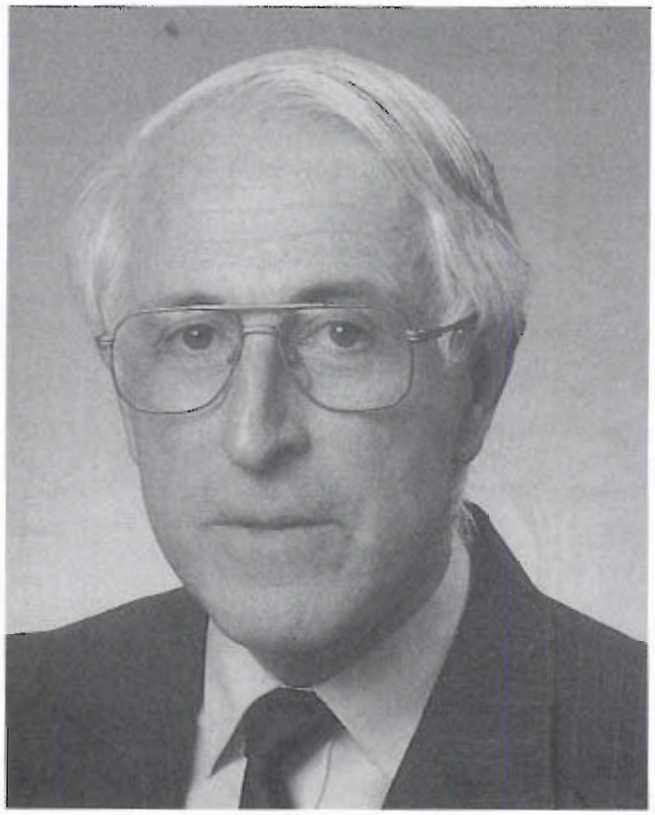
THE JOURNAL of SHHH AUSTRALIA INC.
Self Help for Hard of Hearing People

hearing matters

February 2008

SHHH Australia Inc
1334 Pacific Highway
Turramurra NSW



The Bionic Ear Man

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In this issue...

FEATURES

The Bionic Ear Man 4

OTHER FEATURES

President's Message 3
Jenny Rosen 8
Impact of Hearing Loss 9
History of the Hearing Aid Bank 11
National Relay Service 12
More on captioned theatre 13
The SHHH Digest 14
The SHHH Notice Board 15
The Back Page 16

Cover: Professor Graeme Clark

DEADLINE FOR NEXT ISSUE: 5th April 2008

Remember, hearing help is available wherever you see this *symbol.*

SHHH Mission

SHHH Australia Inc. is a voluntary organisation giving services and support to hearing impaired people throughout Australia who communicate orally.

SHHH Australia

- Operates two Hearing Information Centres
- Produces **hearing matters** as a quarterly newsletter for members and subscribers
- Supports and encourages local SHHH Groups
- Maintains an extensive information service with a series of Information Sheets on aspects of hearing loss and its management
- Provides speakers as part of its extensive Outreach Program
- Administers a Hearing Aid Bank in conjunction with the Audiology Department of Macquarie University in Sydney and other participating providers
- Acts as an advocate to government, industry and other organisations to make them more aware of issues concerning hearing loss

Rural Hearing and Health Expos

The Deafness Forum is holding 2 Rural Hearing and Health Expos at Ballarat and Bathurst.

These events will allow country people to seek information, find out the latest trends in health and hearing care, and the newest research and products. It will be a place the public can obtain answers to questions regarding specific health and hearing issues and discover the best means of dealing with specific health issues. This event will feature free entry, free hearing screening, free health checks, demonstrations of the latest technology to help the Deaf and hearing impaired, keynote speakers in a range of health related fields and lucky door prizes.

Hearing loops and real time captioning will be provided. The venue is wheelchair accessible.

The Rural Hearing and Health Expo is a fantastic opportunity for the rural community whose needs are often ignored, and a great opportunity for disability and health professionals, carers and the general public to learn about new developments in the hearing impaired sector.

The Rural Hearing and Health Expo will run from 10.00am to 4.30pm at the Ballarat Mining Exchange on 7 - 8 February and at the Bathurst Memorial Entertainment Centre on 14 and 15 February 2008. Entry is free and refreshments will be available.

Thank You Hornsby Shire Council

SHHH acknowledges the support of Hornsby Shire Council in funding this issue of Hearing Matters.

PRESIDENT'S MESSAGE

The work of Professor Graeme Clark is undoubtedly one of the most significant achievements in medical research in Australian history. It has resulted in a bright future for those of us who are burdened with a hearing impairment. Modern hearing aids are good and getting better. But at the point where hearing aids begin to fail us, the cochlear implant is ready to take over.

