

**Highly intelligent and gifted employees -
key to innovation?**

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Highly intelligent and gifted employees – key to innovation?

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Do people in the highest region of the IQ spectrum function better than others? Or worse? Or does it depend on certain factors? Little has been published on this subject. We present our own, wide-ranging experiences with gifted individuals. Giftedness is often accompanied by specific types of behaviour or characteristics. The gifted think in a critical manner, 'out of the box'. They do not allow themselves to be put under social pressure, and they dare to engage in debate with authorities. They see problems as challenges and are eager to solve them. We argue that most gifted people are capable of playing an important role in innovation. How can gifted individuals perform better and what can organisations do to create a favourable environment for them? The style of leadership and the prevailing culture within an organisation are important factors here. We propose conducting carefully constructed pilots. We believe that gifted people hold the key to innovation.

Keywords: Gifted adults, innovation, creativity, IQ, EQ, intelligence.

"Stimulating the talents of gifted people can be beneficial for the knowledge economy. Especially where new, smart solutions are required for major problems, where courage is needed to conduct experiments. We have to stop seeing the gifted as irritating know-it-alls, but start taking advantage of what they can offer by encouraging them". This is a noteworthy statement from the Dutch minister of Economic Affairs¹.

This statement refers on the one hand to the need for a knowledge economy and innovation, and on the other hand to the image of the gifted as irritating know-it-alls. The prevailing notions about giftedness are not very positive. For example, the well-known HRM publicist professor R. Vinke has said: "We have heard stories about the IQ club Mensa (people with an IQ higher than 180²). It is rare for such people to do well in society, because their brilliant brains also demonstrate a high degree of inappropriateness, sometimes expressed in a high level of social disability" (Vinke, 2005).

In this article, we base our perspective on the exact reverse of this image. We contend that there is a close link between giftedness and innovation: gifted people are capable of providing a unique and significant contribution to innovation in organisations. This requires that the organisation recognises, acknowledges and values the talents of the gifted. And it demands that the gifted employees demonstrate their high degree of intelligence and present their talents in a practically applicable manner. The aim of this article is to contribute to an effective collaboration between innovative organisations and implementing the creative talents of the gifted individual. This will lead to more and better innovations, as the minister

¹ TV broadcast 'Netwerk', 19 March 2006. Minister Brinkhorst is the only government representative to have said anything about gifted employees.

² This IQ level is far too high.

for Economic Affairs envisages, as well as to more contented employees. This article addresses the following questions:

- How do we recognise the gifted in the work environment (Section 2)?
- How do the gifted contribute to innovations (Sections 3 and 4)?
- Where can their innovative talents be used to their best advantage (Section 5)?
- How can we stimulate them to develop their talents (Section 6)?
- How can HRD officers match the demand for innovations in organisations with the supply of gifted talent (Section 7)?

First of all, we will discuss the sources we are basing our insights on.

1 Research method and sources

Very little has been published on the subject of gifted people in the work environment³. We have not come across any systematic reviews on gifted adults nor any quantitative research. In HRD publications, a link between cognitive intelligence (IQ) and innovation is rarely made. Additionally, for practical reasons, studies restrict themselves to IQ scores of up to around 130⁴. It is precisely in the small group with an IQ of above 130 (in other words, where being gifted starts) that we observe that creativity and the possibilities for innovation are present to a significantly greater extent. Because little has been published up till now, we will base this article on a large amount of biographical material originating from gifted employees. This material has been compiled from many coaching interviews and the corresponding biographical writing assignments. See Appendix 1 for a description of our research material. This material has been qualitatively analysed for this article from the perspective of innovation opportunities for organisations.

2 Recognising giftedness

Our literature study revealed that although a tendency within organisations does exist for stimulating innovation, this does not happen in a systematic and focused way. Companies would benefit if they were able to predict which employees or groups of employees were likely to produce innovations, but no progress has been made in this area as yet (Robinson & Stern, 1998). Because we believe that the gifted possess a more than average amount of innovative talent, it would be useful to look at how one can recognise gifted employees.

Definition

There is no generally accepted definition of giftedness. Giftedness can be formally defined using a valid IQ test, but the limit of 2% that is generally used is an arbitrary one⁵. Although some very intelligent people with, for example, dyslexia or an extreme fear of failure do not score well in tests, they do have the same cognitive ability as gifted people who do score well in an IQ test.

Particularly in the Netherlands, a distinction is made between highly intelligent people (those who score in the highest two percentiles of an acknowledged IQ test) and the gifted (those who are highly intelligent and also occupy a successful position in society (Mönks & Span, 1984)). We do not consider this distinction as being very useful, since we regularly see

³ The majority of the publications that have appeared (in the Netherlands) have been written by Corten and/or Nauta.

⁴ An IQ of 130 lies clearly above the average academic level of intelligence. It is striking to note that separate groups have been studied at the lower end of the IQ spectrum: mentally disabled (IQ < 70). Significantly different behaviour is often observed here, and this is common knowledge.

⁵ 2,5 or 5% are also taken. The Mensa foundation takes 2% and we go along with this. We are therefore talking about the top 2% in the aspect of cognitive intelligence.

people shift from one group to the other. We therefore define our target group of gifted individuals as ‘people with a very high cognitive intelligence’.

Behaviours and pitfalls

Jacobsen (1999) identifies three principal ‘umbrella traits’ through which the gifted can be distinguished from the averagely endowed: observing, thinking / combining and responding / acting⁶. These three areas are in line with the physiological basis of high intelligence.

Giftedness can be described in physiological terms as:

- 1 stimuli from the senses are transmitted to the brain quickly and are quickly transferred onward (Deary, 2001);
- 2 the thinking processes occur in parallel combined with imagery;
- 3 large amounts of data are efficiently associated and processed.

