Colour and Fashion: Evolution of the Mobility Cane
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A review of the history of the long cane and its evolution into a mobility aid for the 21st Century. The long cane maintains its primary function as a tool for people with vision impairment to move around the environment safely and efficiently. However, the long cane can also be customised to suit personal needs and preferences, including the choice of colour.

Early days

The earliest evidence of a person using a cane, which we now recognise as a long mobility cane, can be found in biblical times when a shepherd’s staff was used by men who were blind to help them avoid obstacles on their path of travel. The cane, which was made from either bamboo or wood, was almost of body length. Interestingly, the first long cane was not white in colour. For centuries, the cane was used merely as a tool for travel. It was not until the twentieth century that the mobility cane was promoted for use by people who were blind as well as a symbol of blindness to others.

When soldiers, blinded after WW1, required rehabilitation, they used a white mobility cane. An Englishman, who was blind, and a French philanthropy, both claim to have been the originators of the white, long cane. In England, James Biggs, a photographer from Bristol, claimed to have invented the white cane in 1921 (RNIB, n.d). After losing his sight in an accident and feeling threatened by the volume of traffic around his home, Biggs decided, apparently, to paint his black walking stick white in order to be more visible to motorists. In the USA, in 1930, the Lion’s Club began a national program promoting the use of white canes for people who were blind, after a club member saw a blind man attempting to cross a busy street using a black cane (Lions Club International, 2009).

In France, in 1931, Guilly d’Herbemont launched a national white cane movement for people who were blind which had the support of the police. This campaign was reported in British newspapers leading to a similar scheme being sponsored by Rotary Clubs throughout the UK. The BBC suggested in a radio broadcast, that all blind people should be provided with a white cane that would become universally recognised as a symbol of blindness or vision impairment. In 1932 the National Institute for the Blind commenced selling white mobility canes (Strong, 2009). The white cane became a symbol of blindness and was held in both a diagonal and fixed position as an identification tool until the end of WW2.

After the war, large numbers of newly blinded soldiers returned to the USA. Dr Richard Hoover saw the need for their rehabilitation and developed the “long cane”
or “Hoover” method of cane travel (Strong, 2009).

**International arena**

Thanks to Hoover, the white cane returned to its original role as a tool to detect objects on the path of travel and to preview surface changes, but maintained the symbolic role as an identification of blindness. Hoover also devised a range of techniques to be taught with the cane for “safe foot travel” (Hoover, 1962). The profession of Orientation and Mobility (O&M) had commenced its evolution. In 1960, the Boston College became the first university to offer a course in O&M (Wiener & Sifferman, 1997).

The “White Cane” continued its journey into the international arena and became a symbol of vision impairment. It remains the most efficient and effective mobility aid used by the majority of people with vision impairment till this day (Nicholas, 1992). It has continued to develop and evolve, however. For many people with vision impairment, the cane provided safety through high visibility as well as identification (Tapp, 1981). Cane specifications were quite specific at first, for example, the aluminum cane was covered with 15cm of white adhesive tape. By 1976 the specifications were changed to 91.44 cm of white reflective tape and a red strip of 15 cm at the bottom of the shaft to provide increased visibility (Blasch, 1976; Franck, 1990). In the UK, to provide better identification for the person who was deafblind, two red reflective strips on the bottom of the cane were introduced (Lions Club International, 2009).

**Evolution of the cane**

When collapsible canes were introduced in the sixties they caused controversy among professionals at the time. We all know the stories of the folding cane being too heavy, too easily bent and not “sounding right” when detecting objects or variable surfaces. Different materials were being used in manufacturing the shafts from those being used to manufacture rigid canes, and this made it difficult for researchers to determine whether or not the collapsible cane or the rigid cane was preferable for identifying surfaces and tactile information (Drouillard, 1967, cited in Rogers & Emerson, 2005; Walraven, 1982, cited in Rogers & Emerson, 2005).

During the 1970s, the National Federation of the Blind (NFB) began a campaign to promote the use of rigid canes and introduced a fibreglass “straight” cane, that is known today as the NFB straight cane which is offered free of charge to cane users (National Federation of the Blind, 2009). Rigid canes were not portable and harder to store in comparison with collapsible canes, but many members of the NFB, other cane users and instructors believed that the lightness and greater length of the rigid cane allowed for better mobility and safety. People who were pro-collapsible cane also recognised the benefits of the rigid cane, but for them the convenience of being able to store the cane easily, when on buses for instance, was of greater benefit. Many professionals still believe that “use of a collapsible cane encourages avoidance of facing the real issues of blindness” (Willoughby & Duffy, 1989, p. 158). Guide Dogs NSW/ACT issues within the range of 800 to 900 folding long mobility canes a year opposed to
approximately 10 rigid canes (Guide Dogs NSW/ACT, 2005-8).

