Environmental description

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Abstract

Environmental description is the description of general, physical, personal and social space and action, where visual, auditory and other sensory information is shared with the receiver in spoken, written or sign language, either vocally, i.e. producing sounds or in another form (pointing, touching, drawing). It can be divided into the expression of basic characteristics, basic description, precise and extended description, and it can be carried out physically on the spot (close description) or far away from the target (distant description). Description can be carried out spontaneously in real time, in joint action systematically i.e. pre-prepared description or it can be recorded beforehand as a text format, or as consecutive i.e. a postponed description after the event. The target group may be one person or a group. In addition to verbal description, environmental description can be produced with various sounds, such as vocalization without words or other sources of sounds e.g. musical instruments. Interaction in a situation between the describer and the receiver may be a one-way description or a dialogue. It can further be divided into functional dialogue, reciprocal description supporting sensory perceptions, telling and pointing in front of the target, reciprocal description by drawing or through movements and the exploration of objects. In detailed descriptions the main subjects are followed by details. Description can be classified according to the size of the space that is extensive, large, in a room or nearby.

The purpose of this article is to present the possibilities and different areas of description more widely, from the point of view of visually impaired and dual sensory impaired/deafblind persons receiving environmental description. Description may be classified in various ways, for instance, in accordance with possibilities for interaction (one-way or reciprocal) or according to the spatial perception of the visually impaired person. Description methods are also classified. Drawing on the back is presented as an example of how to use the body in receiving description.

Background of description

Description has always been used for persons with visual impairment. Various professional groups use description in their work in order to clarify their actions and support their instructions: they verbalize their visual view. For instance, mobility instructors describe space and routes, IT instructors describe the computer screen, keyboard and other equipment, while physical education instructors describe body movements. Description and verbal information are often needed and can be useful even for sighted people.

Description is included in the curriculum of various professional education fields such as in sign language interpreter education, programmes for 'interpretation for various client groups' and in audio describer education. A 64-hour audio describer course was first introduced in Finland in 2005 by the Cultural Services for the Visually Impaired with the support of the Ministry of Education. By 2011, three groups had already received an audio describer education (Turunen 2005, www.kulttuuripalvelu.fi).

Traditionally, description for people with visual impairment includes audio description of visual arts, movies and theatre. This method has made culture available for people with visual impairment. Interest towards description has been increasing, due, for instance, to descriptions (narration tracks) inserted in movies (DVD). In addition, further university studies of audio description have been made of how to describe movies using sound tracks. However, there are no studies on the wider, multimodal use of the senses as part of receiving description.

In sign language interpretation for people with dual sensory impairment or deafblindness, environmental description is one of the areas of interpretation. It supports language interpretation for the deafblind people (for instance signing in free space, tactile i.e. hands-on signing, repeating speech) and moving (guiding a person), or it can be a separate action, such as the description of a target. Thus, in the 1980's, description was already included in sign language interpreter education.

What is description?

What is description? Is it just the verbalization of visual information? And how does the describer choose how and what to describe? If the receiver has a hearing impairment in addition to a visual impairment, the concept of description becomes wider, thus also including the description of auditory information.

The overall aim of multiple environmental descriptions using various senses of deafblind people give them access to information. The aim of the study is to reflect description widely from the points of view of the describer and receiver. Thus, for instance, possibilities to use various senses (sense of touch, movement) during description must be included, as well as how personal sensory perceptions can be a basis for description. If the person reacts to a change in the surroundings, such as a smell or a vibration, the describer can then describe the action which caused this environmental change.

In the field of deafblindness and dual sensory impairment, the description is a wide description of general, physical, personal and social space and action, where visual (sight), auditory (hearing) and other sensory information is shared with the receiver either by language (spoken, written, sign language), vocally or in another agreed form (pointing, touch, drawing, movement, etc.) (Lahtinen 2004, Lahtinen & Palmer 1996, 1997; Raanes 2004). Information shared by touching the other person's body can be used as a support to language description or independently.

During description, there are at least two people present, one who produces and another one (or a group) who is the receiver. Description can be carried out in real time and close to the target or it can be recorded or written beforehand. In a theatre description, the describer may physically be elsewhere, even though the description is being listened to in real time through headphones. Description may also be carried out consecutively after the event. In this case, though it is not possible to carry out the description in real time during the event, the information still needs to be understood. More generally, even haptices, i.e. touch messages, and their haptemes, i.e. the grammar of touch, are closely related to description. Lahtinen (2008) describes extensively how various things can be conveyed and described on the body by touch. The study is based on practical observations carried out over 20 years, while working with both deafblind and blind persons with hearing.

Environmental description - why and for whom?