Depending on one’s attitude to life, the social strategy adopted, and the skills developed, the ‘collapsed’ form (so-called ‘diving behaviour’), the ‘exaggerated’ form, or the ‘balanced’ form of behaviour can manifest themselves in the three areas specified above.

A gifted individual that is in balance often displays the following characteristics:

- Picks concepts up quickly, thinks and talks quickly.
- Questioning, intrinsically motivated, keen to solve problems.
- Creative, many new ideas, opinionated, averse to authorities.
- Extremely sensitive to all kinds of stimuli.
- Perfectionism.

A gifted individual that is in balance can therefore be an original, creative, energetic, and constructive employee. However, if that gifted individual dives into his or her pitfall, this leads to dysfunctional behaviour. The tell-tale signs of this include under-performing, becoming depressed, being over-sensitive, communication problems both at work and in relationships. We will return to this area in more detail later.

Based on the findings of Jacobsen, Deary, and our own work experience, we argue the following: *In principle, all gifted individuals are capable of making high-quality contributions to innovation in organisations.*

The gifted in the work environment

As an aid to recognising gifted individuals in the work environment, we published the table below (Nauta & Corten, 2002). This list contains many situations that are familiar to the employees in question, as well as their managers and colleagues. After studying this table, many employees discovered for the first time that they might be gifted.

The table lays bare the mismatch between gifted employees and their environment, based on various interpretations of the behaviour of the gifted individual. By making these differences more explicit, and putting names to them, both parties are able to understand each other better.

⁶ Jacobsen refers to these more fundamentally as, respectively: intensity, complexity and motivation.

Table 1

Characteristic statements made by gifted employees and people in their working environment concerning adaptation problems (Nauta & Corten, 2002)

What the working environment notices	What the employee states
1 Many conflicts with management and authorities	I have a great sense of justice
2 Cannot listen to what others say	My ideas are not understood, but I'm usually right
3 Difficult to place motives. What's behind it all?	Apparently I'm a threat to my colleagues
4 Bad timekeeping, for example in meetings	I'm being held back all the time, it all goes so slowly
5 Strongly fluctuating performance, without any clear cause	I have no idea what I want, I find almost everything interesting
6 Not clear where the employee's optimal work position is; concerns him/herself with all kinds of things	I get too little appreciation, people don't see what I'm capable of
7 Lack of perseverance and discipline	I'm easily distracted
8 Is difficult to approach, not social	I dislike social talk
9 Makes all kinds of demands concerning work environment factors	I can't understand how other people can work in that noise

Gifted individuals who are not functioning properly are often unaware of their own intelligence, which results in them interpreting other persons' lack of knowledge as unwillingness. They then become irritated and often start to rush ahead. Additionally, there is a tendency to focus on the content, rather than on issues such as enthusiasm and motivation. They are also often unaware of the effects of their giftedness on their environment. Sometimes, they try to adapt too much, which can result in them becoming dissatisfied generally, and the job profiling is not presented clearly enough to allow them to take on suitable tasks.

The above table makes it clear that if giftedness is not recognised as such (not even by the gifted individual in question), the pitfalls in the functioning of the gifted individual become more dominant, confirming the stereotypical image outlined by professor Vinke. However, it is precisely this creativity and the ability to think 'out of the box' that is required for innovation. And these are exactly the qualities that the gifted individual has to offer, as we will describe in the next section.

3 Creativity and innovation

Creativity is the ability to come up with new things (Van de Braak, 2002), or – in an organisational context – the mental process through which people arrive at new ideas. It is a phenomenon that is essentially not understood (Gaspersz, 2005). *Innovation* is the successful implementation of creative ideas by an organisation (Amabile, 2002, quoted in Miron, Erez & Naveh, 2004).

On the basis of our observations in practice, and on the basis of the established physiology of the gifted, we believe that gifted individuals possess far more creative potential than the averagely endowed individual. In order to make use of and implement these innovatory ideas (innovation), the collaboration between the gifted individuals and their work environment is of essential importance.

The Plant (Belbin)

This belief is in line with the insights that Belbin describes in his books about team role management. He refers to nine team roles in organisations, the Plant being the most creative of these, see table 2 (Belbin, 1998):

Table 2
Characteristics of Belbin's Plant

Strong points	Weak points
<ul style="list-style-type: none"> • very high IQ • dominant • introverted • original ideas • original • powerful imagination • independent opinions • provides new solutions to old problems • major source of innovations and ideas in a team • constant source of inspiration 	<ul style="list-style-type: none"> • lacking a sense of reality • tendency to be impractical • occasional 'head in the clouds' behaviour • does not accept criticism easily • feels easily under-valued • vulnerable • withdraws • not very diplomatic or tactful • communicates ineffectively with others

Although Belbin does not mention the gifted explicitly, we see that many of the descriptions of the Plant are present in the gifted employee. We think that gifted individuals are part of that rare group of people who are perfectly suited to fulfilling the role of the Plant in a team. In addition, they are also able to fulfil other roles in certain situations, but this aspect falls outside the scope of this article.

Factors inhibiting creativity

Van de Braak (2002) states that a very high intelligence can also be an inhibiting factor for creativity. Problems in adapting appeared to be the cause of this. According to Van de Braak, creative minds want to think outside the traditional boundaries. Their attitude is one of cutting through the established rules of the game, and they have the courage to resist conventions. They have a synthetic capacity that enables them to switch between the various realms of thinking and to make all kinds of connections. These connections come about through their ability to see similarities (Van de Braak, 2002). Robinson and Stern (1998) report a similar observation. This is in line with our findings, as outlined in Table 1.

