not like leaders whose intellect far exceeds their own” (p. 549). In fact, to differ too much from the rest of any group, by whatever means, has never been acceptable in any culture. The ones who did, even thousands of years ago, as far as we can tell from the anthropological evidence still remaining, were ridiculed, taunted, warned, marginalized, punished—and in extreme cases—even terminated once and for all (Shultziner et al., 2010).

Being different is not necessarily a problem up to a point. Levels of tolerance and acceptance for different behaviors vary between groups and cultures, and over time. It is for example, on a population level, currently more acceptable to be intellectually very able in Germany, Switzerland, Austria, and in the Netherlands, than it is in Sweden, Norway, France, and Italy. While at the same time admiration for artistic expression, entertainment, and sport achievements, abounds in all European nations. Countries have varying ability climates prompting individual cultures to value skills and knowledge differently and according to certain patterns. If someone is highly skilled in a certain field they are likely to find greater acceptance and appreciation in one country rather than in another, and vice versa: they are likely to be ignored or even rejected for showing promise in a field of pursuit which is little valued in the country where he or she is growing up and eventually seeks to pursue a career in (Persson, 2011). It is not unusual for such individuals to leave the country and seek their fortune elsewhere; a phenomenon termed brain drain (e.g., Beine, Docquier & Rapoport, 2001).
Hence, human nature is alive and well, and remains unchanged throughout history even though the human habitat is constantly changing. Technological progress and development have not discernibly changed the genetic blueprint for human social behavior (Voland, 2007). For this reason, it is important when studying high ability and its function in society, “that we are aware of the more primitive action and reaction patterns that determine our behavior, and to not pretend as if they did not exist. It is especially in the area of social behavior that we are less free to act than we generally assume” (Eibl-Eibesfeldt, 1989, p. 3). It is feasible that the much needed, but very elusive consensus on defining what giftedness is and what giftedness does in society, is due to ignoring universal human nature as the foundation for understanding human behavior. Our refusal to often do so, Harvard University’s Steven Pinker (2002) has argued, “is like the Victorians’ embarrassment about sex, only worse: it distorts our science and scholarship, our public discourse, and our day-to-day lives … The dogma that human nature does not exist, in the face of evidence from science and common sense that it does, is … a corrupting influence” (p. ix)

The highly able in school and at work

Given these sociobiologically determined, and therefore universal, constraints on behavior in any group anywhere, large or small, then how does an intellectually gifted individual or a high-achieving individual fare socially in a normal population; or in a group culled from mainly the majority of a normal population? Winner (1996) suggested, that the intellectually gifted are risk-takers with a desire to shake things up. Most of all they have the desire to make things right, “to alter the status quo and shake up established tradition. Creators do not accept the prevailing view. They are oppositional and discontented” (p. 276). Clearly, intellectually gifted individuals may well be a handful to any social group that does not consist of equals with whom they can actually identify. Unless, for the sake of social inclusion, they choose to “be like everyone else”, intentionally forfeiting their giftedness. Such a choice, however, which a number of highly able
individuals appear to make is likely to be the their greatest challenge in life (Oust, Rudasill & Callahan, 2006). They will have to approach the ones who for many years have perhaps shunned them, ridiculed them, ignored them, and choose to accept their slower ways and more limited understanding (Persson, 2007). 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. As Freeman (2005) has very appropriately phrased it: “They need permission to be gifted.”

Importantly, being less extreme is of course, as a rule, more socially acceptable evoking much less aversive reactions from the surrounding social context. Hence, the high-achieving individuals are likely to often have a better social fit in any group or organization. This is an observation made by Brown and Hesketh (2004), who in their proposed talent management model, divides highly able applicants to jobs into four different categories:

*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

*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 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.

Brown and Hesketh (2004) are largely making the same division into intellectually gifted individuals and into high-achieving individuals as made earlier in this chapter. The Razors and The Iffys are both intellectually gifted but with the difference that individuals belonging to the Razors Category also feature psychopathic tendencies; a growing problem in the corporate world (e.g., Boddy, Ladyshewsky & Galvin, 2010). The Iffys, on the other hand, are much too idealistic, independent, and stubborn for most organizations to handle, but nevertheless coincide in description with much of what research has shown are often the traits of the intellectually gifted (e.g., Nauta & Ronner, 2008). Note that extremely creative applicants tend not to do well at job interviews. They are often seen as troublemakers (Furnham, 2008).

