Guided by scent

A fresh look at the use of odour in healthcare and education

Marian Waanders-Westman
Smell!
My eyes can see, but I do not understand
My ears can hear, but I do not comprehend
The world is new and unknown to me
   Let me feel and smell life
   So I can grasp my existence

Marian
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Imagine that you have poor vision and hearing.
How do you perceive the world around you? How do you know what’s about to happen? How can you participate? For many people with deaf-blindness, this is their daily reality.

Imagine that what you see and hear has no meaning for you at all, even if you have eyes and ears that work well.
You are seeing-blind and hearing-deaf, as it were. This is the case for many people with a severe intellectual impairment. This can also play a role in psychogeriatrics, for example in people with advanced dementia.

Imagine that things happen to you every day, time and time again, but that you can’t get to grips with them yourself. How would you feel? How much quality of life would you experience? What could the deliberate and targeted application of odours add to your life, possibly combined with objects and touch? In my work as a speech therapist and trainer within the healthcare sector, I have often wondered about this. I’ve also gained relevant practical experience while working for day centres for adults and centres for children with developmental delays.

I see great initiatives being taken in the fields of smell and touch. However, I also notice that people often do not think about the deliberate application of odour.
The sense of smell is a neglected one, especially when it comes to supporting people.
There is still much to be gained here, because the deliberate and targeted application of odour provides greater quality of life.

Out of this arose the idea for a practical book aimed at professionals in the healthcare sector and education, dealing with the purposeful application of odour in the support of vulnerable people.

In my current work as a speech therapist at Bartiméus, a service organisation in the Netherlands for people with a visual impairment, I want to further investigate and develop this application of odour.

Personally, I am more of a talker than a writer. I’m therefore very grateful to all of the people who have supported and inspired me in creating this book.

Zutphen, June 2018
Marian Waanders-Westman
1 SMELL, A REMARKABLE SENSE

THE PURPOSE OF THE SENSES
Each sense has its own purpose and works in a unique way. In vision, for example, orientation and being able to recognise what you see are very important. The memory for everything that you see is mainly focused on determining what something is. After all, if you know what something is, you can assess whether it is dangerous and how you should respond. This is very important when viewed from an evolutionary perspective.

AND WHAT ABOUT SMELL?
Smell is principally the guardian of our breathing and food intake. Ninety percent of our sense of taste is governed by smell.

Olfactory memory is not focused on recognising odours and flavours. Rather, it has to respond correctly to unknown and unexpected odours and flavours encountered in a given situation.
An odour may be stronger than usual, completely new, or familiar but not normally expected in that situation. The odour can also be extremely delicious or utterly foul. If an odour does match the situation, it gives us a pleasant feeling of safety.
EXAMPLES
While walking in your garden at night, you are surprised by the lovely smell of honeysuckle. You bury your nose in the blossoms for an extra sniff.

You are unpleasantly surprised by the smell coming from the drain while you’re taking a shower.

When you walk into a supermarket at lunchtime, the smell of freshly baked rolls makes you feel incredibly hungry. Your mouth even starts watering.

And when your partner splashes on a little too much aftershave one morning, you notice it immediately.

THE UNCONSCIOUS EFFECT OF SMELL AND ODOR
After a little while, you no longer perceive the odour that you smell in a particular situation. This is called adaptation, and it happens with all familiar smells. You essentially become accustomed to that smell.

However, if you come home from a three-week holiday, you are very conscious of the smell of your own house. While you were away, you were no longer mindful of that familiar smell.

Without adaptation, our noses would rapidly become overwhelmed by odours. An important odour, such as the smell of burning, would then no longer stand out. Naturally, that’s both inconvenient and potentially dangerous. Furthermore, it’s a good thing that strongly concentrated odours are less susceptible to adaptation. This means that your nose does not become accustomed to them easily. Nature has also arranged it that some odours are not at all susceptible to adaptation, such as the smell of rotting food.

ODOURS AFFECT BEHAVIOUR
Odours often have an unconscious effect on our behaviour. Perhaps the unconscious nature of this is precisely why smell is so powerful.

EXAMPLE
During an experiment, a number of test subjects were given a crumbly biscuit to enjoy eating. On one occasion, there was a bucket of cleaning detergent present in the room, although not visible to the test subject. On the other occasion, there was no bucket of detergent present. It turned out that when the bucket of detergent was present, test subjects were more likely to sweep up the crumbs of the biscuit.
If you make a ‘thing’ of smell, the effect dissipates quickly. We can easily name many things that we hear or see. It’s much more difficult to do this with things that we smell, and sometimes even impossible. Our language simply falls short. Still, we often try to describe odours anyway. First we say whether we like the smell or think it’s repellent. Then we try to specify what it smells like, for example, ‘mandarins’. Finally, we compare the odour with other sensory experiences and say for example that it smells ‘sour’.

\[
\text{I can smell hot chocolate!}
\]

\[
\text{Keep going! The competitors are just trying to distract us!}
\]

\[\text{Ic}
\]

\[\text{e Ed}
\]

\[\text{CONNECTION BETWEEN SMELL AND MEMORY}
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Smell and memory are closely intertwined. Many memories are strongly linked to associations that are evoked by scent. A memory prompted by scent is often a complete memory. For example, the smell of freshly mown grass can remind you of the wonderful summer holiday you spent at a lively campsite. You instantly remember who was there with you, and all the things you did together. Our olfactory organ is directly connected to the limbic system, a part of the brain housing both our memory and emotions.
**EXAMPLE**
The following is one of my own very strong scent memories. My late grandmother had low blood pressure and late onset diabetes in the final years of her life. She lived with our family for a number of years. I was still a child and in primary school. I can still see her sitting in her armchair in the middle of our living room. She often took a nap in her chair during the afternoon. Sometimes she didn’t wake up of her own accord after her nap. Holding a bottle of 4711 eau de cologne under my grandmother’s nose worked wonders, reviving her and making her responsive once again.

If I smell 4711 eau de cologne now, I think of my sleeping grandma and feel the same sense of relief that I had as a child.

**CONNECTION BETWEEN SMELL AND EMOTION**
Smell and emotion are also closely associated. An odour can give you a pleasant feeling, such as when you’re out for a walk in a deliciously scented autumn forest. Odours can sometimes also be irritating, like when you’re on a crowded bus or metro train full of soaking wet people. If you work in an office surrounded by a strong photocopier smell, you feel less comfortable. The smell of cigarette smoke on a restaurant terrace can significantly dampen your appetite and mood. You will undoubtedly have had many similar experiences yourself.

**RESEARCH?**
Little or no research has been done on the sense of smell in people with a severe intellectual impairment, deaf-blindness or dementia. This is striking, since the healthcare and education sectors pay a great deal of attention to other senses such as hearing and sight. If we want to know whether someone with complex and intense support needs is able to smell something, they are generally unable to tell us that. Research must therefore focus primarily on observing their behaviour when they are offered different odours. It should certainly be possible to devise a good research project to explore this. I hope that this book will provide the impetus to get started.

**THE TARGET GROUP FOR THIS BOOK**
This book is about working with people with severe intellectual impairment, deaf-blindness and/or dementia. It provides healthcare and education professionals with ideas and tools for supporting these people in their daily lives through the targeted use of odour.
STRUCTURE OF THE BOOK
First of all, I will describe the target group of this book in greater detail. Then I will explain how our nose and sense of smell work. After that there will be a chapter about communication levels and odour, and I’ll take an extensive look at the use of odour in healthcare and education. I will also provide information on essential oils and how you can work mindfully and purposefully with odour. There is an overview of tools you can use for the application of scent, and I include a number of facts about odour. Finally, the four appendices at the end of the book contain useful information and formats for practice.
I will present the information in this book as clearly as possible, providing descriptions of practical situations. I’ve also provided room for you to write your own notes and ideas.

THE AUTHOR’S WISH
I hope that when you read this book you will become enthusiastic about working mindfully and purposefully with odour. As a professional, you may well be able to contribute to improving the quality of life of someone with a severe intellectual impairment, deaf-blindness and/or dementia.
If in ten years’ time it becomes commonplace to work purposefully with scent in healthcare and education, then I will have achieved what I’ve set out to do.
This book is for those who provide professional or private support to people with severe intellectual impairment, deaf-blindness and/or dementia. These include home and work support staff, carers, therapists, parents, family members and acquaintances. Who are the people with severe intellectual impairment, deaf-blindness and/or dementia?

2.1 PEOPLE WITH A SEVERE INTELLECTUAL IMPAIRMENT

People with a severe intellectual impairment have an Intelligence Quotient (IQ) lower than 25. This is not easily measurable with an intelligence test. Actually, an IQ number doesn’t say much, and a person is fortunately much more than just their IQ. They are also the sum of their physical development, social and emotional development, and their life history. People with a severe intellectual impairment often also exhibit motor and sensory problems. They also regularly encounter health problems, such as epilepsy, problems with bowel function and nutritional problems.

Developmental age is an indicator that is generally used for this group of people. People with a severe intellectual impairment generally have a developmental age of less than 24 months.

These people often have few compensation options; they cannot compensate for their impairment in one area with a talent in another. This means that they are almost entirely dependent on their social environment in all areas of their life, including all of their daily activities as well as safety, health, financial matters, social contacts and the like.

Furthermore, they have severe communication limitations. They can barely speak themselves, if at all, and they have very limited to no comprehension of our spoken language.
2.2 PEOPLE WITH A FORM OF DEAF-BLINDNESS

Deaf-blindness is a combination of deafness/partial hearing loss and blindness/partial sightedness.

Deaf-blindness inhibits communication, the acquiring of information and mobility. Without modifications, aids and/or support from others, deaf-blind people cannot easily participate in daily and social life.

Figures for the Netherlands:
There are between 33,000 and 38,000 people who are deaf-blind in the Netherlands. Most of these have become so after the age of 55. More than 3,500 people with deaf-blindness also have an intellectual impairment.

Deaf-blindness is a hearing loss of 35 decibels or more, a loss of visual acuity of 0.30 or less and/or a field of view of 30 degrees or less.

Naturally, there is an enormous difference between having congenital or early acquired deaf-blindness, and later onset deaf-blindness. Some people become deaf-blind overnight, while others experience a gradual deterioration in their hearing and/or vision. Some may have already acquired speech and language, while others have not yet done so.

Our society is strongly focused on and oriented around sight and hearing for making contact with others. Mutual communication is for the most part via spoken language and visual information. If you cannot come into contact with your social environment through one of your senses, you are more or less ‘alone in the world’ and rapidly become introverted. Making contact with deaf-blind people must mainly be done through touch. This can only be done in a ‘one-on-one’ situation, at very close quarters. Depending on someone’s capacities and what they have already learned in life, this type of touch can take place concretely through objects, or more abstractly with tactile icons in relief.

You can also use a real language, such as with fingerspelling in the hand, Braille, or tactile signing.