If you are struggling with your hearing loss, I would urge you to consider the 2 qualities that Clark had in abundance – determination and creativity. If we are determined to do something about our hearing loss, then we will. Clark was met with huge obstacles – lack of funding, technical difficulties and the derision of most of the medical world. Yet his determination, based on his faith, enabled him to persist with the research at enormous risk to his personal reputation. We need to show a bit of determination too. This may mean wearing our hearing aids a bit more, or even getting assessed for a cochlear implant. We don't need to be as creative as Clark. However, we need to consider how to best utilise the resources available to us – such as Assistive listening devices, the T-switch, National Relay Service, captioning, speech reading and more.

How can you find out more? Easy! Keep reading, call our information centres, join the Google group or check out our website. And please tell your friends!

Richard Brading
President SHHH Australia Inc.

SHHH AUSTRALIA INC

NOTICE OF ANNUAL GENERAL MEETING
5th April 2008

Notice is hereby given that the 22nd Annual General Meeting of SHHH Australia Incorporated will be held in the Ballroom at Hillview Community Health Centre at 1334 Pacific Highway, Turramurra at 2pm on Saturday April 5th.

Parking is available on the grounds with entrance now only at the rear of the buildings off Boyd Street and Kissing Point Road.

Special Guest Speaker: Sharan Westcott, Clinical Manager, Sydney Cochlear Implant Centre; Board Member of Deafness Forum.

Business

1. To approve the Minutes of the Twenty First Annual General Meeting.
2. To receive and consider the report of the Board of Management of the Association for the year to 31 December 2007 including the "Annual Statement".
3. To elect office-bearers of the association and ordinary members of the Board of Management.
4. To transact any other business to be transacted at an Annual General Meeting.

An invitation is extended to all members to attend.
Refreshments will be served.

Election of office bearers and ordinary members of the Board of Management

Office bearers positions are – president, vice-president, treasurer and secretary.

There are, in addition up to five positions of ordinary members.

Nominations of candidates for election as office bearers of the association or as ordinary members of the committee: -

1. Shall be made in writing, signed by two members of the association
2. and accompanied by the written consent of the candidate.
3. Shall be delivered to the secretary of the association not less than 7 days before the date fixed for the meeting.

Proxies

1. Each member is entitled to appoint another member as a proxy by notice given to the secretary not later than 24 hours before the time of the meeting.
2. No member may hold more than five proxies.
3. A proxy may direct the member to vote for or against particular motions.
4. Proxy forms are available at the office of the association.

We encourage you to participate in the management of SHHH Australia Inc. If you are interested in a Board position, or would like to join our enthusiastic volunteers, please contact Pauline Reidy at the SHHH office for more information.

The Bionic Ear Man

Photo: Professor Graeme Clark

Professor Graeme Clark AC, popularly known as the bionic ear man, is the subject of the 48th Boyer Lectures on ABC Radio National. This article includes extracts from the lectures, which are available in full from the ABC Radio website under "Boyer Lectures".

Photo: Graeme M Clark AC FAA FTSE FRS FAAS FAIMBE MB, BS, MS, PhD (Sydney), FRCS (Edinburgh), FRCS (England), FRACS Hon. MD (Hanover), Hon. MD (Sydney), Hon. DSc (Wollongong), Hon. DEng (CYC Taiwan), Hon. LLD (Monash), Hon. FAudSA, Hon. FRCS (England)
Founder and Director Emeritus, The Bionic Ear Institute
Laureate Professor Emeritus, The University of Melbourne
Professor, The University of Wollongong
The Centre for Clinical Neuroscience and Neurological Research, St. Vincent's Hospital

In our bodies we have special cells which allow us to hear, see, touch, taste, smell and sense body position and movement. Each sense helps us experience the world in different ways. Helen Keller, who was blind and deaf at a very young age, said, "Blindness cuts you off from things, and deafness from people." For every person, the relative importance of the senses varies. As communication was very important to Helen Keller, she found deafness a greater handicap than blindness. Our sense organs convert sound, vision, touch, smell, taste position and movement, into electrical signals, and these signals produce coded messages that pass along nerve pathways to the brain. In the brain, for reasons that we don't fully understand, the electrical codes result in conscious experiences.

The brain is a remarkable structure for processing sensory information. It has been calculated that there are some 100 thousand million nerve cells in the adult human brain – roughly the same as the number of stars in the Milky Way. Each brain cell is connected to between ten and 10,000 other brain cells, so therefore, there are about 100 million million connections in the brain! It has also been estimated that the number of possible activation sites of the brain, is greater than the number of atoms in the universe. So there is an amazing number of possibilities in the brain for sensing and processing information.

Our conscious experiences depend not only on the vast network of brain cells and their connections, but also on their interaction with the complex chemistry of the cell. This is especially important for the preservation of memories. In fact the human brain is possibly the most complex structure in the universe.