Gifted individuals think and react more quickly, which can lead to communication problems and differences in interpretation within their environment. When confronted with unsafe situations, gifted individuals may withdraw; if they are not understood, they behave irrationally and become difficult to approach. In such situations, their high degree of intelligence becomes more of an inhibiting factor for innovation than an advantage. Gifted individuals therefore require a favourable work environment for their creative powers to be effective.

In our opinion, if gifted individuals are in balance, creativity is one of their most powerful talents. Conversely, room for creativity is a primary need for a gifted individual to be able to have pleasure and get results in his/her work. What are the criteria for being able to make use of this creative potential?

4 Innovation and giftedness

On the basis of our observations in practice, we can list a number of specific contributions that gifted individuals make to the innovative process.

Table 3

Contributions to innovations

Contributions made to innovations by the gifted individual
<ul style="list-style-type: none"> • The gifted individual can easily identify the relationships between goals, missions and assignments. • The gifted individual has the ability to focus intensely on the content. Arguments based on content are key. Habits, traditions and social pressure are quickly spotted. If these seem to be in conflict with the content, they are discarded as being irrelevant. • Thinking 'out of the box' is second nature to them. • Switching between one's own professional area and other disciplines is no problem at all. • The opinion of a formal authority does not weigh any heavier than the opinion of another party. • Information from others is checked against one's own experience or against other information. • The gifted individual has a high degree of commitment and passion. • Existing protocols, structures and approaches are only followed if they appear to be effective and are well-founded. A customized solution is sought for each individual situation, often when this has not been requested. 'Standard problems' are also approached in this way.

So we can see that a critical attitude is often present, as well as the tendency to temporarily ignore the social context, which leads to a strong focus on the problem in terms of the content. These capacities, together with their sharper and broader powers of observation and the ability to think more quickly already mentioned, support our hypothesis that the gifted individual is exactly the type of person that can come up with good ideas.

At the same time, however, these same characteristics can lead to problems in the work environment, and form a barrier to implementing what appear to be excellent ideas. We will return to this aspect later.

Innovation as a natural process

Box 1 presents an example of the natural way in which innovation often takes place in practice:

Box 1

Holiday worker designs programme

Robert: "When I was working in a warehouse during the holidays, I designed an easy-to-use software programme in the evening to make the tasks more clearly defined and to eliminate the boring process of stock-taking. That was 12 years ago. Because the owner could never afford to pay for standard software (it's just a small company), I decided to design something myself. I heard they're still using it today".

Robert wasn't even aware that this was an extraordinary achievement for a 17-year-old schoolboy. The stories about innovations are often about spontaneous actions in informal situations. The achievements do not fit into any official framework. This shows that the innovations take place in a very natural way. Unfortunately, informal achievements are not valued very highly in our structured society. That's why they remain fairly unnoticed or aren't considered to be innovative.

Potential for innovation going unnoticed

We have already stated that giftedness is not always recognised in organisations. An example:

Box 2

A.T., a 'miss' with a mission, 1914-2006 ⁷

Colourful, well-read, remarkable and decisive. These are the character traits that typify ex-librarian Miss Antje Timmenga, usually referred to as A.T. In 1942 she was appointed manager of the Deventer library in the Netherlands at the age of 27, in which capacity she remained until 1978. By then she had contributed so much that she had been knighted and awarded the freedom of the city. For example, in 1964 she was responsible for getting a brand new building constructed. She laid the foundation for a totally new national classification system for books that is still in use today. And in her free time, she worked on fine-tuning it. She was co-founder of a library and documentation academy. She was a lady of the old stamp, but 'in a nice way'. Whatever she did, she did it with passion. There are hundreds of anecdotes that could be told about Miss A.T. Eventually she retired early at her own expense, to make way for the new generation. Her colleagues were astonished, there was no conflict at all. At the time, there were no regulations for such a situation. But it was so typical of her.

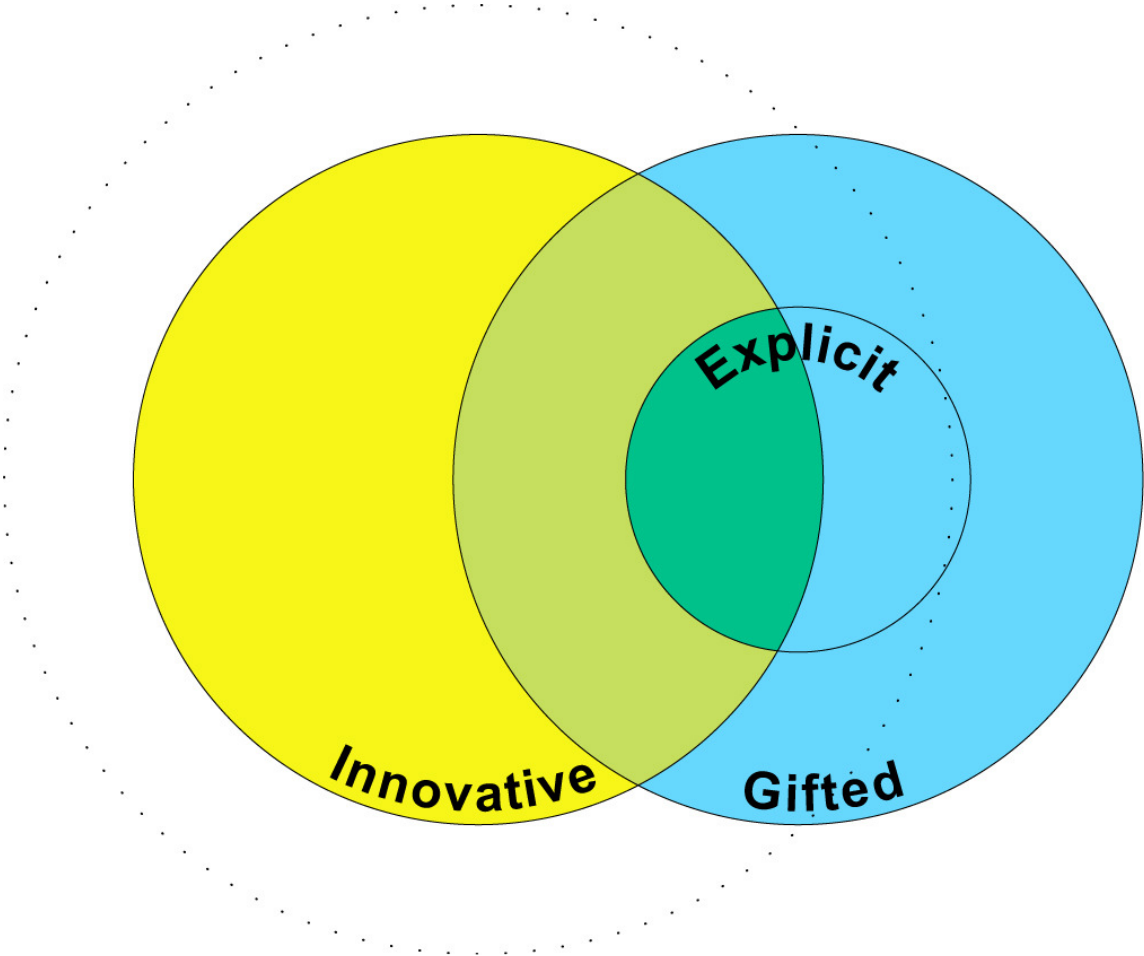
The story about Miss A.T. (Box 2) contains various characteristics that are in line with our observations. Opinionatedness, creativity, taking little notice of fashions (for example, insisting on being referred to as 'Miss' rather than 'Ms'), but still responding to societal values and needs. As a result of the enormous responsibility and freedom that she was given at such a young age, she was also able to be innovative. How many people knew that she (probably) was gifted?