Communication is a question and answer game in which you are focused on each other. This does not come naturally; everyone has to learn how to do this. People with congenital or early acquired deaf-blindness will not learn this of their own accord, but will require a specific approach. They don’t know that they can ask something, they have no words or visual images in their minds with which they can think of something. If they are not introverted, they may have built up a different form of memory, such as for touch and smell. Odours can include the smell associated with drinking coffee or the scent of a place or person. They have often also built up a memory for actions, such as the concept that receiving a napkin means ‘eating’ or ‘drinking’.
Every person strives to achieve a balance between rest and action. However, if there are too few external stimuli or you experience your environment as unsafe or even threatening, then you often choose to call up your own world of stimuli and shut yourself off from the outside world. That is why many deaf-blind children react defensively if their hands are touched.

The deliberate use of odour in supporting people with a form of deaf-blindness is strongly dependent on the capabilities of the individual concerned. Odour may have little added value for one person, and for another it may be almost their only means of access, often in combination with touch. A person’s degree of deaf-blindness, the age at which this occurred, their cognitive capabilities, the opportunities that they’ve had, their social environment and their personality all play a role.

2.3 PEOPLE IN AN ADVANCED STAGE OF DEMENTIA

Dementia is a collective name for more than fifty diseases, such as Alzheimer’s disease and vascular dementia. All of these diseases lead to a gradual decline in mental functioning.

Alzheimer’s disease is the most well known and also the most common, making up 70% of the dementia cases. It often starts with memory disorders. The longer the disease progresses, the more someone loses their skills. Eventually, they become completely dependent on other people. Researchers believe that the disease is caused by an accumulation of proteins in the nerve cells of the brain. These are also known as plaques.

In the following description, I have used Alzheimer’s disease as a starting point. With regard to the advanced stages of dementia and the associated symptoms, however, there is a great deal of overlap with other forms of dementia.

In the advanced stages of Alzheimer’s disease, someone may need more and more help from others and ultimately becomes completely dependent on others. The associated memory loss means that they are no longer able to recognise objects, people or their surroundings. They may sometimes still show flashes of recognition, however.

People with Alzheimer’s disease also experience a physical decline. They walk unsteadily with a shuffling gait and eventually become bedridden. There is often also a gradual loss of speech. Some people keep repeating the same few words, but it is difficult to understand what they really mean by this. They often also become restless and seem to be looking for something or someone. They can suddenly become angry during daily activities such as eating, bathing and going to the toilet. This is usually because people with dementia no longer understand what is being asked of them; the intentions of others are no longer clear to them.
People in an advanced stage of dementia can certainly benefit from the targeted use of odour in daily support. It can be useful to start providing support with odour at an earlier stage of dementia. Patients may be able to learn more easily at this point, and both they and their social circle will already be accustomed to the use of odour when it really becomes necessary. This is easier to achieve for people with both an intellectual disability and dementia, than for people with dementia alone. The latter group often wants to keep doing everything independently and ‘normally’ for as long as possible, without extra aids and adjustments. Deliberate and targeted working with odour is then often not an option and is more difficult to discuss.

People with severe intellectual impairment, deaf-blindness and/or advanced dementia have something in common. They become less able, or completely unable to recognise the world around them through their hearing or vision. Other sensory channels such as smell, touch and taste can somewhat compensate for this lack of recognition. In many cases, language and words lose their meaning. Those affected cannot always easily recognise the intentions of others. The function of objects is increasingly lost, and situations and places also become less easily recognised. This may result in a feeling of insecurity and stress.

People become strongly dependent on others with respect to everything that happens during their day. They also live and experience things mainly in the ‘here and now’. If the social environment isn’t properly attuned to the person’s capabilities, it may feel to them as if everything is just ‘happening to them’.
In people with the Alzheimer's type of dementia, the sense of smell is generally more reduced than in their peers without dementia. The first cranial nerve, the olfactory nerve, is often the first affected in this form of dementia. Researcher J. Stamps investigated this with the help of the peanut butter test. She gathered a group of test subjects, some of whom had Alzheimer's disease, and told them to close their eyes and one nostril. Then she held a ruler next to the open nostril and also held a pot containing 14 g of peanut butter close to the nostril. She gradually raised the pot along the ruler by one centimetre at a time and asked the test subjects to indicate when they smelt something. Stamps repeated the experiment with the other nostril after a ninety-second break.

The investigation showed a large difference in the point at which Alzheimer's patients detected the smell through one nostril or the other. Their left nostril was much worse at detecting the odour, only recognising the odour when the pot was ten centimetres closer than was necessary with the right nostril. People with other forms of dementia did not exhibit this effect. They either smelt the odour just as well with their left nostril as with their right, or their right nostril was actually worse at detecting the odour.

Source: Scientias Magazine, October 2013
3 HOW DO WE SMELL?

For the deliberate use of odour in supporting people, we need to know how our nose and sense of smell work. Smell is the most primitive of our senses. Actually, smell is nothing more than a chemical reaction to our environment. If odours were visible, the air around us would literally be full of vapours.

3.1 THE NOSE
There is a layer of cells located high in the nasal cavity on both sides of the nasal septum. We call this the olfactory mucosa or olfactory epithelium. Under magnification, this epithelium has the appearance of a coral reef. It’s about the size of a postage stamp and contains millions of olfactory cells. These olfactory cells have a number of very thin projections, called the cilia, oriented towards the nasal cavity. There are millions of olfactory receptors in the walls of these cilia. An olfactory receptor is a protein capable of binding one or more odour molecules. A scent consists of a mixture of all kinds of odour molecules. These molecules dissolve in mucus and stick to the receptors. Seven to eight of these odour molecules can stimulate one olfactory cell, so that a direct signal goes to the brain. No other sense works as directly as this. However, for true recognition of an odour to occur, at least 40 olfactory cells must be stimulated. But how can these receptors differentiate between various odour molecules?

There are two common theories:
1. The lock and key theory
2. The internal vibrational frequency theory (Turin, L.)

1 Odour is determined by the shape of the odour molecule. Different shapes are recognised as different odours. The odour receptor and the odour molecule must fit together like a key in a lock. This means that an odour molecule will not fit into every odour receptor.

2 Each odour molecule has its own vibration frequency, on the basis of which we distinguish odours. Research has shown that if two identically shaped odour molecules with different vibrational frequencies are offered, someone will experience these as two different odours.
Theory 2 seems the most likely to be correct, but has not yet been conclusively proven. Our sense of smell therefore remains something of a mystery. Research into the functioning of the olfactory organ commenced much later than research into other functions such as hearing and vision.

Humans can distinguish between a large number of odours. The sensitivity of smell perception varies from person to person and can certainly also be trained. In addition to the odour receptors, the free endings of three cranial nerves are also involved. The most important of these is the trigeminal nerve, which ensures that we can feel stimulation within the nose. For instance, think about how it feels to drink cola.

The olfactory cells themselves divide and grow. Every three to four weeks, you effectively have a new nose. This is unusual for a nerve cell, and we have probably developed in this way because our nose is in constant contact with the harmful outside air, and the nose is an important and primitive sense.

We have two nostrils so that we can better determine the location of an odour source, just as we can better determine the direction of a sound with our two ears or see depth with our two eyes.

### 3.2 SMELLING WITH YOUR BRAIN?

You only really smell things in your brain, where the sensory stimuli gain meaning. The area of the brain that plays an important role in smell is the olfactory bulb. This is where initial processing takes place. The olfactory bulb is located on the underside of the brain, just above the ethmoid (sieve) bone which separates the nasal cavity from the brain. The distance between the olfactory epithelium and the bulb is only half a centimetre. This is a very old area of the brain in terms of human evolution. The olfactory bulb is also known as the olfactory brain.

A bulbus can be seen as a huge telephone exchange where the axons of millions of olfactory cells come together. Nerve fibres run from the olfactory bulb to more central areas in the brain. One of these areas is the limbic system, the brain’s memory bank. This is where our emotions and memories are located. Here, odours are not only observed but actually experienced. This experience is very personal. No one smells things in quite the same way with their nose as another person. If you have smelled an odour once, you will never forget it.
3.3 SMELL AND MEMORY

Smell and memory are very strongly linked to each other through the brain’s limbic system.

The first six to seven years of your life are the most important in building up a memory for smells. This mainly concerns episodic memory, which is the memory for events that have taken place in the past. The episodic memory is spatial and temporal and is the memory of a particular moment and its location.

In this way, smells can be strongly linked to images from the past, or to situations that you experienced as a child. It is therefore strongly influenced by your own life history.
3.4 SMELL AND EMOTION
It is well known that familiar smells are very important for young children to feel safe and secure. Young children can benefit from this if they come into a strange environment. A soft toy or other object that carries its own familiar scent helps the child to feel more at home, more rapidly. If the soft toy is washed, this can be a very unpleasant experience for the young child. The recognition and the effect of the toy's own familiar scent disappears. You can also make effective use of an object's own familiar scent with people who are deaf-blind, have dementia or have a severe intellectual impairment.
The way you personally appreciate an odour, whether it’s pleasant or unpleasant, is largely determined by your previous experiences. A fragrance that is pleasant to you is often connected to an experience that was pleasant for you. An unpleasant odour is often linked to a past unpleasant event. For example, the smell of a new car might be wonderful to you because it reminds you of car rides during your childhood in which you got to sit next to your father in the passenger seat. How proud and grown-up you felt then! Alternatively, this odour might be extremely unpleasant to you because you always got car sick as a child and had to throw up. How small and miserable you felt then! Therefore, it’s certainly something to take into account if you start working in a deliberate way on the application of odours with someone with a severe intellectual impairment, deaf-blindness or dementia. If the person with whom you are working displays noticeable reactions, you can follow up by asking relatives about them. A brother, sister or parent may well be able to tell you about instances in the person’s youth in which he or she strongly enjoyed a particular odour, or indeed, displayed a strong aversion to it. This gives you necessary and very useful information that will enable you to support the person through the use of odour. Smell, memory and emotion can therefore be very strongly connected to each other through the brain’s limbic system.

**EXAMPLE**

A man with a very severe intellectual impairment was admitted to hospital and underwent nasty and painful examinations while there. If this man now smells ether somewhere, he faints. For him, the scent of ether is strongly linked to an intense emotion acquired through his experience in hospital.
4 COMMUNICATION AND COMMUNICATION LEVELS

Communication enables people to make contact, enter into relationships, express their needs and wishes, and share their feelings. Without communication, we become isolated. Communication is at the very foundation of being human.

Mostly, we communicate consciously by talking. However, there are many other means of communication, such as photographs, gestures, pictographs, objects, scent, facial expression and body language. You can apply all of these forms of communication at different levels. In general, there are three distinct levels of communication, namely the situational level, signal level and symbolic level (Totale Communicatie, 2005). It’s useful to know something about this, because you have to apply odour as a form of communication at the right level.

4.1 SITUATIONAL LEVEL

Someone who understands communication at the situational level observes what happens in the here and now. They receive information through sensory stimuli (seeing, feeling, hearing, smelling, tasting) in the situation in which they are physically present. They recognise what is happening at the moment that the situation is completely under way and all elements are present. All of the elements in the situation help with recognition of what is happening. The whole situation communicates, as it were.