Environmental description supports the multimodal sensory perception of a person with visual impairment. With the help of description, it is possible to support visual information for partially sighted and blind persons, auditory information for hearing impaired persons (movies with visual text description),

as well as both visual and auditory information for deafblind persons. These can be connected with exploring targets haptically, such as feeling various objects (statues, paintings etc.). Receivers of environmental description can be deafblind, dual sensory impaired, hearing impaired and visually impaired children, youth and adults. In addition, the elderly and people of different ages with learning problems will also benefit from this type of instructions and descriptions.

Extension of description

The extension of description may vary depending on the extent of the target's contents. It can be naming a target, using one word, or an extended description. Lahtinen, Palmer and Lahtinen (2010: 22) divide description into four entities. Description of basic characteristics is carried out almost by everybody on a daily basis, for example when you name a target and say something about it. Basic description includes the expression of basic information on the target. A more detailed description means a more precise description of the target. An extended description can even comprise of information on the target that is not immediately visible, such as the background of an artist, a family history or events during different eras. Description can vary a lot with respect to time. When preparing a description, it is important to consider the extension of the verbal description situations that can be successfully received by the receivers.

Areas of description

Description can be divided into different areas. In Figure 1, description is divided according to language and methods. Language description includes description by spoken language, sign language and written text. Descriptions by spoken and sign language differ in that language structures work in different ways. Even though the content of the description is the same, the expression via spoken/written language may be longer due to their linear structure. When naming in sign language, the places and relations are also embedded, so that they don't need to be indicated separately. Vocal description includes description produced by different sounds. The vocal environment is mainly an amendment used when describing the atmosphere, like the humming of the wind when describing visual arts, the sound of steps etc.

The concept of haptics related to exploring the target includes the sense of touch and exploring the environment, where skin, muscles and joints are part of the data collection system. There is no specific sense for that. Then a reciprocal interaction is experienced in contact with the environment (Gibson 1966, 1983). In exploring the target model, haptic information is used, when the explorer can, for instance, distinguish size differences, forms, surface qualities and materials

through his hands (Klatzky & Lederman 1993: 603-604). Haptics, as a part of description, refers either to the receiver's exploration of targets by himself or together with the describer, when the person's perception is combined with his touch and movement information.

To support the description, miniatures may be constructed if the exploration of the target by hand is almost impossible, such as in the case of large buildings, Eiffel Tower. There are recent technical solutions that, with technical support, enable the conveying description. For instance, when moving, you can receive information related to your own whereabouts through a mobile phone (place names, route instructions).

Drawing on the back and body has given new and different possibilities to experience, for instance, arts. Targets are drawn on the person's back (paintings, drawings, pictures). A large surface, the back allows for the description of even big targets compared with the small size of a palm of a hand (Lahtinen et. al 2010).

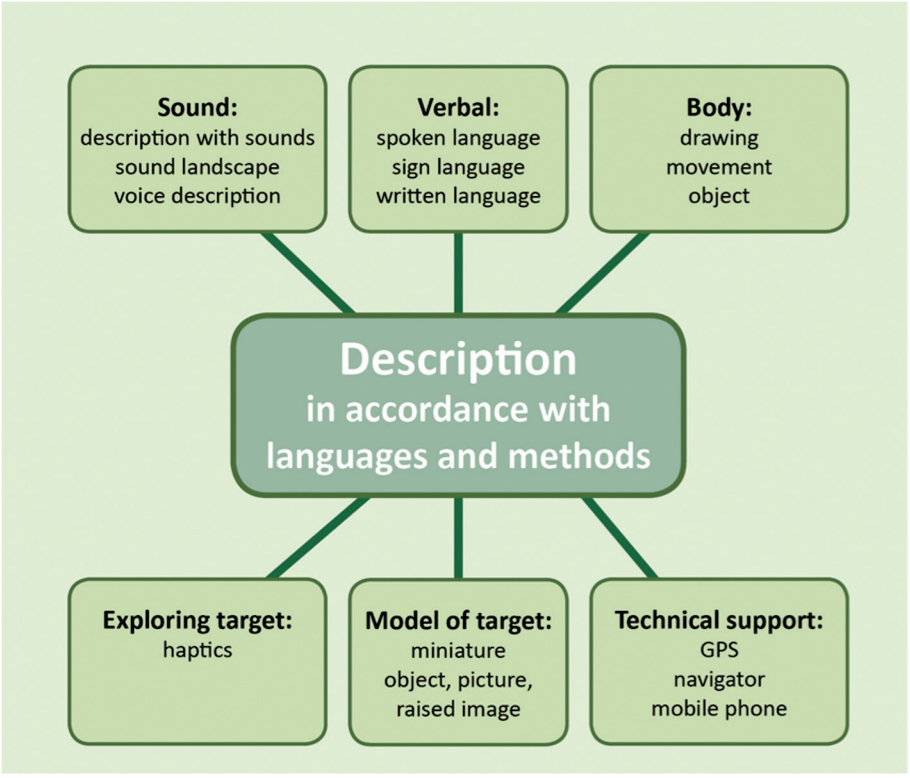


Figure 1. Description according to languages and methods (Lahtinen et al. 2010: 43).