On the basis of our arguments, we believe that the close correlation between gifted talent and innovation can become much more explicit.

⁷ Source: obituary in the Deventer Dagblad, written by Sandra Bouck, 15 April, 2006.

Figure 1 shows our vision on the relation between innovation and giftedness. The circles indicate subsets of the working population. A small part (of unknown size) possesses a powerful creativity focused on problem-solving and innovation. We have indicated these as 'innovative'. Some 2% of the working population – around 300,000 people – are gifted. We argue that there is a big overlap between these two groups: a considerable part of the innovative group is gifted, and vice versa. However, only a small part is explicitly gifted. In terms of the remainder, it is not known whether the individuals are choosing not to disclose this. As a result, the close relation between innovation and giftedness in the HRD sector has gone unnoticed.

Figure 1
Innovation, giftedness and explicitness



Because the innovative process is such a natural process, and because gifted individuals do not make themselves known or they go unnoticed, we believe that a tremendous potential for innovativeness is being lost. This lack of visibility and the negative image that giftedness has acquired urgently demands a stimulatory HRD policy. With such a policy in place, the chances of being innovative throughout the whole organisation can be increased (the dotted line in the figure). It is also up to the gifted individuals themselves to increase their awareness and to raise their profile within organisations.

Many innovative staff feel little need to present themselves as gifted. They are not proud of their intelligence, which is genetically determined and therefore not something they have earned, as is described in Box 3. And why should they be proud? Concert musicians

don't need to talk about their musical talents. That's their natural foundation. What they do talk about is having good strings, the right interpunction, and the optimal playing stance.

Box 3

Intellectual is proud of his craftsmanship

A friend had studied biology and philosophy. He graduated cum laude twice and got his doctorate summa cum laude. He doesn't consider these to be achievements and rarely talks about them. A couple of years ago he became interested in carpentry. He shapes the wood entirely with manual tools, according to centuries-old techniques that he studies intensively. Full of pride, he shows off his creations, and willingly points out which parts of the techniques he hasn't quite mastered yet. Creating tangible results from beautiful, living material gives him tremendous satisfaction.

But even so, gifted individuals would very much like to contribute – and be able to contribute – to innovations. If we ask our gifted clients what they would most like to do, they say, for example: "analyse and study business processes in my own way and come up with suggestions for improving them." Others would very much like to study societal factors and mechanisms, or movements in the customer market and, based on that, develop ideas for new or modified products. "But we don't have the right training and that's why we don't get hired" they add.

This brings us to the next topic: what is a favourable working climate for innovations and what is not? How can an organisation provide a sufficiently safe environment for the gifted individuals who are 'different', for their individuality, which we are convinced can provide a huge contribution to innovations? And: how can the HRD officer contribute?

5 Favourable and unfavourable organisational characteristics for the gifted

Creative and innovative work occurs especially when opportunities are available to work outside the designated framework, rules and procedures. In such an environment, gifted individuals in particular feel in their element, strongly motivated and productive. "I'm attracted to everything that's new". While the average employee prefers to have more structure.

Little research has been done into the relation between giftedness and innovative organisational characteristics. Only Van Geffen (2000) has conducted a small-scale study, the results of which can be seen in Table 4.

Table 4

Favourable and unfavourable organisational characteristics for the gifted

Favourable organisational characteristics	Unfavourable organisational characteristics
<ul style="list-style-type: none"> • flexibility • little hierarchy • few procedures (only if they are useful) • the development and needs of employees are of importance • room for productive conflicts • power and influence can be acquired through expertise, dedication and success (or, at most, through personality, expertise and outstanding performances). 	<ul style="list-style-type: none"> • procedures determine the work • power and influence are predominantly dependent on your position • the development and needs of employees are of little importance • conflicts are avoided

The favourable characteristics are in line with the ‘task culture’ and ‘person culture’, the unfavourable with the ‘role culture’ or ‘power culture’ as described in the culture typology of Harrison (Van Geffen, 2000).