EXAMPLES

There is a carton of coffee milk and a sugar bowl on the table, the smell of freshly brewed coffee is in the air, the rattling of coffee cups is audible, and the biscuit tin is on the table. The coffee is poured and handed out. Someone receives a cup of coffee and starts to drink it. All of this means that they can recognise what is happening in this situation.

If they were only able to see the tray with coffee cups being made ready in the kitchen, they would not understand that coffee was going to be drunk shortly. To be able to understand this, they would really need to have the sensory experience of having and drinking the coffee.

If you give someone a mug of warm porridge and let them mindfully feel and smell it, and then drink and taste it, then you, as a professional, have applied odour at the situational level. All of the working senses participate in the situation in order to make it recognisable.
Those who communicate at the situational level usually live in a limited world. Their model of the world contains few concepts and connections. They undergo situations and possibly observe them. Usually, activities or events simply happen to them. Those who understand communication at a situational level can, through repetition, gradually start to recognise which familiar situations occur. The situation must always proceed in the same way. This enables them to recognise what is going to happen even if the situation has not completely started yet, through the presence of certain elements of the situation. For example, they may recognise a utensil associated with the situation in the situation, even though it is not yet touching their body.

People communicate personally and actively at this level about things that involve them (for example, how they feel) and are focused on direct gratification. They cannot wait, but want it now! In the beginning, this active communication is mainly unconscious and manifests itself in body language such as muscle tension, movements, their position in a space, and sounds. They are also not yet really able to take others into account.

Later in development, people become more aware that a communicative action on their part can lead to a reaction from their social environment. They begin to observe their environment more consciously. They can actively interact with something that is associated with the situation, but that is not fixed. For example, this might be with a utensil one time, or another time with a sound, or by sitting on the spot. So there is no fixed communication code yet. Communication mainly occurs through and in the situation.

**EXAMPLE**

Someone sees and hears the thermos and the biscuit tin being put on the table by someone else. They now expect coffee to come, and already go to sit in their own chair at the table, where they always drink their coffee. They make smacking sounds with their lips and flap their arms. The coffee milk, sugar and cups are also set out ready just then.

There’s a sugar bowl on the table
4.2 SIGNAL LEVEL
People who understand communication at the start of the signal level have already laid down a few more concepts and connections in their model of the world. They can link daily occurrences with each other, such as first brushing teeth and then going to bed. The conditions for communication, such as action-reaction and the acquisition of conscious experiences, have already been developed.
These people also have object permanence; that is, they know that something or someone is still there, even if they cannot perceive this. This occurs at around nine months in the normal development of a young child. If a ball rolls under the sofa, a child will go looking for it. Throwing stuff onto the floor from a chair and then reaching for it is also a fun activity. Peekaboo games are popular at this age.

When people communicate at the start of the signal level, they do this with an individual fixed code. They may point to a particular cup to indicate that they want something to drink. This code stands for one fixed situation and context, such as having a drink at home. They cannot yet translate this to other similar situations and contexts, such as drinking at school or during daytime activities. The social environment must know about a person and their code in order to understand them properly. Someone at this stage of development can now communicate in a very basic way about a situation.

EXAMPLES
Snoezelen (controlled multisensory environment) is on the daily programme at the activity centre. A participant is prepared for this by being given a soft, lavender-scented cloth to touch and smell. They then stand up on their own and move towards the door of the group area. They have recognised the scent and linked it to 'snoezelen'. They have learned this through repetition. They also really enjoy the snoezelen activity.

If you’ve allowed someone in the group room to mindfully touch and smell their swimming costume, and if they then go to the nearby swimming pool, then you have used odour at the signal level. It’s incredibly powerful to notice that someone has linked the smell of chlorine on their swimming costume to ‘swimming’. The smell of chlorine then really stands for ‘going swimming’ and has become an individual code. For someone with greater cognitive capacities, a photograph of the swimming costume or the swimming pool, for example, might have the same effect. However, the people in the target group for this book often cannot understand information presented in a flat plane. Odour is thus a form of communication better adapted to their capacities.
If people can translate the individual code into similar situations and contexts at a given moment, then communication is taking place at an advanced signal level. They are now able to generalise.

**EXAMPLE**

*Take once again the same soft, lavender-scented cloth mentioned above in the snoezelen example. Someone understands now that this lavender-scented cloth stands for snoezelen in the activity centre, but also for snoezelen in the residence and also at home with their parents.*

### 4.3 SYMBOLIC LEVEL

People who understand communication at the symbolic level have a more extensive model of the world. Communication at the symbolic level is much less individually determined than communication at the situational or signal level. They are aware that there are codes that can be shared with other people. There is now a universal code that is understood and used by a large group of people and is a sort of language. When you think of language, you immediately associate it with words and talking, but this is not necessary. You can also get a message across using your body, gestures, facial expressions and all kinds of images as a universal code. People can now use a variety of concepts and place these in different contexts. They can also independently summon concepts, link them to each other, and communicate about them.

**EXAMPLE**

*Suppose someone with deaf-blindness receives a coffee pad to smell. Combined with other forms of communication, the coffee pad might stand for drinking coffee in the residence, or for making coffee yourself, or for buying coffee at the shops. If you’re out walking with them in town, then smelling the coffee pad stands for having a cup of coffee at a café.*

For many people from this book’s target group, I assume that they mainly understand and use communication at the situational level, and sometimes also early in the signal level. However, communication at the symbolic level can occur in people with a form of deaf-blindness. If you want to deliberately use odour as a form of communication in supporting someone, then it’s important to connect at their passive communication level.
The professional must be alert to the use of odour in providing support and must deliberately offer the odour and allow the recipient to experience it. This book focuses mainly on the use of odour to support passive communication, such as observing, experiencing, recognising and understanding. Of course, someone may also use odour themselves as a means of active communication, but this book does not focus on that aspect.

**EXAMPLE**
Suppose that someone has just washed their hair and wants to ‘tell’ you about it. They can push their head under your nose to say ‘smell how clean my hair is and how nice it smells.’
From their perspective, this is active communication using odour and body language.
Before you start deliberately using odours in supporting people, you need to think carefully about what you want to use the odour for. That is, you need to know what your purpose is in using odour with someone.

It can be fun and instructive for people without sensory or severe intellectual impairment to first go on an odour discovery tour themselves. You might like to do this with your colleagues or team.

For example, you can walk blindfolded and accompanied through a shopping centre or shopping street, and consciously pay attention to the odours you encounter along the way. What can you smell, and with which shop or object is it associated? Can you smell the bakery, perfume shop or the florist?

You can do the same thing following a route through your own house. For example, in the bathroom in the morning after someone has taken a shower, you might encounter the scent of deodorant and body lotion. In the kitchen you might smell toasted bread from breakfast, and the bedroom might still have a stale, sleepy smell.

In short, get inside the skin of the person you want to support by using odour. Perhaps this will provide you with new insights and applications.
There are several goals for which you can make deliberate use of odour in supporting someone with a severe intellectual impairment, deaf-blindness or dementia. These are listed below. The order in which they are listed does not indicate their importance. The list is also not complete, so feel free to add new goals, if this is important for the person you are supporting.

GOALS FOR THE DELIBERATE USE OF ODOUR:
1. Experiencing fundamental security
2. Influencing alertness
3. Introducing an atmosphere
4. Recognition
   a. Recognising a person
   b. Recognising a space
   c. Recognising an activity
   d. Recognising a transition
5. Calling up a memory
6. Therapeutic
7. Activity or game: Sensing odours
8. Sense of time
9. Your own ideas

The following are detailed explanations for each individual odour goal with an example given or a case described where possible. These case histories are provided by relatives and professionals from the field. They give an impression of how you can use the deliberate application of odours in your daily practice. Naturally, it is very important that all of the people supporting someone do this in the same way. By repetition and consistent application, you can give someone a good chance of achieving something in their everyday life through the use of odour. Often this will be a matter of determination and undertaking careful observation.

In the chapter about ‘Purposeful working with odour’ you will find useful tips for achieving this in the best way possible.

5.1 FUNDAMENTAL SECURITY

Every person has a natural need to feel safe and secure.

I worked for a number of years as a speech therapist at a centre for children with developmental delays. There were also children with complex and intense support needs.

It often took them half of a morning just to make it to the children’s centre. In many cases, they were woken very early by a parent or carer, washed and dressed, put into a wheelchair, fed (sometimes through a tube), and had their teeth brushed. Then they
were pushed to the front door with their jacket and bag to wait for the taxi. When the taxi finally arrived, they still often had quite a drive ahead of them. After all, there were a number of children who had to be picked up from their homes. In rural areas, these drives often took an hour. Some children had an epileptic seizure during the drive. Others may have experienced pain due to constipation. In addition, the bus ride was quite bumpy and they were shaken back and forth in their secured wheelchair. All in all, they had already received quite a number of experiences and stimuli before reaching the children’s centre. They were then taken out of the taxi backwards in their wheelchair and pushed into the central reception area. The taxi driver gave them a well-meaning pat on the head and greeted the other adults.

The large reception area was swarming with adults and children, and was a riot of images, sounds, voices and smells.

I tried then to imagine how a child like this might feel on entering and how great the chaos might be inside their little head. In a situation like this, how could you create for that child a feeling of ‘coming home’ to the children’s centre?

In a multidisciplinary working group, we decided to introduce a fixed recognition odour in the group area. This odour was introduced using an essential oil applied to a filter paper in an electric aroma diffuser. See also the chapter on ‘The influence and effect of odours’.

We did have to find the right dosage with respect to the number of drops of oil. The intention was that you would be able to pick up the scent very lightly on entering, but if you stayed in the space for longer, you’d no longer be able to smell it. Being able to smell an odour strongly all day is not pleasant for anyone and can even be disruptive.

Carers had also hung ribbons in the doorway to the group area for children with a visual impairment, so they could feel these on entering. In this way, the touch and smell sensory channels were engaged on entry to enable some degree of recognition for the children; a feeling of ‘you’re home, at your place’, on arriving at the children’s centre.

Some children were also reassured by receiving a particular soft toy or object in their hands. This toy or object had its own fragrance.

Furthermore, a number of children appreciated having this toy or object with them during the taxi ride, so that they could still feel and touch it. For the child, it was the only fixed feature of an otherwise chaotic early morning routine and taxi ride.

**NOTE**

This example is described from the point of view of a child’s negative experience. However, there are also children with severe intellectual and multiple impairments who are capable of really enjoying a taxi ride.
EXAMPLE
For example, think about what a house move might be like. In recent years, there have been a lot of construction projects in the healthcare sector, which has enabled people with a severe intellectual impairment to also have their own apartment. When moving house, we often think about new things, a good clean-up, a lick of paint and a bed with fresh or new bed linen. However, for people with a severe intellectual impairment, it can actually help for them to have their old, unwashed linen on their bed for the first couple of days after moving house. The familiar smell of the bed then provides a little bit of security in a new apartment full of unfamiliar scents.