The Star on the other hand, is more of a high-achiever but is lacking in the personal characteristics typifying the gifted individual. The Safe Bets, finally, are borderline high-achievers who, in comparison to Gagné’s (1993) proposed division would be categorized as basic. They are still high-achievers, and are as such anything but average in terms of intellectual ability. But their contributing value to employers and society in terms of production potential is less certain. Since both Stars and Safe Bets are less extreme than Iffys and Razors, and are closer to the population average, it is less of a challenge for most of them to fit into a group. They are likely to be more adaptable, and can tolerate discrepancies in logic and competence between themselves and others much better (e.g., van der Heijden, 1998). The implications of this for working life are the following:
If the greatest creative output and most ingenious solutions to problems are required, an employer needs to hire an intellectually gifted individual. But this also means that the employer must be prepared to create conditions within the organization conducive to how the intellectually gifted actually functions. The social dynamics between the gifted and the non-gifted in the organization needs to be considered. Perceived acceptance and relative freedom is a necessity (Amabile, 1988; Pink, 2009). How the employing organization functions in terms of its own unique culture must be taken into account (Sternberg & Lubart, 1995).

If the employer is not prepared to accommodate gifted individuals in the organization, and is also not in need of the most brilliant solutions and innovations, then the employer is better off with hiring an intellectual high-achiever. Theoretically, there is a possibility that the combined creative and intellectual ability of a collective could perhaps compensate for one single gifted individual. This is quite in line with universal human behavior (Lévy, 1994; Paulus & Nijstad, 2003; Surowiecki, 2004). But, the difficulty in such a solution is to successfully forge together a group of individuals being accepting and appreciative of one another. Successful team building is not impossible, but remains complicated and somewhat difficult to achieve (e.g., LePine, 2005; Stewart, 2006). In very pragmatic terms, therefore, it might perhaps be more cost-effective to actually hire the single gifted intellectual rather than to spend money on recruiting and training an entire team for single projects!

It is most likely not possible to hire high-achieving individuals and then expect of them the same level of production, ingenuity, insight, efficiency, and creativity, as that of intellectually gifted individuals. There is currently considerable confusion in the world of policy-making and in business organizations on who is what, and who can do what, and under which circumstances, in terms of individuals of high ability (Lackner, 2012; Nauta & Ronner, 2013; Persson, 2014a).

This division of the highly able into high-achievers and gifted has of course also implications for school systems, education policies, and generally for education at all levels:
• Intellectually gifted children will have a considerable need of support, understanding, and stimulation in school. In one Swedish study of 287 intellectually gifted individuals; all with an IQ of 131 or higher, 92% suffered hellishly in school from boredom and alienation (Persson, 2010). A few of these were even reported to as suicidal because of what they experienced as students. However, it should be said that at the time the Swedish school system did not recognize giftedness as a viable reason for any kind of special support. The research nevertheless shows how important it is to recognize and accept these children, and to stimulate them at their level of knowledge. These are in all likelihood the children who pose the questions, are intensely curious, show passionate interest, are opinionated, usually know much of the normal curriculum already, prefer the company of adults, make deductions, create and design new things, love learning but not necessarily school, thrive on complexity, are exceedingly observant, and are often very critical of themselves (Kokot, 1999); at times even to a fault (Nugent, 2000).

• Academically high-achieving children, on the other hand, will also need support and stimulation adapted to fit their level of ability. However, these children, by virtue of being less extreme than the gifted ones, are more likely to fit into the social fabric of the classroom and may well be understood by teachers as “paragons of virtue.” They learn effectively, are generally sociable, and usually submit to teacher’s wishes without necessarily questioning them. They may well become “teachers’ pets” (Persson, 1998). These children usually know the answers to posed questions; they are interested rather than intensely curious, interested but not necessarily passionate. They learn with ease, usually like the company of their fellow students, understand what is taught but do not necessarily make deductions and inferences from it. They imitate rather than create and innovate, enjoy school, prefer simple serial progression, are keen and alert, and are generally satisfied with school and what it has to offer without being too critical and not necessarily perfectionist (Kokot, 1999).
Both groups of students need special provision and teachers must have knowledge of who they are and be able to meet with their needs (Baldwin, 1993). It is perfectly feasibly to argue that the need for intervention in a school system for the benefit of highly able children is greater for the intellectually gifted children than it is for the high-achieving children. While inclusion is desirable and is also the educational principle which school systems worldwide have been recommended to follow (UNESCO, 1994), a viable case could certainly be made also for separate, or partially separate, education for the intellectually gifted only. Inclusion is above all an ideology, and does as such correspond to how we wish society to function and be like rather than to how it sometimes actually functions (Kauffman & Hallahan, 1995). The greatest needs of the intellectually gifted children, most likely, are recognition, acceptance; feeling that they are actively participating in a social context, and in this context that they can perceive the freedom to be themselves (Granlund et al., 2011; Harrison, 2004; Prior, 2011). Is this possible in an inclusive classroom consisting mainly of individuals with whom they cannot identify and who are largely unable to understand them?