Unfortunately, we are not aware of any further descriptions of favourable organisations. We do know the story of the young people’s union NJN, which seems to have functioned as the ideal meeting place and development corner for gifted individuals for the last 80 years, see Box 4.

Box 4

NJN, breeding ground for scientists and politicians

A remarkable number of well-known and influential scientists and natural scientists, conservationists, artists and politicians were, in their early years, members of the quite small-scale Nederlandse Jeugdbond voor Natuurstudie (NJN) (English: the Dutch Youth Organisation for Nature Studies). The association has its very own atmosphere and vocabulary, and its own values and norms. Individuals who consciously deviate from these are, however, not considered a problem. Their motto is ‘collaborating with everyone’. While many of the members do not act very sociably at home or at school, and have problems in group situations, at the NJN they learn social skills and feel at home. Because the upper age limit is 23, the young members are given a high degree of responsibility and they learn how to deal with criticism. Developing their many talents is strongly encouraged. (Coèsèl, 1997).

When asked, Marga Coèsèl confirmed our impression that there were many gifted individuals among the members of the NJN. This was so self-evident that it was hardly ever discussed. We can learn a lot about safe and stimulating organisations by looking at how the NJN is structured:

- Giving a greater degree of responsibility at a young age than the customary career theories advocate;
- Giving individuals the room to invent the wheel themselves, to take initiatives, make mistakes and learn from them;
- Accept criticism and experience social intercourse in an atmosphere of respect for individuality.

Based on these descriptions and similar experiences from dozens of clients, in the following sections we will describe in more detail what favourable and unfavourable work circumstances for innovative talent are. We would like to emphasise that this is not a comprehensive list.

Favourable work environment for innovative talent

Innovation means diverging from the traditional paths. It isn’t possible for the innovative organisation to make use of a form of standardisation for its coordination. For this reason, Mintzberg (1992) chooses for the ‘adhocracy’. Characteristics of this organisational structure are an extremely organic structure, with little formalised behaviour. Within the adhocracy, the specialists bundle their strengths into multidisciplinary teams that are formed for each separate innovation project. The function- and market focused specialists are brought together through a matrix structure. This is in line with the description of Harrison (1972) of the task-based culture: a flat organisation where the manager coaches and takes care of the conditions, where there is little bureaucracy and where the job just has to get done because the company is (almost) always there for the customer.

To be able to function effectively, many gifted employees want to – and have to – find out for themselves how they are going to complete a task. This means that the manager has to be able to focus on output, delegate tasks to specialists, grant employees the freedom to choose how to approach their work, and facilitate good working conditions. "The manager or supervisor should focus on goals and results rather than the method to be followed (the so-called compass approach)" (Bil & Peters, 2001). This is in line with what Weggeman calls the favourable style of leadership for knowledge workers (Weggeman, 2001). Management, therefore, that is less based on control and gives room for creativity and initiative. This is also in line with the call of Van Praag (1996) for more passionate management, both in politics and in industry.

Gifted individuals feel happy working in such an organisational structure and culture, as Van Geffen found in her study (Table 4). An example (box 5):

Box 5

Job at the bicycle repair shop

A colleague has a son with learning difficulties, and tests have shown that he's gifted. For the past year, he has been working outside school hours at the local bicycle repair shop. He enjoys being there. The owner lets him explore and do everything that comes up. From work in the warehouse, through purchasing and repairs, right up to working at the cash desk. Because he's allowed to do all kinds of new tasks, he doesn't get bored. It's a kind of work placement in a management course, but then pure work experience. He often comes up with suggestions for improvements. The owner is very self-confident and doesn't feel threatened. He puts some of the suggestions into practice, but not others. And he usually explains why. The boy has cheered up enormously. "I'm learning something for the first time ever!", he says with a big smile.

Roughly 30-50%⁸ of the gifted working population is now functioning effectively in Dutch society. If they are in the right place, they think 'out-of-the-box', innovatively and work in a multidisciplinary way. Favourable workspaces for them are the flexible working structures of many kinds of consultancy bureaus, including entrepreneurship (van Geffen, 2000).

We know or recognise many successful gifted individuals in professions such as craftsman, adviser, specialist (also technical specialist), politician, researcher, artist, writer, own boss.

Unfavourable work environment for innovative talent

In a bureaucratic organisational structure with a strongly role-based culture, innovations will be difficult to achieve. Characteristics of such an organisation type include: a lot of routine/repetitive work, many formal procedures, rules and systems, a clear division of tasks. The role of the manager is focused on controlling and checking that the internal regulations and procedures are being complied with. Such a work environment does not bring out the best in the gifted individual.

We estimate that currently about a third⁹ of all gifted individuals are not working in a position appropriate to their abilities. If left unnoticed, they will perhaps just about manage to keep their head above water. Some hop from one job to the other, literally jacks of all trades, masters of none. They waste a lot of energy in trying to adapt to unfavourable circumstances for a lengthy period of time. They are often not aware of the fact that they are gifted, and many consider themselves to be stupid.

⁸ This value is an 'educated guess' on the part of the authors: Quantitative research on this subject is very much needed.

⁹ This value is also an 'educated guess' on the part of the authors.

Box 6

An individual approach

A client was continually having problems with her co-workers at the childcare centre. She finally came to realise that this was being caused by her rather unorthodox way of working. Instead of following the rules and guidelines, she developed her own approach, particularly when dealing with problem children. The children started making progress and the parents were delighted. But the colleagues were scared that the same thing would be expected of them too. They were unable to understand why the approach worked, and they started to work against her. Being treated in this way by her colleagues made her very unhappy. Together with a colleague, she has now started up a bureau for infants with social/educational problems. She's enjoying it very much and is finally making full use of her talents.