A familiar, personal smell offers a feeling of security after moving house

EXAMPLE
An older man with an intellectual impairment and dementia had a lot of trouble falling asleep. He became very restless at night. This man had grown up in Indonesia and loved Basmati rice. His carer sprinkled a little Basmati rice cooking water on his pillow before bedtime, and he became significantly calmer, fell asleep more easily and slept better all night. For him, the scent of Basmati rice was linked to feelings of security from his youth.
5.2 INFLUENCING ALERTNESS

It is generally known that in Asian countries, such as Japan, fragrances are deliberately added to the air conditioning system in many workplaces. For example, adding a citrus scent improves employee productivity.

Some essential aromatic oils work in a relaxing way, such as lavender, while others have a stimulating effect. To get more of an idea about this, you can refer to Appendix 1 of this book: ‘Essential oils and their emotional properties’. There is also a great deal of information on the internet about essential oils and their effects or properties.

If you are supporting people from this book’s target group, you probably know that alternating properly between rest and activity during the day is very important. Accordingly, you might be able to imagine that you could work deliberately with a relaxing or stimulating scent, either individually or in some cases in a group. If you want to work with odour at an individual level, an aroma diffuser is not suitable as everyone will inadvertently be exposed to the smell. You are better off working with a tissue, handkerchief or fragrance strip (from a perfume shop) and applying a couple of drops of essential oil. Then you let the person smell this or wave the strip or tissue lightly back and forth to spread the scent near the person.

In the example described on page 13 of my deeply sleeping grandmother and the 4711 eau de cologne, this had the effect of increasing her alertness.

Recent research has shown that alertness in people with severe mental and multiple impairments comes and goes in a wave-like pattern. So if you offer someone an activity and they appear not to respond, just try again later. By observing them carefully, you may be able to recognise the peaks and troughs in their alertness.

**EXAMPLE**

_In a nursing home for people with dementia, an aroma diffuser with a citrus fragrance was used to activate people after they had taken a nap._

_This effect was further enhanced by increasing the level of light in the room (by switching on lamps or opening curtains)._
5.3 INTRODUCING AN ATMOSPHERE

Most people are sensitive to atmosphere. It can be very enjoyable to be in a room with pleasant lighting and colours, an agreeable scent in the air, cosy furniture and muted sounds. This room invites inhabitants to relax or to have a quiet chat with a friend. A conversation on a terrace with a nice drink at hand is far more enjoyable than in a crowded train or metro full of people who are wearing wet, smelly jackets and are in a hurry to get home.

By extension, you can introduce a particular atmosphere into the living room or bedroom of a person belonging to this book’s target group. You can link materials, colours and scents to the seasons, for example. Many residential and daytime activity centres work around themes to do with the seasons or highlights in the year.

EXAMPLE

*When you think of Christmas, you associate it with the scent of pine greenery or oranges with cloves and cinnamon. Real pine trees are no longer allowed in centres, due to the risk of fire. Using a pine-scented essential oil in an aroma diffuser can add a little more of a Christmas feeling.*

*Around Sinterklaas, the smell of home-made gingerbread or speculaas really creates an atmosphere.*
The smell of a fire burning in a brazier can provide a winter atmosphere, along with the smell and taste of hot chocolate and marshmallows.

In the summer, it’s lovely to smell the scent of lavender and freshly mown grass in the garden.

The point is that you are very aware of the odours in your surroundings yourself, and that you also enable the person you are supporting to experience these odours in a focused way. However, make sure to keep observing them closely. Some people can become over-stimulated by odours, sounds and movements. Fine-tuning the dosing is always important. Never allow yourself to go into auto-pilot while providing support.

5.4 RECOGNITION

5.4.1 Recognising a person

People from this book’s target group often have a large and frequently changing group of supporters around them in their daily lives. With respect to children who still live at home with their parents, this number is usually quite manageable. However, for adults in a residential situation and activity centre, this plays a major role. On one day you may be woken up and helped out of bed by one person, and the next day by someone else. For one of the people you support, have a look at how many different people they have to deal with in one day, let alone a week.

If someone finds it difficult to recognise people on the basis of sight and hearing, a scent can support them in this. Each person has their own scent anyway, comparable with a unique fingerprint. As a professional, you may often use a certain deodorant or eau de toilette. By deliberately wearing this scent while you’re working, the scent, mixed with your own body odour, can become a specific recognition scent for someone from the target group.

You can also use touch as a source of extra support. For example, you can always wear the same bracelet, brooch or ring and deliberately allow the person you are supporting to touch it. It’s also important to really take the time for them to touch and smell.

Stimulus processing is slower for many people in the target group, and our pace of life is almost always too rapid for them. As a professional, it’s quite an art to maintain a sort of inner peace in the hectic pace of everyday life, and to be in and experience the ‘here and now’ with the other. This can provide positive mutual contact, more satisfaction
and greater enjoyment of your work. This ‘here and now’ attitude of the professional may also in many cases prevent hard-to-understand behaviour in the other. Taking time, observing carefully, and adapting your communication to the capabilities of the other person are always important strategies. Therefore, give someone enough time to observe the scent, to feel, to process the stimuli and to respond to them.

EXAMPLE

The father of Stein, a boy with a severe intellectual impairment and epilepsy, had a great deal of difficulty sharing the care of his son with others. ‘He only recognises his parents,’ said Stein’s father regularly to the employees at the residence. Stein suffered a lot from epilepsy and could scream extremely penetratingly. Only his father could actually get him to calm down, by holding him firmly against his body. The weekend after Sinterklaas, Stein’s parents came to visit him. That day, Stein wasn’t feeling well and screamed a lot. His father embraced him firmly, but to everyone’s surprise, Stein did not calm down and simply kept screaming. One of the permanent employees came along, and she noticed that Stein’s father was wearing a new, strongly smelling scent. When she gave him a compliment about this, the father said that he had received this new fragrance as a Sinterklaas gift. The employee asked if the father would wear his old scent the next time he came to visit, to see whether Stein responded strongly to the fragrance as a way of recognising his father. And indeed, the next time Stein’s father was able to calm him once again by holding him close.

For children who develop normally, scent can also play a major role in recognising people.

EXAMPLE

I recently saw a video clip on YouTube of a baby in his father’s arms. The father normally had a moustache and beard, but he had just shaved these off. The normally developing baby in the video appeared not to recognise his father at first. He reached out with his hand to touch his father’s face. Shortly afterwards, the baby came very close to his father and started to smell his face. Only then could you see the moment of recognition, and the baby smiled.

The baby smiled after the moment of recognition
EXAMPLE
I know a visually and intellectually impaired young man who, when unfamiliar people enter his group area, goes to these people and smells them from close quarters.

EXAMPLE
A deaf-blind man who uses hearing aids told me the following anecdote. He works at a day centre and hears and smells which of the staff is nearby. One day, someone came in and he greeted this person with: “Hi Peter, it’s great that you’re working today!” “No,” said Peter in a high voice, “I’m Laura.” “That’s strange,” said the deaf-blind man, “You smell just like Peter.” It turned out that Laura and Peter had recently begun a relationship, and this deaf-blind man was the first to find out.

5.4.2 Recognising a space
For us, recognising a space and its associated function is often very self-evident. For people in this book’s target group, however, this is not always the case. Some spaces already have a very strong smell, for example an indoor swimming pool that smells of chlorine, or a covered arena at a riding school, that smells of horses. There are often also odours in the air in sanitary areas. These could include pleasant odours of things like shower gel, bubble bath or deodorant, or less pleasant odours like stool, urine and sweat.
The kitchen also often smells of whatever is being cooked at the time.
However, the deliberate use of odour can increase a person’s ability to orient themselves.

EXAMPLE
In a nursing home, there is a large central meeting area. From this area, you can enter four identical corridors with swing doors, leading to the residents’ bed-sitting rooms. A number of residents always experience difficulty in locating their own rooms. This is extremely stressful, and demands a great deal of time and patience on the part of the carers.
After consultation, a decision was made to give each of the corridors its own colour. Later on, each corridor also received its own scent. Because the corridors are closed off by swing doors, the scents barely mix. The number of ‘lost’ residents is now much lower than before.
Staff at a children’s centre decided to hang a fixed object on all of the doors to the group areas, at eye height for the children. However, there are many children with vision problems. The staff have therefore also decided to add an odour to the group areas. This odour is dispersed for quarter of an hour before the children enter, using an aroma diffuser with an essential oil. The fragrance is chosen randomly. Once all the children are inside, the diffuser is turned off again. The carers have noticed that a number of children turn their heads towards the source of the fragrance. They therefore expect that these children are really smelling the scent.

It is important to first think carefully about what an odour does and why you want to use the odour in a particular area. If the area is being used for activities, then it’s good to choose a stimulating fragrance. On the other hand, if the area is being used for relaxation, such as someone’s bedroom or the snoezelen room, then it’s better to choose a scent with a soothing effect. Some people have a bed-sitting room, where they both sleep and carry out activities. In this case, you must consider carefully beforehand how you can link sleep and activities with two different odours. The use of these odours must be built up slowly. Someone must have enough time to recognise a smell through repetition, and to establish the desired association.

A girl with an intellectual impairment and deaf-blindness had difficulty falling and staying asleep, and often woke up frightened at night. Actually, she always fell asleep in the living room. Her parents and supporters started to use scent to strengthen the function of her bedroom. As soon as the girl dropped off to sleep, she was immediately brought to her bedroom and put in bed. An aroma diffuser was used in her room to provide a relaxing fragrance. This fragrance was also used in the bed at the children’s centre, and in her bedroom at her grandparents’ house. All of this girl’s sleeping places now had the same smell. Clear agreements were made that the girl was no longer to be changed in the bed at the children’s centre. This strengthened the link between ‘relaxing odour’ and ‘bed = sleep’ and has ensured that the girl now falls asleep in her bed and sleeps better through the night. All those involved in her care are still sticking to the agreement and noticing the positive effect.
5.4.3 Recognising an activity

For many healthcare professionals, using a photo or pictograph to announce an activity is a familiar strategy. Photograph or pictogram schedule boards hang on the wall at many day centres and residences for people with an intellectual impairment. These schedule boards are sometimes intended for a whole group of people, and sometimes for just one. However, the people from this book’s target group don’t understand information presented in this way. Information in a flat plane (a photograph, drawing, image or pictogram) is too abstract for them.

Three-dimensional objects, perhaps combined with odour, suit them better. The interval between announcing an activity with an object and/or odour, and actually carrying out the activity, must be very short. This is particularly so when you’re just starting out with using odours and objects in providing support. Preferably, you will use existing odours and objects, and only deviate to essential oils if this is not possible.