It has been argued, on the other hand, that our conscious experiences are nothing more than electrical events in the brain. Our brain has been likened to a supercomputer, where all thoughts are ultimately the result of these electrical events. In this scenario, we would have no free will, as every response of our senses would be determined for us by the pattern of electrical activity. This view that our conscious experiences can be understood simply as the brain functioning in a mechanistic way like a computer, has a number of flaws. First, the responses of the brain are different from those of computers as we know them. In the brain, information passes from one cell to the next accompanied by apparently random activity. Just how this random activity affects perception is not clear. The brain has an amazing capacity to process information in parallel, a function not well seen in present computers. Parents trying to get three children to school is a good example, as they are managing different requests almost simultaneously. We are not just automatons.

Through our consciousness we can reflect internally on the sensory experiences we have had, and there is continuity from one day to the next. We wake up and realise we are in the same bedroom we were in before we went to sleep, and we remember we are the same person. All our stored memories make us who we are. And all our internal conscious experiences can be made known to others, through a shared language. Our

feelings, those of love, hate, pride and loyalty, for example, cannot easily be explained as simply the workings of electrical current and chemistry in the brain. In fact, it is impossible to prove they are merely electrical currents.

Hearing depends on both the sense organ in the ear, the organ of Corti, and neural processing in the brain. The ear itself is quite remarkable and the range of sound intensities that it can comfortably detect is one trillion to one. The softest sound that we can hear moves the eardrum 1 billionth of one millimetre, or one-twentieth the size of a water molecule.

Sound is directed down the ear canal to the eardrum, and then via the tiny middle ear bones (the smallest bones in the body) to the inner ear, which houses the sensory organ of hearing. The organ rests on a membrane that vibrates selectively to different sound frequencies, and so acts as a sound filter, which sorts sound frequencies into groups. High frequencies produce maximal vibrations at the beginning of the coiled inner ear, and low frequencies do the same at the other end.

Sound may also reach the inner ear by routes other than the middle ear. If a sound is loud enough, the whole skull vibrates, and the vibrations produce direct stimulation of the inner ear. Furthermore, deaf children in particular, can pick up low frequency vibrations with their hands and feet, and this is useful for teaching them the rhythm of speech. Elephants are even better. Scientists have discovered that African elephants' feet are so sensitive, they can detect vibrations in the ground, and tell whether alarm calls are coming at some distance are from a familiar or unfamiliar herd.

The organ of hearing in your inner ear acts in a similar way to how a pick-up needle on a record player converts vibrations from the record into electrical voltages. The hairs on the inner ear cells move to and fro in a gelatinous material, to produce the electrical voltages. These voltages initiate patterns of auditory nerve responses that are transmitted to the brain, where they are interpreted as speech and other sounds.

Your brain uses two codes to interpret the frequency or pitch of sound: one based on the timing of brain cell responses, and the other on where the brain is stimulated. According to the timing code, we recognise the pitch of a sound when a group of brain cells fire in time with the soundwaves. According to the place code, the auditory brain centres are organised spatially like a piano keyboard. If one area is stimulated, then a low pitch will be perceived and a more distant area will produce a high pitch. But neuroscientists still have very little understanding of how the brain converts the patterns of electrical responses, with the timing and place codes, into the rich tapestry of sound we experience in our consciousness. To discover how this happens is the 'holy grail' of neuroscience.

Another exciting challenge in the neuroscience of hearing is to understand the remarkable way the brain can process the complex signals of speech. Not only do we recognise the content of speech, but the identity of the speaker and even their emotional state. And the performance is better than any computer recognition system yet designed. The brain does the processing at great speed – speech is processed at three to seven syllables every second. As a vocal species, our speech is crucial to communication. Indeed, it is not too much of an exaggeration to say that our ability to communicate complex ideas makes us unique in the animal kingdom.

Hearing loss is measured by the intensities of sound frequencies that can be heard. The loss can then be classified as mild, moderate, severe and profound.

Any condition, such as excessive wax in the ear, that impedes the passage of sound along the ear canal, and through the middle ear, will produce a conductive hearing loss. Any outside influence, such as excessive noise or a virus, that causes damage to the sense organ of hearing in the inner ear, or to the hearing nerve, will lead to a sensory or neural hearing loss, commonly referred to as nerve deafness.

A conductive hearing loss is more easily corrected. Although the sounds are soft, they are not distorted, and

so surgery or a hearing aid can amplify the speech to give a good result. When someone has a sensory deafness, however, they lose many of the sensory cells in the inner ear and auditory nerve fibres. The high frequencies are most often lost, and as they convey much of the intelligibility, communication becomes very difficult. Speech sounds are also distorted, even when amplified with an aid. When most of the sensory cells are absent, no amount of amplification with a hearing aid will help the person hear speech, as there are no sensory cells to stimulate the remaining hearing nerves leading to the brain centres. At best they will hear muffled sounds. These people were the first who stood to benefit from the cochlear implant.