One-way or interactive description?

Description can also be examined as an interactive process (Figure 2). When a describer or an audio describer describes a target, e.g. a theatre play (narrated in real time with technical equipment) or as a pre-recorded part of a movie, then it is a question of a verbal, one-way description. In that case, the receivers cannot influence the situation, for instance, by asking more precise questions. When the receiver is an active person who can ask questions and act, the description becomes interactive. A functional description gives the receiver an opportunity to move and make the described movement with his own body. Teaching physical exercises is an example of active listening to a description while carrying out a certain performance. The describer may also connect his own body movement into a description and let the receiver feel the movements.

There are various possibilities in finding the target in description situations: it can be found with the help of verbal clues, sounds (e.g. audible beacon) or it can be pointed at with the leading hand. Then the describer will physically lead the hand of the receiver onto the target (tracking). These physical methods are influenced by the receiver's wishes regarding the ways of proceeding, the acceptance of various methods and the size of the receiver group.

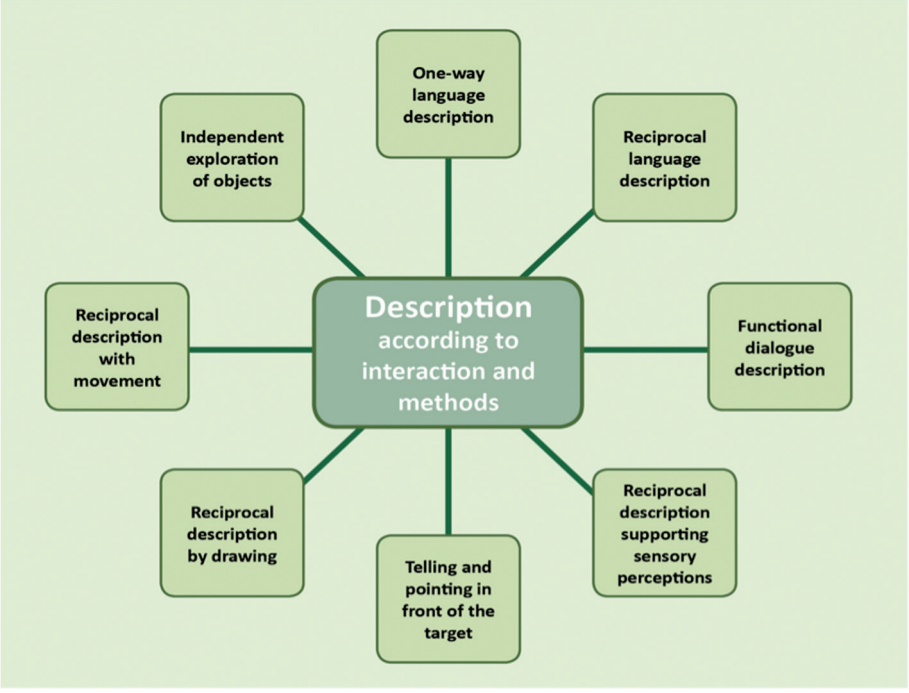


Figure 2. Interaction and methods of description (Lahtinen et al. 2010: 44).

While working with people with visual impairment, it is good to know about their spatial orientation and how different senses are used on the basis of mobility (Törrönen & Onnela 1999). A basic element for the independent moving of people with visual impairment is their awareness of their own position in the space, how to get there and how to leave it. Perceiving space is a process that demands thinking and logic. For a hearing person with visual impairment, the sounds in space tell and give clues on, for instance, the size of the room, materials, activities and distances (Hirn et al. 2009).

Figure 3 shows how the space can be divided according to its width and distances. A description of a general wide space means describing a space without borders. When standing on the top of a hill, we have a 360-degree view around us and we can see far away, whereas an extensive space has frames, there are certain structures around, such as, for example, in an art exhibition hall. When description is carried out in a room, it is possible to name the walls and contours of the space. When the receiver is in a certain location within the space, for instance sitting on a bench, there is a so-called near space/personal space around him. He can feel and explore with his hands, feet and body. The social space around him includes other people and their actions and changes of actions. Details, actions and deviations can be picked out from the space to be described (Lahtinen et al. 2005).