**EXAMPLE**

*It's around 10.00 am and time for a cup of coffee. Someone receives a coffee pad to touch, smell, and if possible, to look at. The word ‘coffee!’ is said. They are then taken to the coffee machine and a mug of fresh coffee is made there using the coffee pad. They receive this mug of coffee and can go and sit in their own chair to drink it. In this way, you've carried out an activity together and have actively involved someone in all of the necessary actions. If you do this every day in the same way, after a while a kind of recognition or familiarity with the situation will arise. You might see this when someone, on touching and smelling the coffee pad, spontaneously stands up or even walks towards the coffee machine. The reaction can also be very small. For example, you can see someone making smacking sounds with their mouths, showing higher muscle tension, or fluttering their hands with excitement.*

There are many possible variations on this example.

For example, smelling, touching and seeing a cake of soap or a soap pump as an announcement of the activity of washing the hands.

Smelling, touching and seeing a bottle of shampoo announces the washing of hair.

You can also allow someone to smell shaving foam before starting to shave them.

At mealtimes, you can first show someone the food on the plate or allow them to see and smell it on the spoon before bringing it to their mouth. When offering a hot drink or porridge, you can let them first feel the warmth of the mug by letting them hold it themselves. You can also help them to smell the contents by holding the mug close to their nose.
At bath time, you could let someone smell the bubble bath in the bottle, and then go together with them to the bathroom where the bath is filling up with water and the same scented bubble bath. Through repetition over time, you hope that the person will make a scent connection between the bubble bath bottle and actually having a bath. Keep the interval between announcing the activity and carrying it out as short as possible.

You can do the same thing if you want to invite someone to go to the snoezelen room. In the living room, you can let them smell some lavender fragrance on a tissue with a drop of essential oil. Then go straight to the snoezelen room, where the scent of lavender is already in the air thanks to the use of an aroma diffuser.

Sometimes it’s not possible to keep the interval very short between announcing and carrying out an activity. For example, if you go horse riding or swimming, in many cases you first have to take a taxi ride to the riding school or swimming pool. Still, you would like to prepare someone for what’s ahead. These are the most difficult situations to ‘train in’.

When I was still working at the children’s centre, we approached this as follows.

**EXAMPLE**

*When a child was due to go horse riding, we gave them their own riding hat to hold and let them smell, touch and where possible, see the hat. Then the child went into the taxi, still holding the hat. During the taxi ride, the child held their hat on their lap. The carer regularly repeated ‘horse riding’ and let the child smell the hat again. In this way, we tried to create a ‘bridge’ for that interval, and to use the hat, smelling of horses, as a reminder of horse riding.*
We did the same with swimming, except that this time we used the child’s own swimming costume with the smell of chlorine on it.

When ‘training’ a scent connection, you can also make use of something called ‘backward chaining’. This involves working through the process in small steps from back to front.

In the case of the horse riding hat, you first offer the hat to the child right before putting them on the horse. The next time, you do this just a little bit earlier. Over time, you will eventually be able to give them the hat before getting into the taxi, or even when you first announce the activity at home or at the day centre. If you don’t have a good idea of how to approach this, you can always consult with a behavioural scientist, communication expert or speech therapist at your workplace.

5.4.1 Recognising a transition
Some people have extra difficulty with making the transition from one situation to another. To help prepare someone and make them aware of an upcoming change, you can make use of a set object with a set scent. The type of object and the material from which it is made is determined by the person with whom you want to use it. One person may prefer a soft object, while another will prefer a hard, sturdy object. This often has to do with the individual’s stimulus processing and the sensitivity of the hands. For some people with disorders on the autistic spectrum, a recognition sign is also used to signal a transition. This might be the ringing of a bell, or a ball that has to be rolled through a coiled tube. After this, the new situation or activity is announced. The idea of a set object with a set fragrance is a variation on this idea and can be used with people from this book’s target group. Depending on the person’s capabilities, you can choose an object that is brightly coloured or makes a sound.

5.5 CALLING UP A MEMORY
Smell and memory are very strongly connected to each other through the brain’s limbic system. If you know something about someone’s former home, you can make use of this.

_The flavour of self-baked biscuits as a means of making a connection_
If you discover from reports or conversations with relatives or other people where someone with a severe intellectual impairment, deaf-blindness or dementia used to live in their youth, this can be a way in for providing support. Suppose someone grew up on a farm in the countryside with sheep, cattle and horses. You could then observe the effect of the smell of straw on this person, or the smell of sheep’s wool or horsehair. If they can handle it, you can also let them touch the wool, hair or straw.

Do they become more alert, or perhaps more relaxed? Do they react in a way that you hadn’t anticipated?

I think that most people belonging to this book’s target group do not have memories like ‘that was then and there, with that person’. Recognition and memory exist on a much more basic feeling level, a feeling of fundamental safety and security, and a sense that it’s all good.

You can also link this feeling of familiarity and memory to a situation.

The life story of a deaf-blind woman revealed that she had grown up in a baker’s family. She was always surrounded with delicious baking smells. When this woman was due to go to her parents’ home for the weekend, she would receive a baked bread roll for breakfast at her residence. The staff hoped that, through repetition, they could help her to make the connection between ‘the smell of bread’ and ‘going to my parents’. Sometimes her parents also came to visit her. Prior to this visit, the carers at the residence baked biscuits with her. She helped to knead and taste the dough. When the biscuits were ready, they were put in the biscuit tin. When her parents came to visit her, she could offer the biscuit tin around. The staff hoped that she would make the link between ‘the smell of biscuits’ and ‘my parents are coming’.

Naturally, the effect of this way of working is highly dependent on coordination in the person’s social environment. For example, suppose that a well-meaning colleague decided to bake bread rolls on a weekend that the woman was not going to visit her parents. To what extent would she become confused by this, and would she perhaps even display behaviour that is difficult to interpret?
5.6 THERAPEUTIC
You have no doubt heard of aromatherapy, a term coined by French chemist Gattefosse in 1937. In 1910, he discovered by accident that lavender oil healed burns faster. He became so curious about this that he carried out further research. He discovered that each essential oil had a specific healing effect and he grouped them into stimulating and calming categories.

We all know that smells can evoke certain emotions, but how can you establish that scientifically? In the past twenty years, International Flavours & Fragrances (IFF) have been working on a model to establish the physical effects of flavours and odours on our emotions. They call this Mood Mapping.

They opted for eight different emotions, namely: cheerful, relaxed, sensual, stimulating, irritating, stressed, depressed and apathetic.

Test subjects were asked to smell fragrances and categorise them according to the emotion they thought they best suited.

Although everyone is different and smells differently, IFF was able to demonstrate that certain odours were classified in the same category by a large proportion of the test subjects globally. All of the results of this research were put into a database and are now used in the development of new perfumes and further research into stress-reducing scents such as lavender.

Lavender is categorised as ‘relaxed’ by many people. But is the scent alone strong enough to reduce muscle tension, heart rate and blood pressure? This can be investigated and was shown to be indeed the case for certain odours.
Another study in 2005 showed that lavender oil can also ensure that you sleep more deeply.

It therefore seems possible to scientifically establish vague concepts such as ‘scent’ and ‘emotion’.

Offering a person a certain odour or using it during massage potentially has a greater influence than we might first have thought. For example, massage can be used in combination with certain oils to relieve constipation.

5.7 ACTIVITY OR GAME

You can also work with odours purely to help someone gain experiences.

You can do this by having fun together. For example, choose two strongly differing odours and offer these alternately to someone at intermittent intervals. Carefully observe what happens with the other person. Perhaps you can discover their preferences in this way or observe certain responses. If you build this activity into the programme and properly describe the scents you have used and what you’ve observed, you will develop a useful odour logbook. You can use this logbook to substantiate certain odour choices in the provision of further support.
For people with greater cognitive capabilities, you could also make and play a scent memory or scent lotto game. There are also materials such as scented clay, markers, paper, balls and soft toys available. Many items also have their own smell; there’s nothing nicer than exploring a container full of autumn leaves, chestnuts or pine cones with your hands and nose. Many fresh herbs also smell delicious, such as basil, thyme or rosemary. You can make excellent scent pots out of empty herb shakers by filling them with things like chopped onion, mandarin peel, coffee beans, ground fresh cloves or cinnamon sticks. Let your imagination run wild! You can’t easily go wrong with this. Of course, you have to be careful that someone doesn’t put the materials in their mouth and choke on them. When using scent pots, you will have to replace the contents from time to time as the materials do not have a long shelf life and will get mouldy.

I heard about another creative application from the mother of a blind and hearing-impaired young woman in a wheelchair.

**EXAMPLE**

*My daughter loves to paint, but can’t see what she’s making. To help her to experience her painting more, I add scented oil to the paint paste. For example, if she’s painting roses, I add a couple of drops of rose oil to the paints. Her enjoyment is clear to see.*

**EXAMPLE**

*If you want someone to experience odour as an activity, you can also put a make-up swab with a couple of drops of essential oil on it in a balloon pump. Moving the pump up and down produces a scented stream of air. You can let the air stream over someone’s face. They will then be able to perceive the smell more easily. However, don’t blow the stream directly into someone’s face, as this can feel extremely unpleasant.*
5.8 SENSE OF TIME
The target groups central to this book generally do not have a concept of time. They don’t know what time it is or which day of the week it is today. However, they often do have a sense of order. First drink coffee, then go outside. First brush teeth, then put on music box, and then go to sleep.

A perception of the passage of daily time can arise if you use an aroma diffuser briefly to offer different fragrances during the day, in the morning when getting up, at midday after lunch and in the evening. You can also indicate the four seasons of winter, spring, summer and autumn with specific scents, and devise corresponding activities.

I recently heard about a carer who had given the days of the week each a different smell. For example, Sunday was vanilla, Monday was citrus, Tuesday cinnamon, and so on.

However, there is a risk that a scent used for a specific day is also used for an activity or something else, and this may be confusing to someone from this book’s target group.

5.9 YOUR OWN IDEAS
You may discover other applications of scent that are not described in this chapter. Use your creativity and see what works! I’m always happy to hear about new ideas and applications, and you can find my contact details in the back of this book.
In providing support on a daily basis, there are already many different odours that occur naturally. These come as a bonus, as it were. Examples include the smell of freshly brewed coffee, a hot meal, a running bath with scented bath oil, toothpaste, a freshly baked cake, the swimming pool or the riding school.

In these situations, the odour is not always deliberately offered, but is just there. By offering the odour more deliberately and giving someone time to process this fragrance stimulus, you can help them to be better prepared for what's coming up, to be more active, and to have greater control.

You can perhaps prepare other people with greater capabilities for what's coming up by telling them in simple language, showing them a photograph or pictogram, or making a gesture. However, in most cases these forms of communication are too difficult for the people in this target group. They are mainly dependent on the odour and perhaps the touching of an associated object.

If you want to support someone through the use of an odour and this odour is not already naturally present, you can use essential oils.

### 6.1 ESSENTIAL OILS

Essential oils are aromatic products that evaporate completely and, with a few exceptions, leave no trace. They are soluble in alcohol, vinegar, melted wax and vegetable oil. They are not soluble in water. They are often coloured due to the presence of resin. Essential oils occur in petals, leaves, flowers, stems, seeds, roots, berries and resins.