Organisations that are less suited for the gifted individual include the social services, job employment agencies, the Immigration and Naturalisation Department of the Ministry of Justice, banks and population registers, traditional family businesses, and small local authorities. Gifted individuals will only be able to use their talents in such environments if they are given specific tasks to fulfil with the appropriate opportunities (for example, internal organisational adviser or innovator, or personal consultant to very difficult or special clients).

If gifted individuals do not find an appropriate place in society, they will fulfil hardly any of their potential. According to estimates, this applies to some 20-40% of the group. Some of these have been in employment but suffered a burnout. Others have no income – through no choice of their own – or are dependent on social benefit, or are living on the subsistence minimum. Some live in total isolation from society, are homeless, addicted, or live in a psychiatric institution¹⁰.

If more positive attention is given to the talents of the gifted at work, and more gifted employees become aware of their giftedness and dare to demonstrate this, we believe that this will lead to more gifted individuals being able to make a useful contribution to society. We will discuss this in more detail later.

6 Giftedness and pitfalls

As Belbin (1998) concludes in his study of team roles at work, for each talent there are corresponding weak points, as well as pitfalls. We now describe a number of these that are related to gifted individuals, based on our own experiences. Some of these become explicit at the individual level, others at the team level.

Communicating with colleagues

The types of behaviour or characteristics of the gifted individual, as listed in Tables 1 and 3, can lead to communication problems. Communication problems can arise through an unsuitable organisational culture (Section. 5). But part of the problem lies in the communications skills of the gifted individuals themselves. It is often said that gifted individuals have a lower EQ than others. Research has shown that this is not the case: gifted individuals have, to put it briefly, 'an average EQ' (Derksen et al., 2002). But having an average EQ is not enough for a gifted individual – who often has an opinionated character – to be able to integrate seamlessly into a group¹¹.

¹⁰ Dalrymple (2001) describes a number of examples of people at the bottom of the social ladder, which we recognise as being gifted. The figure mentioned is an 'educated guess'.

¹¹ And that character is very much accompanied by another life course and other observational powers.

Some gifted individuals do not show sufficient respect for saving another person's face in a particular situation. This acts as a hindrance to communication. (Gerritsen, 2001). The cause is an overly strong focus on content, and too little on contact with the other person. For the same reason, they tend to compete unconsciously at the knowledge level. They are used to having a deviant opinion and to falling outside the group. By sometimes stating their opinions too categorically, they provoke their own exclusion.

Getting on with authority

Gifted individuals do not see or understand the importance of differences in status. From a young age they have learned that not everything that authorities say is true. So, they ignore the phenomenon of status and they themselves fail to take up their rightful position, if that is required, for example, in a project (Stultiens & Stultiens, 2004). Problems with authorities can sometimes be an indication that the organisational culture needs improving. The small group of gifted individuals will often be the first to notice this. If something happens to change this culture, a much bigger group of employees will benefit and the innovation power of the entire organisation will increase.

Lack of discipline

The majority of tasks that are carried out in society are not concerned with innovation nor with maximising quality, but with supplying a constant quality at a rapid rate: in other words, routine work. This demands a degree of discipline. That is one talent that gifted individuals do not possess! They have an extremely broad range of interests and can not carry out routine work for very long periods. The types of behaviour and characteristics mentioned in Tables 1 and 3, as well as our own observations, back this up. After a flying start, the novelty wears off, and they lose their motivation and are quickly distracted, or the quality they deliver is too arbitrary. They are quickly adversely affected by external circumstances and can become sombre and troublesome, even more so if the situation persists for a longer period. This combination of characteristics can create a lot of confusion, both on the work floor and for the gifted individuals themselves. Often they are not even aware of it.

An example: if a gifted individual works for the refuse collection service, he may quickly figure out, for example, that the best way to pick up refuse in a cul-de-sac is different than for the rest of the area. Many gifted individuals enjoy trying to work this out¹². However, this can confuse colleagues and lead to the process stagnating. Generally speaking, it is more practical to keep doing things in the same way.

7 Identifying innovative talent

Much of the talent of gifted individuals goes unnoticed, both by the gifted individual and by organisations not being able to recognise the potential of the gifted.

With regard to the gifted individual, this can be related to negative experiences in the past. In their childhood, many gifted individuals felt that they were different, and noticed to their amazement how their teacher or their classmates would sometimes feel threatened by them. They often do not feel at home in groups. As a result, they have learned to keep a low profile with regard to their ideas and wishes. This can easily lead to 'diving behaviour' and under-performance. Later in their lives, when it comes to making career choices, this can very much stand in the way of them specifying preferences. Because they often do not associate all this with giftedness, that confusing feeling of 'being different' will persist, and they find it difficult to sell themselves on the job market.

¹² 'Functional laziness': it's a challenge to see if something can be done more easily or in a smarter way, even though in the end it isn't completed any quicker.

In our literature study too, it is noticeable how little attention is paid by researchers to gifted adults. In this way, many successful gifted individuals stay ‘in the closet’. As a result, the representation of the gifted is negatively influenced by extreme cases and problems. It’s a vicious circle. Consequently, the value of gifted individuals remains unnoticed in HRD.

Role of the HRD officer

If HRD officers were to know more about giftedness, they would be in a better position to value the profile of gifted employees, and to see where it is possible to match them in the organisation. Using this information, an effective HRD policy can then be developed. Our purpose in writing this article is to contribute to that recognition and acknowledgement. The HRD policy for gifted employees can be set up from two perspectives:

- from the perspective of the need within the organisation for innovation;
- from the perspective of the need of the individual employee for development.

By listening to the needs of gifted individuals, it is also possible for HRD to achieve a lot for the other employees. Gifted individuals can function as the ‘mine canaries’ of the organisation or society¹³. Many of the problems that the gifted encounter apply also to others, but often to a lesser degree.