Research investigating the most desirable characteristics of the cane and its ability to conduct tactile information continued. Researchers began to look closely at the composition of the shafts’ material and how these impacted on the transmission of tactile feedback (Rogers & Emerson, 2005; Schenkman, 1986; Schultz, 1985, cited in Rogers & Emerson, 2005). Many studies are inconclusive. The most comprehensive finding according to Rogers and Emerson (2005) was that less flexible shafts afforded better discrimination of the ground surface. Over time, the collapsible cane has become the most popular cane regardless of professional opinion. As Farmer and Smith (1997) stated: “Travellers with vision impairments often express a strong preference” (p. 223). This assertion of strong preference in cane type by the user is supported in research by Ambrose-Zaken (2005). The experienced traveller might use more than one type of cane with different tips and these are determined by the environments in which the person travels.

In the late 1980s, the constant contact technique was introduced where the tip remains on the ground while arcing the cane (Fisk, 1986). This technique was seen as an improvement on the two point touch technique as it provided increased tactile feedback, resulting in the enhanced detection of small differences on the ground surface and provided an overall improved surface preview. This technique is particularly useful to people with vision impairment when travelling in unfamiliar environments. The constant contact technique was acknowledged by professionals as superior to the two point touch technique for providing surface preview (Blasch, LaGrow, & Del’Aune, 1996).

The original specification of the pencil tip was also changing to a shaped tip so that it would move easily over all surfaces and avoid sticking, but still provide tactual feedback (La Grow, Kjeldstad, & Lewandowski, 1988). With the constant contact technique, the round tip (rural tip) was developed and became popular. More cane tips were introduced due to the increasing need for long cane modification and increased adaptive mobility aids such as pre-canes devices (Farmer & Smith, 1997).

The rapid evolution of cane tips, again, caused controversy among professionals. However, long cane users overwhelmingly preferred and adopted the curved and rounded tips. Today there are at least 10 different types of tips from which to choose such as fixed tips like the marshmallow, tear drop, rural, snowball, metal dish, and other less well known tips such as the bundu basher (Jacobson, 1993). More recent developments include roller tips in the shape of a ball, rubber wheel, mushroom and jumbo ball. In recent years, especially in NSW/ACT, Australia, the roller jumbo tips are the most popular tips used by long cane clients (Guide Dogs NSW/ACT, 2007-8).

Long cane grips have also evolved. The hooked handle was the precursor to foam grips, head-shrunk plastic, rubber and leather golf grips with use being influenced by durability and personal preferences.

With the development of technology the first laser cane was introduced in 1966 by J. M. Benjamin (Wiener & Sifferman, 1997). Proceeding the laser cane were several attempts to manufacture a long cane with additional features. However, nothing
proved to be as popular as the long mobility cane which, with a few improvements, remains the same as it was in the 50s and 60s (Hoover, 1962).

Nowadays there is an immense choice of canes constructed from aluminum, graphite (carbon fiber), fiber-reinforced plastic and stainless steel. Telescopic canes are also available. The choice of brands increases and provides both the user and the O&M instructor many options. Knowing the characteristic of the cane and the needs of the user can lead to an informed decision regarding the type of cane to be used or constructed (Ambrose-Zaken, 2005).

The cane as identification of vision impairment and blindness

Since WWI, the long mobility cane has remained white in colour. Is it now time for change? Is a white cane a symbol of blindness and vision impairment? Does the cane need to be white to indicate vision impairment? What does the white cane represent? For many blind people the long cane is a symbol of independence, equality and blindness. The World Blind Union (WBU) Policy Paper regarding the White Cane indicates “The white cane has become a symbol of freedom, independence, and confidence. (...) Also the white cane is a symbol of blindness and independence. The blind individual that walks with assurance with his/her white cane is comfortable with blindness” (p. 2). The WBU are of the opinion that there is a tendency to treat the long cane as nothing more than a mobility tool (World Blind Union Policy Paper, 2003). The WBU considers the white mobility cane value to be much greater than just providing the freedom to move throughout the environment.

In many States in the US, the white cane user is protected by law and cars will stop for the pedestrian who uses a white cane (World Blind Union Policy Paper, 2003).

The blind character portrayed by actor Al Pacino in the film “Scent of a Woman” inspired manufacturer AmbuTech to develop the black mobility cane. In the mid eighties Bevria, an Australian manufacturer, followed this trend and produced their first black cane at a personal request. Bevria also made a gold coloured cane for a person with vision impairment from Melbourne (R. Ash, Bevria, personal communication, February 9, 2009). In the nineties, several requests were made from Australian O&M instructors to produce coloured kiddy-canes to make the long cane more appealing to young children (R. Ash, Bevria, personal communication, February 9, 2009). Instructors in NSW/ACT are observing an increased demand for coloured mobility canes and not only by young cane users. In the last financial year 2007-8, Guide Dogs NSW/ACT issued 882 long canes of which 104 were coloured (Guide Dogs NSW/ACT, 2007-8).

Discussion

The evolution of the mobility cane demands the consideration of a range of issues such as the effects of cane colour on user and public perception, and the purpose(s) of the mobility cane. Primarily the cane is designed to detect obstacles on the path of travel, level changes, different surfaces and act as a foot-placement preview (Blasch, La Grow, & DeI’Aune, 1996).