Because the extraction of the oils is very labour intensive, they aren’t cheap. Fortunately, you can also use the oils very sparingly. You can order them over the internet or buy them in health food stores or specialist drug stores. You know then that you’re buying good essential oils and not synthetic imitations.
Under ideal circumstances, you can store essential oils for around six years. In practice, however, you should assume a shelf life of around two years. The quality of the oil diminishes if you expose it to sunlight. The essential oil usually comes in a brown or blue, well-sealed bottle with a dropper. It’s important to keep the oil in a dry, cool and dark place. The bottles have safety caps because they can be dangerous if consumed.

6.2 ESSENTIAL OILS AND THEIR PROPERTIES
Appendix 1 contains an alphabetical overview.

In describing the properties, I’ve limited myself to their influence on someone’s emotions and behaviour. I have also omitted the medicinal or therapeutic effect that is often mentioned when describing an essential oil. That has to do with the field of aromatherapy, which is not the purpose of this book. I have, however, mentioned the contraindications for a number of essential oils. When working with people with epilepsy and high blood pressure, you have to be extra careful about which oils you use. When in doubt, I recommend consulting an aroma expert. If you would like to know more about aromatherapy, please refer to the suggestions in the chapter ‘Literature, interviews and sites’.

6.3 ESSENTIAL OILS AND THEIR APPLICATIONS
Vaporising essential oils gives you the quickest and simplest route to the body. The oil is absorbed through the nose and the nasal mucosa (olfactory epithelium), reaching the limbic system through the olfactory bulb. Vaporising an essential oil allows you to take in a scent that can influence emotion and behaviour. Various applications of this are described below.

Through direct inhalation:
This is easily applied if you want to use the odour in supporting just one person. Other people in the vicinity will also not be too bothered by it.
You can put a few drops (1-5) of essential oil on a handkerchief, tissue, fragrance strip (from a perfume shop), item of clothing or the underside of a sheet or duvet.
Another option is to use an aroma stone.
You use this by applying a drop of essential oil to the aroma stone. This is handy for use in the bedroom, for example next to the pillow. The good thing about an aroma stone is that, once the drop of oil has evaporated, you can apply a drop of another oil if you wish. You can also make an aroma brooch out of an aroma stone by attaching a fastener to the back of it with glue. Attractive aroma pendants for necklaces are also available.
Through indirect inhalation:
It is also possible to provide odour support to a number of people at the same time in a particular space. You can do this in a number of ways, a couple of which are outlined below.

You can put a few drops of essential oil on a tissue and lay this on top of the central heating radiator. The air circulation spreads the scent throughout the room. This works best if the heating is turned on.

You can put a few drops of essential oil in an evaporating tray with water, and then hang this on the radiator. The evaporation of the water releases the fragrance. This also works best if the heating is switched on. The air circulation disperses the scent throughout the space.

You can use an aroma diffuser. This consists of a glass or stone dish on a holder with a tea light underneath. You put water in the dish (preferably lime-poor water). I often boil the water beforehand and get it from the kettle. Five drops of essential oil are generally enough for use in a generous space. You may need to try it out to find what works best with respect to the size of the space and the strength of the scented oil. The
water must evaporate gradually and should certainly not boil dry. Aroma diffusers are available from many shops and are generally inexpensive.

There are also electrical diffusers available. These are often more practical for the healthcare sector, as a tea light may represent a fire hazard. They appear much the same as an ordinary aroma diffuser. You also put the water and drops of oil in a dish. The dish in both types of diffuser is easy to clean and dry, after which you can add another type of oil to the water. You can also get electrical aroma stones, to which you can directly apply the oil without needing any water. These stones warm up to around 40 degrees, so the oil can’t burn. Electrical diffusers are a little more expensive and are often available through the internet.

There are also electrical aroma diffusers with a paper filter inside. The scent is dispersed through cold evaporation and a fan inside the device. One disadvantage of this is that you need to use a new filter for each essential oil. You have to replace the filter and store the previous filter in an airtight container for reuse. This is not always practical as it requires extra actions, which means a greater chance that the professionals won’t use it consistently. The filters also need to be completely replaced eventually. I recently received a tip that make-up tissues were a good substitute for these filters. You crumple up one of these tissues with some drops of scented oil on it and put it under the device. This is a much cheaper solution. One of the advantages of these aroma diffusers is that you don’t need to use water with them. They are also available via the internet, along with the filters. All in all, this is the most expensive application.

You can also use a scent bottle in small spaces, such as a toilet or bedroom. This is particularly useful if an aroma lamp is not an option, for example if there is no power outlet, or if power cords or tea lights are not desirable. You can put a couple of millimetres of essential oil in the scent bottle, so you can enjoy the effect over a longer period of time. The scent is dispersed through cold evaporation.
Another option apart from essential oils is scented bags. You can find these in many shops. The bags are mostly made of paper, but fabric bags are better and nicer. They are also easy to make yourself, and you can fill them with herbs or other aromatic seeds.

**TIP**

*Whichever scent-dispersal method you want to use, always pay careful attention to getting the dosage right.*

On entering an area, you should be able to smell the fragrance consciously for a moment. If you remain in the area for longer, the fragrance should no longer be conspicuous. Find out how many droplets of an essential oil give you the desired effect. You will need to test this out for each scented oil. For example, you will need fewer droplets of a peppermint oil in a specific area than a mandarin oil.

There are also scented candles of every type available, but the scent in these is synthetic. The same applies to all kinds of electrical air fresheners available in the supermarket. *In my opinion, these are less suitable for the target group.*

Incense sticks, cones or rolls are also an option, but it’s difficult to control the dose and the scent is often extremely penetrating. I would not chose this option myself.
OTHER USES

Massage
You can also help someone enjoy an essential oil through massage. This has a dual effect, with touch and scent both playing a role. The nervous system responds to touch on the skin and the nerve endings pass this information on to the internal organs, the glands, the nerves and the circulatory system.

A massage is suitable for circulatory problems, fluid retention, headaches, joint problems and stress. It supports the elimination of waste products, stimulates better blood circulation, reduces pain and soothes tension and agitation. In addition, it's a pleasant moment of contact between two people, and offers the opportunity for someone to feel their own body and focus their attention more.

There are all kinds of massages. Foot and hand massages are very simple to incorporate into someone’s daily life. A more extensive massage of the back, shoulders or belly can also be very enjoyable.

You should never apply an undiluted essential oil to the skin as it is very strongly concentrated and can irritate the skin. You can mix essential oils with a good base oil such as almond, jojoba or grape seed oil. A good standard is 50 millilitres of base oil with 15 to 25 drops of essential oil.

Young children and elderly people only need half the amount of essential oils, because their skin is thinner. In this way you can make a personal massage oil for someone relatively cheaply.

Bathing
By adding an essential oil to the bathwater, you can achieve a dual effect due to vaporisation and entry through the nose, and absorption through the skin. However, an essential oil does not dissolve in water, but remains floating on the water surface. This means the concentration may be too high and can cause skin irritation. To prevent this, you can add the oil (five to 15 drops) to a tablespoonful of neutral bubble bath, full cream, milk or buttermilk. You add the mixture to the bathwater, which turns the water cloudy white.

Footbath
When using a footbath, possibly an electric one, you can also consider adding a couple of drops of essential oil dissolved in a tablespoonful of full cream or milk. Other options include bath salts and effervescent tablets or balls.

NB
Never use essential oils during an epilepsy seizure.
The deliberate application of odour in supporting people always demands a multidisciplinary approach. The role of parents, trusted carers and relatives is also very important in this. After all, in most cases they know the person better than anyone else and can provide much useful information.

Those professionals who choose to work deliberately with odour in the support setting must have a good understanding of why, how and for what purpose they can do this. A clear, consistent approach by the social environment is essential for the person receiving the support to be able to recognise and learn.

If a professional does not recognise the benefits of using odour, there is a good chance that they either won’t use it in their practice at all or will not use it properly. Proper information provision and explanation, involvement and a shared commitment are important prerequisites for starting to work purposefully with odour.

If purposeful working with odour is dependent on the ideas and enthusiasm of only one professional, this makes it very vulnerable. When that professional leaves or is absent for a long period, you often see purposeful odour-mediated support taking a back seat. Therefore, always make sure that a group of professionals supports the idea and is committed to it.

It is also important that the agreements reached about odour are recorded in the guidance, care and support plan for the person receiving the support. This means there is a guarantee for the implementation, evaluation and adjustment of the agreements.

There must certainly be good communication and coordination between the professionals at each of someone’s places of accommodation, whether it be at home with their parents, at the day centre, at the guest house or in their residence.

Furthermore, it is important to keep the odour support workable, particularly for those in the person’s social circle. The fewer extra actions required, the more accessible the method is. This is why it’s often easiest to work with all of the existing odours (coffee, baking, cooking, swimming pool, riding school, shaving foam, toothpaste), instead of adding an extra scent by means of essential oils.

*Use existing scents*
7.1 QUESTIONNAIRE FOR INITIATING AND IMPLEMENTING ODOUR SUPPORT
(see also Appendix 2)

● Who can gain added value from the methodical use of odour in support?

**Explanation**
*Here you can discuss all of the people for whom you provide support.*
*What do you know about their hearing and visual capabilities? What is known about their cognitive capacity?*
*Do they recognise the world around them sufficiently? Can they anticipate what’s coming and help with actions? Do they feel safe enough? If you have the impression that the answer to one of these questions is ‘no’ or that there are limitations, then odour may add something in the provision of support.*

● For which purpose can you use odour support?

**Explanation**
*Is the goal to experience fundamental security? Do you want to influence someone’s alertness? Do you want to introduce a particular atmosphere? Does it concern recognition of a person, space or activity? Do you want to announce transitions? Do you want to evoke memories? Is therapy your goal? Do you want to enable someone to experience odour sensations? Do you want to use scent creatively? Do you want to stimulate the experience of time?*

● How do you know that someone can smell?

**Explanation**
*There is no standard test for this. When offering an odour, you can observe someone carefully and perhaps see reactions that indicate that they have smelt something. For example, they may turn their head away from the odour source or may lean forward more. They may become completely silent when they would otherwise normally make sounds. Someone with deaf-blindness who smells food may make sounds like the smacking of lips. If someone exhibits clear preferences or aversions to flavours, they are probably able to smell things sufficiently; after all, smell and taste are strongly linked.*
● Is it an individual goal, or a goal for several people?

**Explanation**
This is important to know in terms of the method you plan to use to disperse the scent. If you only intend to work with one person, you can’t use an aroma diffuser. You would be better off using a tissue, handkerchief, aroma stone or perfume strip with an essential oil. For environmental smells such as bubble bath, shaving gel and coffee pads, it’s easy to offer them to someone under their nose. Other people in the vicinity will then be less disrupted by the smell.

If the odour is intended for more than one person at a time, then you will also need to know how each individual responds to the odour. One person may find it pleasant, while another feels nauseous or gets a headache. Carers/professionals may also have their own associations with a scent that makes consistent use more difficult.