Despite all the efforts of Nederland Kennisland (an independent Dutch think tank whose mission is to help establish the Netherlands as one of the key regions in the international knowledge economy), scientists complain about the straitjacket into which science has been pushed. There is hardly any room left for fundamental research, since this is unpredictable and can not be applied immediately. This is why excellent researchers are looking to apply and develop their talents elsewhere¹⁴. And experts from abroad feel increasingly less at home in the rigid and hardly challenging culture of Dutch society¹⁵. Really original ideas are by definition out of place in a programme whose framework is pre-determined!

Prof. H. Volberda is the initiator of the Centrum voor Sociale Innovatie (Centre for Social Innovation). Another type of organisation can make it possible to create more room for creativity and its application in practice in the form of innovation, and that urgently needed¹⁶.

HRD from the perspective of a need for innovation

Does your organisation need creativity and innovation to tackle concrete problems? Then here are three options:

- 1 As an HRD officer, you are unaware which of your staff is suitable for these innovative tasks. It may be that after reading this article, you now know how you can identify gifted employees. In that case, you can start to focus attention on their development and to think about where they can best be placed.
- 2 You have already recognised and recruited enough creative staff within your own organisation to tackle these problems. The art is then to create a working environment that will make optimal use of the talents of these gifted individuals. This requires the culture and the style of management within the organisation to be reviewed, as described in Section 5. It is important that new challenges are constantly offered, because gifted individuals will otherwise lose their motivation. Leave the details and implementation for others to take care of, and give the gifted individual the next assignment to work on.

¹³ In the past, coalmine workers took canaries down with them to test the quality of the air (especially for the dangerous fire damp). The canary is extra sensitive for this, and if miners saw a canary fainting, they could take precautionary measures.

¹⁴ Dr. P. Medendorp in NRC Handelsblad, 16 June 2006

¹⁵ Personal statement by dr. E. Huster of the Ministry of Economic Affairs.

¹⁶ Amongst others, in NRC Handelsblad, 25 June 2006.

3 There are not enough creative people present within the organisation (or they are in the wrong place). You need to recruit new staff. According to our hypothesis, gifted individuals can provide a substantial contribution to innovation. Based on our own experience, we list several focus areas in Table 5, which can help you to select gifted individuals that are suited to work within your organisation.

Table 5
Checklist for innovation potential in job applicants

Questions for researching the innovation potential of job applicants
<ul style="list-style-type: none"> • Are there examples of innovative ideas in their previous functions or hobbies? • What do they need for them to be able to function effectively? • Are they inquisitive, and if so, what about? • Do they show respect for the deeper values within the organisation? • Can they give examples of collaboration? • Can they communicate adequately? • Can they give their full support to the project? • Can they read up on the subject, even though their work experience is in another field? • Can they specify similarities with previous innovative ideas and the job offered?

Notice that the questions are largely related to the future. In our experience, an individual's previous training and career path are less important. It is important, however, that the candidates are able to make the connections between their own previous experiences and the job being offered. And also that the candidates can show adequate commitment to the organisation.

In contrast to more routine functions, neither a typical career path nor an accepted training path is a good criterion. Special wishes (What do you need for you to be able to function effectively?) need to be assessed carefully by means of a cost-benefit analysis. Whether the request is normal for the organisation is not a good criterion for selecting innovative personnel. Bear in mind that many gifted adults will have special wishes, but that they will be prepared to compromise in other areas. Perhaps they need their own office in order to be creative, but not a company car.

HRD from the perspective of the individual gifted employee

The gifted employee also has the need to develop his or her talents. Do you recognise giftedness in your staff in the Tables 1 through 3? If that is the case, is the organisational culture safe enough for them to allow their giftedness to be seen? Do these employees perhaps have certain practical wishes? Taking into account the preconceptions that exist about giftedness, many employees prefer to keep their mouths shut, and certainly if they have previously met with unpleasant experiences. Perhaps there are some employees who are functioning well and whose giftedness is known or suspected. In that case, try to find out how you can create a more friendly and stimulating work environment for innovative employees, by means of an orientation interview, for example. In many cases, by recognising giftedness in employees, this can help remove any barriers, and stimulate them in their personal growth, as well as encourage them to make full use of their capacities.

The role of the gifted individual

In what way can the gifted themselves contribute to making their innovative talents more explicit? In our practice, we see various core learning points constantly recurring, which can

help a gifted individual who has become stuck in an undesirable situation to function better. The following points apply to almost every gifted individual (Table 6).

Table 6

What are the core learning points for the gifted individual?

Personal learning points
<ul style="list-style-type: none"> • Feelings are facts. Consider the feelings of others as hard facts. • Subjectivity is the essence of society. The majority of decisions are made subjectively, even though they are sometimes packaged differently. How you present yourself, for example through your career profile, is also a mix of subjective and personal factors. Don't be ashamed of it. • Be on the look-out for window-dressing. Companies sometimes present functions as being better than they really are. Research this thoroughly to avoid any disappointments. • Learn to accept the time aspect of organisational processes. Just as it takes longer for 50 people to get off a bus than for two, it can also take longer before a decision is taken. • Try to learn how to keep your listener on your wavelength. • Don't be afraid of expressing a non-standard opinion, and don't automatically anticipate a rejection that hasn't yet taken place. • As a gifted individual, you do think more quickly and at different levels, and your powers of observation are sharper. Be patient with others. • At the same time, you are just as human and fallible as others. Be aware of that. • It's OK to make mistakes. Admit to them when they occur. • It's OK to be angry, but do it at the place where you <i>became</i> angry and not as an undertone in general communication. • Show respect for routine work as the cement that holds society together. As a gifted individual, you are not equipped for it but you do benefit from it.