The profession of O&M needs to revisit such fundamental questions as:

(a) Is the mobility cane already an identification of blindness itself? (b) Does the
mobility cane need to be white? (c) Is it more important for the cane to detect drop-offs and be visible in poor light conditions?

High visibility is incredibly important, especially in rural areas, where there is often limited street lighting. Light-coloured reflecting materials alert drivers at night and in dim weather conditions. Franck (1990) found that the use of a proper coating material (such as Reflexive AP 1000M Reflective Tape) on the cane could increase visibility distances significantly. The cane users benefit from reflective canes in many everyday situations such as road crossings. However today, many cane manufacturers offer canes in white non-reflective coating, for example, telescopic canes from NFB or rigid support canes from Ambutech.

The colour of the long mobility cane is of secondary importance to the foot-placement preview and visibility. While consideration needs to be given to the colour of the long mobility cane, the cane does not need to be white to be effective, as a cane provides protection regardless of its colour when used properly. Is it right, however, to treat the long cane as a fashion accessory and match the colour of the cane with the person’s apparel on any particular day?

Today’s society is championing human rights and equal opportunities for all people. People choose the colour of personal items such as clothing, furniture or vehicles, so it might follow that O&M professionals are required to accept a person’s colour choice of long mobility cane. The demand for coloured long mobility canes in Australia demonstrate that colour preference has the same importance for everyone even if colour is a surrogate concept for people who are congenitally blind. Knowledge of colour arises from first-hand experience but the visual imagery concept is based on visual and non-visual spatial representations (Connolly, Gleitman, & Thompson-Schill, 2007; Farah, 1988; Shepard & Cooper, 2006).

Nowadays, walking cane design trends in ageing societies around the world have become increasingly varied as consumers look for ways to add more style and class to their canes. There are many companies and organisations with online catalogues around the globe which customise the walking cane by applying different patterns and colours to them as well as equipping them with additional features such as a light, changeable handles and tips (Fashionable Canes & Walking Sticks, 2009). It appears that the ordinary walking stick is becoming a ‘funky’ mobility aid. An Australian company “Switch Sticks” recently won the Australian Business Award for Product Innovation (Swanky Walking Sticks, 2009). It is interesting to discover that Switch Sticks competed for the title with 1500 other companies. The owner of this small, home-based company stated “I wanted to brighten up my aunt’s rehabilitation process and provide her with something more exciting and funky” (Campanella, 2008).

Coloured or patterned canes are definitely a personal statement. There is, for example, a website that provides tips to trend watchers with vision impairment, namely “The International Fashionable Eye.” This site was created by a young Australian man with vision impairment “who knows how important it is for people in today’s society to look good” (Fashionable Eye, 2009).

On the other hand, many people with low vision are requesting white identification and support canes to alert others in the
community that they are vision impaired (Guide Dogs NSW/ACT, 2007-8). People with low vision appear to feel more confident in their travel abilities if they use a white cane. Societies are increasingly busier, more crowded and have become, perhaps, less sensitive to other people’s needs. As roads become more congested and cars quieter, people who use identification canes feel safer and more confident, particularly about road crossings. It is common practice among professionals to advise the use of a white identification cane to a client with low vision (OMAA, 2009). Conversely, it seems that some people with severe vision impairment like to personalise their canes by choosing a coloured one and are of the opinion that the cane is identification in itself (GDs NSW/ACT instructors and clients, personal communication, April 3, 2009).

The popularity of the coloured cane is mostly observed in wealthier societies such as Australia (R. Ash, Bevria, personal communication, February 9, 2009). In many parts of the world, due to socio-economic reasons, daily survival takes priority over issues of fashion. The profession of O&M exists and is now taught in most countries, however many countries still lack access to a supply of long canes with the variety of cane tips and colours, as well as the ability to provide them free of charge. Perhaps as a result, people who are vision impaired do not replace their canes as often as is the case in Australia (F. Gentle, ICEVI, personal communication, June 2, 2009). Accessorising outfits is the privilege of the wealthy and “fashion” is often associated with luxury. This fact, however, does not alter the question “does the mobility cane, regardless of its colour, provide sufficient identification of a person with vision impairment?” There is an overwhelming trend to use coloured canes by long cane users in NSW/ACT (Guide Dogs NSW/ACT, 2007-8). This might indicate that long cane users are of the opinion that the long cane does not have to be white to symbolise vision impairment and blindness.

The O&M profession needs to consider the above issues in relation to the long mobility cane faced in societies today, as many of the professionals and organisations have not warmed to the idea of bright coloured canes as yet.

As an O&M instructor in NSW Australia, I am of the belief that it is the clients/consumer’s preferences and opinions that should be prioritised and valued. In the past, it was often practitioners and researchers who were divided in their opinions about what constitutes the best cane type, tip and colour. Most of the techniques and aids used in O&M have evolved from functional applications and clinical experiences of the cane users. People with vision impairment who use mobility aids drive the O&M profession and encourage research and change. O&M professionals are required to listen to long cane users and provide the necessary support and endeavour to make aids such as long mobility canes available to everyone who needs them.

References


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