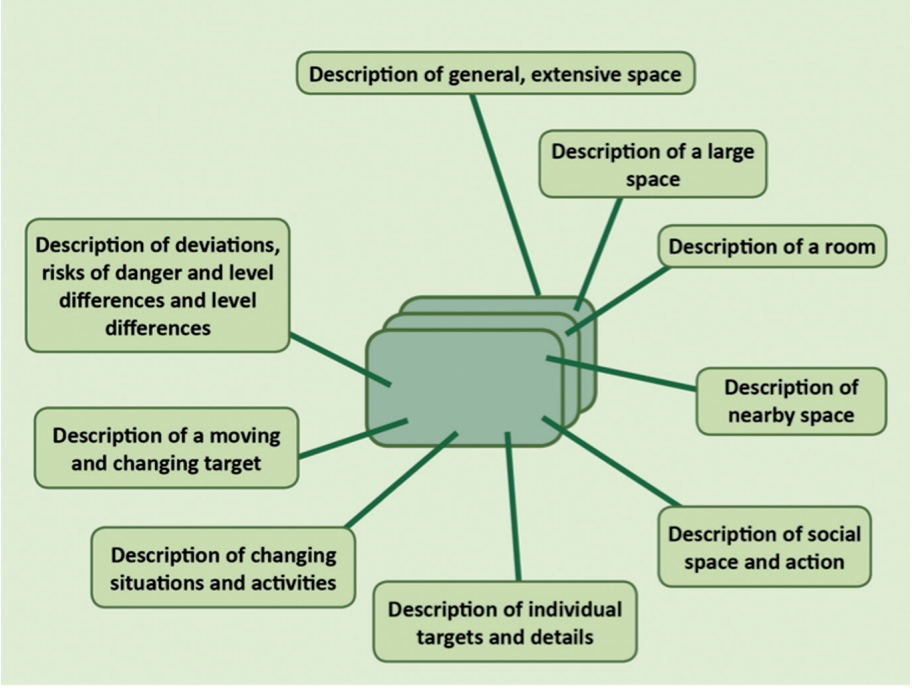
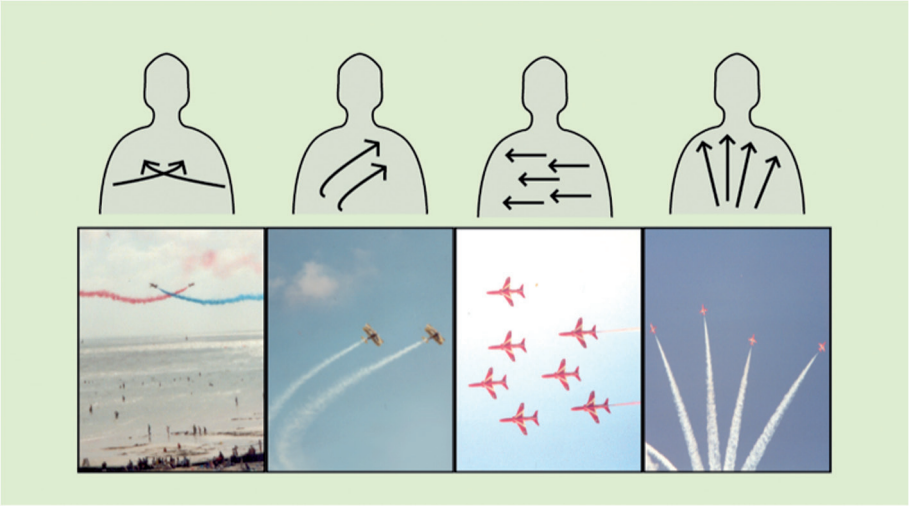


Figure 3. From wide description into details (Lahtinen et al. 2010: 49).

Using the back as one possibility for description

An interesting method for drawing and describing targets is the use of the receiver's back. Studies are being carried out on how many different things can be described on the back. The example in picture 1 shows how interests, such as rapid and changing movements of airplanes during an air show can be indicated simply by drawing with the index finger. Then the back works as a scene, the flying area of the airplanes. Drawing is most often done on the upper part of the back. By drawing, the flying routes, the speed of the movement (by adjusting the speed of the airplanes) and the number of the planes (by drawing with both hands - one, two or more) can be described. The receiver will even perceive the forms of the flight paths, directions (from left to right, right to left, downwards, upwards), changes in directions (same direction, different directions) and sizes. Those who use drawing on the back usually agree on the method beforehand.

Picture 1 is an example of visual flying routes, describing directions on the back (Lahtinen et al. 2010: 131).



Picture 1. Ways of describing flying routes on the back of a person.

Future reflections

The development of audio describing will give people with visual impairment totally new possibilities for similar services of accessing visual arts through description. However, just as the availability of description and audio describers is still in its initial phase, so the availability of accessible services for persons with visual impairment still needs to be fostered by society at large.

In the future, interesting aims of description studies include, for instance, how two and three dimensional targets or pictures can be drawn on the body,

how shared movements are produced and interpreted by another person and what kind of grammatical structures are connected with these.

Accordingly, description is more than an output expressed by spoken or written language. When it comes to targets to be described, other methods can be used than traditional cultural activities. In principle, any phenomenon may be found interesting by a person with visual impairment - even Jupiter and its many moons.

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