● At which communication level should you offer the odour?

**Explanation**
Does someone understand communication at a starting or advanced situational level, or at a starting signal level?

People with deaf-blindness may still be offered odours at higher communication levels.

You can consult a speech therapist or communication expert from your workplace for tips and advice.

● Which odours that are already present can you make use of?

**Explanation**
Go through the daily activities and see what odours are associated with them. With a little creativity, you’re sure to arrive at a lot of natural applications.

● Which essential oil would you like to use, and why?

**Explanation**
Every essential oil has its own specific properties. Are you looking for a neutral, stimulating or soothing scent? What are you hoping to achieve?
Are there contraindications for certain essential oils?

**Explanation**

Not all essential oils can be used for people with epilepsy and high blood pressure. You can consult an aromatherapy expert for advice on this. Appendix 1 of this book also provides some useful information.

How do you want to offer/disperse the fragrance?

**Explanation**

This depends on your aim, and whether you want to use it with one or more people. See also the chapter in this book on ‘The influence and effect of odours’.

How can you link a utensil to the scent and make use of touch?

**Explanation**

There are utensils for many daily activities. By allowing someone to touch these utensils and smell an already present or added scent, you provide information through at least two sensory channels. This increases the chance of the information becoming established at the brain level. Examples include letting someone touch and smell a horse riding helmet, or a toothbrush with toothpaste on it. Give them enough time to absorb and process all of the sensory stimuli.

How are you going to introduce the odour?

**Explanation**

Think ahead and discuss together when and in which situation you are going to start working with the odour. When will you start? How are you going to approach it in a clear way? Consider also using the Anchoring Form as an aid (Appendix 4).
How do you observe whether someone finds an odour pleasant or unpleasant?

**Explanation**
Certainly at the start of a new odour objective, it is useful to keep an odour report for an agreed period and to record the behaviours you observe in the person with whom you’re working. Make it as simple as possible for carers/professionals to fill this in. The best idea is a system in which you have to tick items or provide a score at the most and don’t have to provide a detailed description. In this section, also think about asking parents and relatives about their family member’s scent preferences.

What steps are you going to follow in achieving an odour goal?

**Explanation**
Discuss this with each other and agree on what you’re going to do. For how many weeks will you do which step? When will you evaluate and adjust? When will you expand to include a different accommodation location?

How are you going to describe the odour support in the person’s support plan?

**Explanation**
This depends on the system used in the organisation for which you work as a professional.

When will you move on to the next goal?

**Explanation**
This depends on the person’s capacity. If they are not well or are absent a lot, then it’s not a good idea to start with a new goal. There can also be too many changes in a support team or something else might be going on which also makes it unwise to start something new. Sometimes you need to wait a little longer before you can start on a new goal.
● With whom must you collaborate in the person’s social environment?

**Explanation**
What is the person’s social network? Which places do they visit during a week?

● Who is responsible for maintaining the odour system?

**Explanation**
Who will ensure that the essential oils are always available and are properly stored? Who will purchase aids if these are necessary? Who will create a storage system for odour objects?
In my experience, shared responsibility does not work well for this. Make one person responsible for this, who could be an ‘odour coach’.

● How will new professionals be informed about and trained in the use of odours?

**Explanation**
Make agreements about this and stay alert to it. The ‘odour coach’ can play a role.

● When, with whom and how will this be evaluated?

**Explanation**
This also depends on the organisation for which you work. Don’t forget family and relatives in this arrangement. In some cases, the person may be able to make an active contribution to the evaluation themselves, for example those with deafblindness and sufficient cognitive and communicative capacities.

**NOTE**
All of these questions can provide you with information for a person’s ‘Individual odour profile’. You can find the format for the ‘Individual odour profile’ in Appendix 3.
7.2 INDIVIDUAL ODOUR PLAN

If you are going to work with odours in your provision of support, you can also record this in an ‘odour plan’ for someone. This individual odour plan could be part of a supervision plan, for example. Naturally, an individual odour plan is built up and expanded step by step. The person must get used to it themselves and have enough time to come to recognise it. The person’s social circle must also grow into this and become accustomed to the daily activities and tasks.

It is not difficult to create an individual odour plan. All you have to do is follow the person’s daily programme and fit in a number of odours that you name separately, so that the same odours are always used. Discuss beforehand how you are going to shape the individual odour plan.

Below are two examples of an individual odour plan to give you an idea of how it could look.
INDIVIDUAL ODOUR PLAN 1

The client is in the bedroom and will be going to the bathroom shortly. In the bedroom, they are offered the scent of their own shower gel by rubbing a drop of it under their nose. You can also make a showering gesture on their head. Once in the bathroom, the client is washed under the shower with the shower gel.

In the meantime, there has been an active scent diffusing in the living room for the past fifteen minutes. When the client is finished in the bathroom, they are offered the set fragrance there that is diffusing in the living room. You can do this by allowing them to smell the bottle containing the oil you have used, or you can place a drop of the oil on a tissue and let them smell that. The client then goes to the living room, recognising it because of the set odour.

Making coffee: You let the client smell the coffee pad and then put on the coffee together. Afterwards, the client drinks their mug of coffee.

Discuss with the day centre whether the staff there want to use a scent, and if so, which scent it is. Right before leaving for the day centre, let the client smell this scent. Telephone the centre to let them know the client is on their way, so they can activate the scent there.

When the client is ready to come home, the staff at the day centre let them smell the scent of the living room at the residence. They telephone the client’s residence to say that they are on their way, and the professional there activates the set fragrance.

NOTE

There must be good collaboration between the day centre and the residence. The scents to be used are all listed in the day programme. Be careful not to use too many added scents in a day.

You can also investigate whether a specific object works without an added odour. For example, at the day centre you can let the client see, touch and smell a particular soft toy as a way of announcing that it’s time to go home. At the residence, another object can be chosen for using to announce visits to the day centre, for example, the client’s bag with a lunch box in it. Don’t make it too complicated and link it to what you already have in place.
INDIVIDUAL ODOUR PLAN 2

Showering:
Allow client to smell the shower gel in their bedroom (pine scent)

Living room:
Allow client to smell the living room scent (orange) while still in the bathroom.

Making coffee:
Let the client smell the coffee pad before commencing the activity.

Going to the day centre:
Agree on which scent is to be used for this and allow the client to smell it.

Making tea:
Let the client smell the teabag.

Swimming:
Allow the client to smell their swimming costume or a container of chlorinated water before leaving for the swimming pool. On arriving at the swimming pool, the client will smell the chlorine in the air again.

Snoezelen:
Start up the scent in the snoezelen area 10 minutes before the client is to go there and let them smell the scent beforehand (rose).

Going home:
Let the client smell the living room scent (orange).

Cooking:
Allow the client to smell a herb (coriander).
Washing up:
Scent of the dishwashing detergent (lemon).

Bedroom:
If the client has an activity to do in the bedroom, such as listening to music, link this to a scent (sandalwood).
Please note: If the client is going to sleep, use a different scent to the one for listening to music.

Use a fixed scent for going to bed and start it up in the bedroom 10 minutes before bedtime. Let the client smell it in the bathroom or living room (lavender).

NOTE
It’s important to ventilate a room well after using a scent, so that the next scent used can be clearly distinguished.

TIP
Personally, I think the Anchoring Form described in Appendix 4 is a useful aid for providing the social circle with a uniform approach to receiving support for an activity.
Sometimes the Anchoring Form is necessary at first in order to map out the different working methods of the professionals. You can then arrive at a uniform approach and apply this in all the daily activities with everyone involved. If this approach works well, you can then record it in the person’s individual plan/odour plan.

From my experience with teams, I know that completing the Anchoring Form takes no more than five minutes per professional. Copies of the blank Anchoring Form are often provided to the members of a team by one professional. Everyone then fills in an agreed activity for the same person, describing how they carry out the activity with this person at the moment.
Then someone from the team looks at and compares all of the completed Anchoring Forms. This reveals any major differences in approach.
At a subsequent team meeting, the team can get down to work straight away as the preliminary work has already been done. They can choose and establish a uniform approach. The perspective of the person receiving support is always the central priority and the starting point. Video images of the activity concerned can also be very useful in this. The images help to ensure that you’re talking about the same thing; it’s very easy to talk at cross purposes if you only have words to refer to.
The chosen approach is then used for an agreed period by all those involved and then evaluated and adjusted where necessary. It may take a little time to get used to working in this way, but it costs little time per team meeting and yields enormous benefits for the person you are supporting. I can also imagine that you, as a professional, can derive a great deal of satisfaction from providing support in such a uniform way, and seeing the person you’re working with respond differently as a result.

Allow the person to smell the scent of dishwashing liquid.
There are various aids available to help you get started on working with odours. A number of examples are listed below.

- **Aroma-Mouse’ diffuser** (battery-powered)
- **Scented candle** (less safe)
- **Aroma jar**
- **Aroma stone, aroma brooc**
- **Scented bag**
- **Electric aroma diffuser with pad or make-up tissue**
Electric aroma stone

Aroma diffuser with air humidification, music and changing light

Heatable soft toy with scent

Scented pendant with different colours of felt for the droplets of oil

Herb shakers containing scented materials
9 FACTS ABOUT FRAGRANCE

FACT 1
The smell, colour of the light, temperature, sounds, music and acoustics, plants and the materials used all contribute to providing a fundamentally pleasant and safe feeling, which will make you want to stay somewhere longer. This information is interesting for marketing purposes. The longer someone stays in a store on average, the more likely they are to buy something.

FACT 2
Someone who awakes from a coma may perceive smells very strongly. If someone has suffered brain damage due to an accident, for example, the brain will recover from the inside out. First the vital functions are restored, such as breathing, body temperature, blood pressure and heart rate. These functions are regulated by the brainstem. The next to recover are the deep-lying central parts of the brain. The last to recover is the cerebral cortex.
FACT 3
Scent-sational studying
If you have a certain fragrance around you while you’re studying, then when you later smell that fragrance, your recall of the information will be more vivid and intense.

FACT 4
Someone who is terminally ill can also be extremely sensitive to odours. If you visit someone in that state, it’s a good idea not to eat garlic, onion, chives or other strongly aromatic foods in the days beforehand. These odours can make a dying person feel nauseous. This also applies to odours such as the smell of cigarettes on your clothing or hands or in your hair.

FACT 5
When treating people with a psychological trauma due to abuse, odour is sometimes used to recall the memory of the perpetrator or the place or situation in which the abuse occurred. Smell is thus the trigger.
This can include things like the smell of tobacco, alcohol or drugs, or the perpetrator’s aftershave or perfume. The smell of the forest, cooked food or a swimming pool can call up memories of the place or situation in which the abuse occurred. These memories are called flashbacks.

FACT 6
Scientific research is being carried out into the analysis of body odour, through the breath or stool for example, with respect to establishing certain diseases. The device used for this is called the ‘Electronic nose’.