Inclusion is less complicated an issue in regard to high-achieving children, and more complicated with intellectually gifted children. A key issue is whether these children—both gifted and high-achieving alike—meet other similar children with whom they can identify, and of course also to what degree education can be made personal rather than collective (e.g., Robinson & Campbell, 2010). Beyond doubt, the intellectually gifted child puts a greater demand on schools and educational systems than do high-achieving children.

**Wonderland wishes and real world existence**

The study of giftedness and high achievement has for some time had political overtones. The notion that individuals exist who are capable of ingenious problem solving, creativity, innovation, production, and superior understanding of many of the challenges that humankind has to grapple with, presents both an allure and a challenge to policy makers and industry. Former British Prime
Minister Tony Blair declared, that “talent is 21st century wealth” (quoted in Brown & Hesketh, 2004, p. 1). In fact, “to give a fair chance to potential creativity,” British historian Arnold J. Toynbee (1967) argued, “is a matter of life and death for any society. This is all-important, because the outstanding creative ability of a fairly small percentage of the population is mankind’s ultimate capital asset, the only one with which Man has been endowed” (p. 24). It is obvious that highly able individuals are viewed as saviors of the World; knights in shining armor coming to the rescue in times of great need warranting the future welfare of humankind. But above all, he or she are increasingly being construed as commercial heroes, capable of providing marketable innovation and commercial edge since “nurturing the gifted and talented,” Sever argued (2011), “… will guarantee a constant reservoir of individuals who will later lead both … research and development, and education, thus continuing to propel recruitment of the community, the State, and humanity at large toward a knowledge-based economy” (p. 454).

Understanding highly able individuals as ultimate and much admired individuals of guaranteed success is, by and large, a generally flawed notion, the reasons for which have been discussed earlier in this chapter. Such an understanding is more likely to be the product of wishful thinking and perhaps generally an expression of our collective and psychological need for heroes (Alison & Goethals, 2011). It is worth noting that the beliefs, wishes, and convictions that we often count on as being very real, might in fact—in a more objective sense—rather be a clever ruse designed by evolution. “Illusions are generally useful,” Austrian neurologist and philosopher Franz M. Wuetits (2008) argued, “they may as a result of evolution, through natural selection, actually be instrumental in serving our survival” (p. 6, author’s translation). In other words, 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).
The reality of many intellectually gifted individuals—though there are perhaps exceptions—is often quite different than our projections of the highly able as future revered and acclaimed heroes of achievement, innovation, and unbridled success. Having surveyed the available research literature Fielder (1999) concluded that “along with the promise of potential come the problems of potential—problems that are often a direct effect of differing from the norm in ways that others are not necessarily prepared to deal with” (p. 434). There are a number of challenges, social in nature, which any intellectually gifted individual will have to face; and the intellectually gifted more so than the high-achieving individuals. How these challenges are dealt with is likely to decide their social status in any community worldwide, and therefore also determine their degree of societally acknowledged “success”. There are a few simple but very fundamental principles, prompted by the dynamics of human nature, which need to be successfully operationalized for anyone to gain societal acceptance making such success possible:

1. In a normal population, you must be perceived as being more like most others rather than being perceived as dissimilar in comparison to most others.

2. To be merely tolerated in a social setting is not enough. You must also be accepted, recognized, and given trust and relative freedom by the majority of this social context.

3. To be accepted by the majority of any social context, you must also accept and be patient with their standards, understanding, and levels of ability.

These principles are not easy to comply with. In addition, they cannot guarantee success—humanity also has to deal with unpredictable chance and randomness—but they are nevertheless prerequisites for being seen by society as successful and—as is the theme of this anthology—to be able to shine when appreciated by society.
The highly able are probably not suitable leaders to a large normal population. Simonton (1994) pointed out that an IQ near 119 (that is, 1-1.5 standard deviations above the group mean) is the ideal level for successful leadership in social, military, industrial, and political settings. The higher the IQ beyond this the fewer the followers, since they would find it increasingly difficult to identify with such a leader. Conversely, the lower the IQ below this optimum, the more difficult the leader would have understanding his or her context and its associates. As a result, increasingly fewer would see such an individual as “leadership material.”