Many of our clients have been living in total confusion for years. Confusion caused by incomprehension about their social environment, an environment that they are constantly in conflict with, unintentionally. In reading our articles about giftedness at work, they felt acknowledged and understood. They saw an explanation, and also a possible pathway to personal development. A majority of them have dared to show more of their true selves, and have actively looked for a suitable workplace. They have often created this workplace themselves. Increased acknowledgement from the HRD officer of giftedness, and an eye for the corresponding talents and pitfalls, can contribute to greater innovation and more contented gifted employees.

8 Conclusions and recommendations

The conceptions about giftedness have not been very positive up till now. However, recently there have been signs of change. The national IQ test is broadcast on Dutch TV, as well as the series 'Beauty and the Nerd', in which giftedness is portrayed in a reasonably differentiated way. The term 'nerd' is beginning to become a nickname for a good IT employee¹⁷.

¹⁷ The slogan used by Internet provider XS4ALL: Our nerds may be less charming and client-friendly, but your internet problem will be sorted!

The subject we are writing about is a new field of study. We could find little or no research in this area. Even in the US, where giftedness is ranked more highly than in Europe, the relation between giftedness and innovation seems hardly worth considering. Linda Silverman of the Gifted Development Institute¹⁸ considered it striking how much material we have already published in 'normal' magazines. She and her colleagues have published many more, but virtually all of them in their own journals for the gifted. That's why we consider our article to be an exploratory one. Our observations might well lead to hypotheses and to the forming of theories, but before we get that far, it's going to need much more research, and that is a matter of urgency.

In this article, we have described what giftedness is and how gifted individuals can be recognised. They possess great potential in terms of creativity, and therefore also in terms of innovation. But far too often, they go unnoticed, and their talents are therefore lost. We have offered various explanations at different levels for this lack of visibility. We have indicated the favourable and unfavourable working environments for gifted employees. Factors that play a role here are organisational culture, style of leadership, but also working conditions and the content of the work itself. Gifted individuals also need to pay attention to a number of learning points so that they can function more effectively.

For managers and HRD officers, it is important to learn how to make a distinction between different kinds of 'deviant' behaviour of gifted individuals. A part of that behaviour is perhaps troublesome, but at the same time it is necessary for them to be able to fulfil the unique innovatory role they are looking for. These kinds of issues demand that organisations change. But other deviant behaviour indicates a pitfall and this is not acceptable. Here it is the gifted employee that needs to adapt.

Developing a policy for the highly intelligent can lead to the acknowledgement of giftedness and to the creation of a more favourable match between the gifted individual and the work environment. Gifted individuals can then develop into essential seeds of innovation in the heart of the organisation¹⁹. These employees can contribute both to actual knowledge innovation and to social innovation. Because our recommendations will serve to stimulate the creativity of other employees, this will benefit the whole of the organisation. The entire company will therefore be participating in The Learning Society and, as a result, in sustainable development. In this article, we have proposed a new, concrete approach to work on this society: via the small but very specific subgroup of gifted employees.

We propose setting up carefully structured pilots by creating room for intelligent talent in different organisations. We also advocate singling out the gifted as a separate group in various quantitative HRD studies. Different general experiences from this article can then be specified and quantified in more detail.

¹⁸ During the workshop: I'm not gifted, I'm just Busy. About unrecognized giftedness in Women, Driebergen, 22 November 2005; See also www.gifteddevelopment.com)

¹⁹ Belbin also refers to this as a typical character trait of the Plant.

APPENDIX

Material and Method

This article is based on a large amount of biographical material from gifted employees. The best documented and most comprehensive material is that of the clients of the specialised career coaching bureau 'Werk en Waarde': some hundred life stories, around 500 short success stories, and about 200 visualisations for the future, supplemented by the information gained from around a thousand in-depth coaching interviews.

Because we realise that our clients are not typical for the whole target group of the gifted, we have searched intensively for literature and web sites, and collected as much material as possible from other highly gifted individuals, mainly in the following ways:

- Five years experience in an HRD function in an environmental advice bureau where many gifted individuals were employed.
- More than 20 years experience as trainer, coach and training consultant for government and commercial companies.
- Experience in holding workshops ('Loopbaanavontuur' with a total of around 50 participants²⁰; 'learning to learn' and 'stress from work' with around 100 participants).
- Seven years experience as members of Mensa (two authors); discussions in the newsletter and during meetings.
- Dozens of responses, e-mail discussions and requests for help as a result of our previously published articles.
- Biographies and autobiographies in book form.

We have verified our impressions in discussions with professionals:

- Intervision and discussions with colleagues, specialised in the same subject.
- Dozens of discussions with managers of gifted individuals.
- Reactions to readings and network discussions with occupational health physicians, HRD officers and career counsellors.

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²⁰ Developed by Frans Corten in conjunction with Edith Triebelinig; www.loopbaanavontuur.nl. In this workshop, gifted individuals learn to make choices based on their feelings.

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Frans studied biology and philosophy. He is working in HRD since 1995 and has coached dozens of gifted employees in various organizations. In 2001 he founded his careers advice bureau 'Werk en Waarde', specialized in gifted adults. He has published several articles on this subject as well as designing a special workshop for the gifted (Loopbaanavontuur), helping them to recognize their inspiration and passion.

www.werkenwaarde.nl

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Siewke Ronner, Meriones Advies

Siewke, health psychologist and organisation expert, supports employees in developing their talents within organisations. She has a sharp eye for the unique skills as well as for the vulnerable sites of individuals, in particular of gifted adults. Her personal mission is to develop professionalism and cooperation within organisations. She applies e.g. Belbins teamroles model and investigates the conditions under which the gifted employee is able to play the role of innovator (the Plant in Belbins model) within the company.

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