FACT 7
Downloading fragrances via the internet may become quite normal in the future. The user must have a device containing odour components, which is controlled via a code on the relevant website. You could use this to send someone a scent via email.
APPENDIX 1

**Essential oils and their emotional properties**
Arranged alphabetically

**ANISE**
Invigorating, relaxing, stimulating, purifying, expectorant, strong aroma

Contraindication: epilepsy

**BASIL**
Purifying, calming, soothing

**BAY LAUREL**
Brightening, enlivening, calming

**BENZOIN**
Relaxing, soothing, purifying

**BERGAMOT**
Relaxing, refreshing

**CAMOMILE**
Relaxing, soothing, calming

**CAMPHOR**
Relaxing, calming

Contraindication: epilepsy

**CARDAMOM**
Relaxing, calming, soft and fresh aroma

**CEDAR**
Relaxing, soft aroma

**CHAMPACA**
Invigorating

**CINNAMON**
Calming

**CLARY SAGE**
Calming, uplifting, relaxing

Contraindication: epilepsy
CLOVE
Calming

CORIANDER
Revitalising, energising, relaxing

CYPRESS
Calming, sleep-inducing

EUCALYPTUS
Uplifting, helps to prevent drowsiness

HYSSOP
Invigorating, stimulating, sharpens the concentration

Contraindication: epilepsy, high blood pressure

GERANIUM
Relaxing, calming

JASMINE
Relaxing

JONQUIL
Soothing, relaxing

JUNIPER
Calming, strengthening, soothing

LAVENDER
Vitalising, uplifting, relaxing

LEMON
Refreshing, invigorating

LEMON BALM
Calming, uplifting

GINGER
Stimulating, invigorating

GRAPEFRUIT
Refreshing, revitalising
| Essential Oil | Characteristics |
|--------------|-----------------
| LEMONGRASS   | Refreshing     |
| LIME         | Refreshing, uplifting |
| LINDEN BLOSSOM | Extremely soothing, calming |
| MANDARIN     | Relaxing, calming, refreshing |
| MANUKA       | Refreshing, soothing |
| MARJORAM     | Calming, reassuring |
| MAY CHANG    | Relaxing, calming |
| MELISSA      | Vitalising, relaxing, refreshing |
| MYRRH        | Invigorating, vitalising |
| MYRTLE       | Brightening    |
| MUSK SEED    | Warming, invigorating |
| NARCISSUS OIL | Calming, soothing |
| NEROLI       | Calming, uplifting (suitable for people with epilepsy) |
| NIAOULI      | Very invigorating |
| NUTMEG       | Stimulating, vitalising, invigorating |
|              | Contraindication: epilepsy |
| ORANGE       | Refreshing, soothing, calming (suitable for people with epilepsy) |
| OREGANO      | Calming, soothing |
| PALMAROSA    | Relaxing       |
| PATCHOULI    | Relaxing, calming; heavy and sultry aroma |
| PEPPERMINT   | Stimulating  |
PETITGRAIN
Calming, uplifting

PINE
Refreshing

ROSE
Relaxing, calming

ROSEMARY
Vitalising, invigorating, stimulating

Contraindication: epilepsy, high blood pressure

ROSEWOOD
Refreshing

SAGE
Vitalising, invigorating

Contraindication: high blood pressure

SANDALWOOD
Calming, heavy aroma (suitable for people with epilepsy)

SASSAFRAS
Invigorating

TEA-TREE
Invigorating, strengthening

Contraindication: epilepsy
THYME
Invigorating, relaxing (you become calm, but clear)

Contraindication: high blood pressure

VANILLA
Energising

VERBENA
Soothing, refreshing

VETIVER
Relaxing, stabilising

VIOLET
Strengthening, soothing

YLANG-YLANG
Calming, relaxing, heavy aroma
APPENDIX 2

Questionnaire for initiating and implementing odour support

- Who can gain added value from the methodical use of odour in support?
- For which purpose can you use odour support?
- How do you know that someone can smell?
- Is it an individual goal, or a goal for several people?
- At which communication level should you offer the odour?
- Which odours that are already present can you make use of?
- Which essential oil would you like to use, and why?
- Are there contraindications for certain essential oils?
- How do you want to offer/disperse the fragrance?
- How can you link a utensil to the scent and make use of touch?
- How are you going to introduce the odour?
- How do you observe whether someone finds an odour pleasant or unpleasant?
- What steps are you going to follow in achieving an odour goal?
- How are you going to describe the odour support in the person’s support plan?
● When will you move on to the next goal?

● With whom must you collaborate in the person’s social environment?

● Who is responsible for maintaining the odour system?

● How will new professionals be informed about and trained in the use of odours?

● When, with whom and how will this be evaluated?
APPENDIX 3

*Individual odour profile*

Client name: 
Completion date:

- How do you know whether I can/can’t smell?

- Which odours do I like? What makes this clear to you?

- Which odours do I find unpleasant? What makes this clear to you?

- Which odours must you never use with me?

- Which odours are familiar to me from my childhood?

- For what purpose are odours being deliberately used with me?
- At which communication level should you use the odour with me?
  - Situational level
  - Signal level
  - Symbolic level

- What are the important things to bear in mind if you offer me an odour?
  - Medical:

  - Way of offering:

  - Pace:

  - Overstimulation:

  - Combination with utensil and touch:

  - Other
## APPENDIX 4

### The Anchoring Form

**Client name:**

**Completion date:**

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area/location</td>
<td></td>
</tr>
<tr>
<td>● Announcement</td>
<td></td>
</tr>
<tr>
<td>● Word/sound</td>
<td></td>
</tr>
<tr>
<td>● Gesture</td>
<td></td>
</tr>
<tr>
<td>● Object/touch</td>
<td></td>
</tr>
<tr>
<td>● Odour/flavour</td>
<td></td>
</tr>
<tr>
<td>● Other</td>
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</tbody>
</table>

| Action |   |
| Conclusion |   |
Explanation of the Anchoring Form

The Anchoring Form is an aid for those who support people with, for example, a severe intellectual impairment, deaf-blindness or dementia.

How do you carry out a certain action with the above-mentioned person?

- What are the identifiers/anchors for the person before or during that action?
- Do all support staff use the same identifiers/anchors for this person?

A person can only develop an expectation or association after recognising a situation or action. However, if a person experiences an activity as ‘something that happens to me’, then they can’t anticipate it, help with it, and learn from it.

The action order/guidance style discovered for that particular person can be optimally and uniformly recorded in the Anchoring Form. Of course, this can also be translated to the care, action or support plan.

How do you fill in the Anchoring Form?

Activity : For example ‘washing hands’

Area/location : Washbasin in own bed-sitting room

Announcement : Show person the soap pump and let them smell it, and say ‘(name) is going to wash their hands’
Guide them to the washbasin. Let them smell the soap again and say ‘(name) is going to wash their hands’

Action : Lay the person’s hand on the cold tap and turn on the tap together. Let them feel the cold water on their hand. Add soap and let them wash their own hands. Rinse well.

Conclusion : Turn off the tap again together. Show them the hand towel and let them feel it. Where necessary, help them to dry their hands properly. Hang up the hand towel on the hook together and say ‘finished washing your hands!’
REFERENCES, INTERVIEWS & SITES

REFERENCES


Smit, W., scriptie ‘Geurverwijzers’ (2011).


**INTERVIEWS**
Arends, H., communications expert, Koninklijke Kentalis, July 2014

Consumatics, Haarlem, October 2014

Dirks, M., parent, Stichting Kweeco, June 2014

Köster, E.P., Emeritus Professor in the chemical senses, May 2014

Smit, W., client counsellor at ‘De Brink’ accommodation in Vries, Koninklijke Visio, June 2014

**SITES**
www.allaboutvision.com
A website in English that aims to provide independent and reliable information relating to vision, ophthalmology and adjustments and corrections in ophthalmology.

www.alzheimer-nederland.nl
A website in Dutch with information and advice on dementia. Alzheimer Nederland advocates for better healthcare and invests in scientific research aimed at a dementia-free future.

www.bartimeus.nl
The Dutch-language website of the expert organisation Bartiméus. They aim to support visually impaired people in living their lives in accordance with their wishes. Bartiméus provides diagnostics, treatment and rehabilitation, education, accommodation, knowledge and expertise. These services are for people who are visually impaired or blind, including those who also have an intellectual, physical or other sensory impairment.
www.clarent.nl
The Dutch-language website of the Clarent agency. This organisation provides training, coaching and advice in the field of image-forming and communication coordination between a professional and someone with an intellectual or other disability. Clarent is also the publisher of the Dutch version of the book ‘Guided by scent’, which came out in March 2015.

www.dementie-winkel.nl
A Dutch-language website with an online shop offering everything necessary to create a stimulating environment for people with dementia. This unique shop makes it possible to adapt the living environment of people with dementia in a pleasant and practical way, accommodating the needs of a damaged brain as well as promoting greater knowledge and understanding of the condition.

www.doofblind.nl
A Dutch-language website with information for and about different target groups with auditory and visual impairments. It is an informative site that also offers users an opportunity to ask questions of the editors.

www.helenkeller.nl
The Dutch-language website of an advocacy organisation by and for people in the Netherlands with deaf-blindness.

www.hoorprofs.nl
A website in Dutch, set up by a group of independent auditory specialists. The website deals extensively with the different forms of hearing loss, the procedures for requesting a hearing aid, the differences between hearing aids, and all the latest developments. It also contains all sorts of useful tips.

www.kalorama.nl
The Dutch-language website for the independent organisation Kalorama, which provides care and services for people with deaf-blindness.

www.kentalis.nl
The Dutch-language website of Koninklijke Kentalis, a national organisation for people who have a hearing impairment, deafness or deaf-blindness, or have a multiple communicative disability. It provides research, diagnostics, education and educational support.
www.nationaldb.org
The English-language website of the National Center on Deaf-Blindness. The website has a digital library from which you can download literature, including recent publications.

www.nenko.nl
The Dutch-language website of the online shop Nenko, which designs and realises snoezelen, experience and time-out areas for the total care sector and supplies a wide range of materials and aids, including in the olfactory field.

www.platformemg.nl
A Dutch-language website for the promotion, connection and exchange of knowledge regarding Severe Multiple Disabilities (SMD), for parents and professionals.

www.sense.org.uk
The English-language website of the Sense organisation in England. You can download publications about deaf-blindness from the website. Sense also brings out a digital overview of their activities each year, and you can find these overviews on their website.

www.visio.org
The Dutch-language website of the Visio organisation. Visio is there for everyone who has questions about being visually impaired or blind. Visio offers information and advice, but also various types of research, supervision, rehabilitation, education and accommodation. These services are for people who are visually impaired or blind, including those who also have an intellectual, physical or other sensory impairment.

www.volatile.nl
The Dutch language website for Volatile, a supplier of high-quality essential oils in the Netherlands. They have more than 120 different essential oils in their range, which are sold through good quality pharmacies and nature and health-food shops.

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