Jonathan Wai (2012) of Duke University, boldly stated that the scary smart are also the scary rich, citing the Forbe’s list on the World’s 400 wealthiest individuals as evidence. While this could perhaps be true in one sense, it is important to consider the known personal characteristics prompting such financial success. Some researchers have warned of the close relationship between extreme success in business and sociopathy (Boddy, Ladyshewsky & Galvin, 2010). While such individuals are indeed successful taking incredible risks for gain and profit—The Razors in Brown and Hesketh’s (2004) terminology—they appear to often do so at the expense of everyone else with whom they are linked. There will be victims in their wake (Babiak & Hare, 2006). To argue, therefore, that highly able children, with the proper training and support, are destined become the leaders of tomorrow, is a hope fraught with problems. In both research and practice, as Steven Pinker (2002) pointed out, we tend to ignore human nature and how it relates to society, its structure, function, and social behavior. We are keen to support—for a number of reasons—what is often likely to be an illusion more than an objective reality.

It seems that a first important step in improving chances of high ability acceptance in any social context would be to share with children not only what they can potentially achieve, but also share which obstacles they are likely to encounter as they develop and prepare for professional life. From
a suitable age they will need to be armed with an understanding of the boundaries presented by the social dynamics of human nature.

In a frank discussion with an American colleague on this topic, it was argued that such a suggestion was verging on the preposterous and nothing short of being “defeatist”. In my colleague’s view, children should always be encouraged to believe, and be taught accordingly, that all things are possible if they work and study hard enough. To say that something is impossible was simply unthinkable; and especially to convey this to highly able children in school. This belief in the potentially unlimited human possibility for each and every student is probably echoed by most educators in the Western World. The sentiment is fully in line with the often referred-to American Dream (cf. Luntz, 2009). This dream is a cultural ideal in more countries than in the United States. The traditional American Dream, however, is an impossible one and has been declared wanting in the light of accumulated research findings (Sternberg, 1996). It also facing an ever-changing modern society, which increasingly imposes obstacles on desired and seemingly unlimited futures (Moen & Roehling, 2005). In the light of above all research results, however, there is overwhelming evidence of the inseparable interplay between genetic and environmental influences on human development and behavior. It is simply not true that we are all born as blank slates (Pinker, 2002), enabling us to become and do successfully whatever we choose to do, not even if we apply ourselves diligently and consistently in trying to make our dreams and wishes come true. Deliberate practice, hard work, and determination are all aspects of human behavior that will help develop skills and facilitate development to a degree. But these cannot cause the impossible and make skills emerge for which a suitable genotype does not exist, nor can they create social receptivity and acceptance for everything that we happen to favor and choose. In other words, social self-determination is most likely more limited than we would like it to be. We would be wise to learn to handle this from a suitable age (Duchaine, Cosmides, & Tooby 2001; Harris, 2012; Eibl-Eibesfeldt, 1989; Shakeshaft el al, 2013; van Ginneken, 2003; Wuketits, 2008).
Our quest for providing a successful and much appreciated place in society for the highly able should perhaps begin with assisting them in finding and accepting their own limits. Then to help and support them to do great things—but, within the boundaries set by human nature. Such a strategy would most certainly constitute a sound basis for mental health and a proper development of identity (Phillips & Zimmerman, 1990). To set targets too high, not recognizing existing boundaries, and then failing to reach them has negative consequences for identity development, and is cause for depression (Baumeister, Heatherton & Tice, 1993; Schwartz, 1974). We do need to teach our highly able children more about social reality than about social illusion. Goal-setting theory holds that we develop through setting specific goals of suitable difficulty (see Kozulin, Gindis, Ageyev & Miller, 2003). We may certainly set amazing targets but they always need to relate to what seems feasible and probable—never impossible (Locke & Latham, 2002; 2006). That which seems impossible to society and its member may well seem possible to the highly able individual. But the same principle applies also to them: Targets need to be understood, well considered, and attainable in a progressive fashion over time. But due to the social dynamics universally dictated by human nature, will such targets be understood and acceptable to the majority of the population who is likely to benefit from them? If not understood, then they are likely to also be rejected.

**Conclusion**

So, we have come full circle: Lewis Carroll’s fictional character Alice was confused by the world she met behind the mirror. She encountered a strange and unfamiliar individual who “practiced impossible things for half-an-hour a day” and who “believed as many as six impossible things before breakfast”. This fictional description is in some ways applicable to highly able individuals and their existence in everyday life. They are the ones able to do and understand things out of reach for most others, but for this reason—because of the social dynamics prompted by human nature—they risk social exclusion and to become marginalized. Contrary to popular belief their acceptance
by society is never guaranteed. They are different than most others, and in terms of intellectually
gifted individuals, they are often too extreme for inclusion into settings constituted by, and
dependent on, the mainstream population. While most people may perhaps never learn to
understand the high-achievers and the gifted, given the restrictions imposed by lower abstraction
levels, the highly able—and especially the gifted—are better equipped to understand the majority of
the population.

British researcher Ken Richardson (1998) has argued, that “human potential is not in our genes; nor
is it in our environments; rather, it is created by a developmental regulatory system … when the
conditions in the cognition-culture complex permit or require it … This is not to argue that anybody
can do almost anything. But it is to stress that people’s current potentials and cognitive statuses are
products of development in a very broad sense, involving several levels of regulation in interaction
and transaction with each other, not ones cast in DNA or environments” (p. 204). Richardson makes
a fair point, which has also been made earlier in this chapter: no one can really achieve anything
and be recognized for it in a positive fashion, unless there first is acceptance and support by others.
It does take freedom to be highly able and only the social context can bestow this freedom onto
individuals. However, to argue, as Richardson does, that all human potential is, in a complex way,
entirely produced by a collective is much more doubtful. It is at the very least all too simplistic an
understanding. There clearly exist universal social algorithms dictating, above all, human collective
behavior. While research certainly has shown that a collective, sampled from a normal population,
is both more intelligent and creative than any random single individual, fact remains that certain
conditions still need to be met also for the collective (such as a team or a group) to function together
optimally. Acceptance and individually perceived freedom to act, and to speak with continued
respect of the group, are perhaps the most important conditions that need to be met (e.g., Amabile,
1988). For example, during the 1970s, prior to higher education becoming industrialized and
market-oriented, Kolstoe (1975) defined a “real university” as a place, where “a climate in which
fragile ideas are cultivated” (p. 136), meaning that there should be room for all ideas to be tried and explored just to see if they hold any promise. This is sadly a bygone era, and there is an abundance of literature on the decline of the necessary conditions for creative and innovative endeavors (e.g., Philo & Miller, 2001; Schrecker, 2010). In our day and time, there is little patience with “fragile ideas” as universities worldwide have developed into a teaching and production industry. Bennich-Björkman (2013) concludes, that as a consequence of this ‘slippery-slope’ effect, “academic researchers … accepting practices and norms evolving within the research industry … actually contribute to destroying or crucially damage preconditions for original innovation, and discovery” (p. 134).

Possibly, the academic world is not longer an obvious refuge for intellectually gifted and high-achieving individuals, since it no longer is willing to give them the freedom they need. Consider Peter Higgs, Nobel Prize Laureate in Physics 2013 and professor emeritus of Edinburgh University, who in an interview in The Guardian candidly told the reporter, that he would not have made his discoveries had he been forced to work in a contemporary university because of the production-oriented and collective nature of current research efforts, with a main focus on churning out papers in acknowledged journals. “It's difficult to imagine,” Higgs told the British newspaper, “how I would ever have enough peace and quiet in the present sort of climate to do what I did in 1964.” (Aitkenhead, 2013).

How can conditions for creativity, discovery, and innovation be met when one individual in a group or team happens to be intellectually gifted? It is probably possible for intellectual high-achievers to gain relative acceptance and also to earn respect and trust in such a context, but it becomes much more difficult for the intellectually gifted, who tends to be so much more independent and non-conformist. Irrespective of what causes human potential it is always, by necessity, subject to group cohesion and the dynamics by which cohesion is determined.
So, high ability in society, contributing to the welfare of us all, must be framed by a two-way intentional strategy: Society needs to learn who the highly able are to at all be able to bestow freedom on those who can possibly affect their everyday life in very positive ways. Conversely, the highly able—both the intellectually gifted and the highly able, will have to learn to identify the boundaries set by human nature and to learn patience.
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