Children who are born with a severe-to-profound hearing loss, experience all the same problems as adults, and they can become frustrated in their teenage and early adult life, owing to their desire to feel accepted. If deafness begins before language develops, the children have difficulty with receptive and spoken language, and joining in the give-and-take of conversation. Inevitably, they are disadvantaged educationally, emotionally and socially. Early diagnosis and treatment are therefore extremely important.

The possibility of helping deaf people to hear arose in the first two decades of the twentieth century, through advances in technology, which made it possible to amplify sound with a hearing aid. The first were wearable 'carbon' hearing aids, invented by James Wilson in Alabama, and became available in 1902. Sound vibrations caused carbon particles in the microphone to move closer and further apart, varying the passage of electrical current and magnetic field and causing the earphone to vibrate. Carbon hearing aids were not powerful, and few had them. But one was given to the prime minister Billy Hughes. About the size of a car battery, it was placed on the table for cabinet meetings. Radio valves made the hearing aids of the 1930s more powerful, but the batteries were still large, so in some cases they were worn strapped to the leg. Then in 1947 the transistor was invented, which allowed a reduction in the battery size so that the hearing aid could be mounted on the head. With the advent of the silicon chip, it became possible to make hearing aids smaller and smarter, and to have the aid manipulate speech sounds to suit the patient's hearing problems.

The first attempt to induce hearing with electrical stimuli, as distinct from amplifying sound with an aid, was made in 1800 by Count Alessandro Volta. He inserted a metal rod into each of his ears, and connected them to a battery he had developed. He received a jolt to the head, and heard a bubbling or crackling sound. Perhaps understandably, this experience deterred others from electrically stimulating the ear for the next 150 years.

The development of the radio valve, however, which allowed accurate control of amplification, rekindled interest in producing hearing by electrically stimulating the hearing nerve. This need arose because the developments in hearing aid technology had not succeeded in helping severely and profoundly deaf people adequately.

The first attempt to relieve sensory-neural deafness with electrical stimulation of the auditory nerve was performed by two Frenchmen, the bioengineer Andre Djourno and surgeon Charles Eyries. It took place in 1957, when Eyries was operating on a patient who had lost all hearing after surgery for ear disease. Eyries main aim was to repair a damaged facial nerve. During the surgery, an anatomist was present, and out of curiosity he asked why they didn't electrically stimulate the auditory nerve. The surgeon found the stump of the nerve, but it was completely shredded. Nevertheless, when it was stimulated, the person could discriminate changes in intensity quite well, and even had a limited ability to detect changes in the rate of stimulation. But they could not get him to understand speech. This inspired an attempt with a second deaf person, but without success. No further implants were performed, as it appeared that electrical stimulation of the auditory nerve could not reproduce the high frequencies, or the discrimination of small changes in rate necessary for speech comprehension.

In January 1961, William House, an ear surgeon in Los Angeles, was approached by a profoundly deaf person, asking to have his auditory nerve stimulated after he had read a newspaper report of the work of Djourno and Eyries. House implanted a single electrode into this man's inner ear, in the hope of using variations in speech amplitudes and frequencies to convey speech intelligibility. But, although there were hearing sensations,

speech could not be produced for him or for others.

Later, in 1964-65 in the U.S., surgeons tried using multiple-electrode wires in a group of deaf people, in an attempt to present individual speech frequencies according to frequency place coding in the inner ear or brain. But this was without success.

In 1967, Graeme Clark began to study the brain cell responses to electrical stimulation in animals. This was to see whether it was possible to reproduce the way the brain coded sound, in order to give profoundly deaf people and speech understanding. At the time other leading scientists said that it was impossible to restore hearing by direct stimulation of auditory fibre nerves. However, Graeme Clark did not give up. He was a man of strong Christian beliefs and was determined to succeed.

Clark continued his research and found that the complex nerve supply of the inner ear was not entirely responsible for the coding of sound for speech understanding and the ability of the brain to process speech was underestimated. He conducted research to ascertain the rate of electrical stimulation necessary to transmit speech frequencies. It took eight years for him to prove that a multi-electrode or multi-channel implant would be the only possibility for transmitting the high frequencies needed for speech intelligibility. He realised that he would have to place the electrode wires in the inner ear close to the hearing nerves that transmit the speech frequencies. This raised further questions. The first was how to localise the current, without it short circuiting through the fluid of the inner ear. Second, would inserting wires into the inner ear damage the very nerves it was hoped to stimulate? Third, after prolonged and profound deafness, would the hearing nerves have died back, leaving too few to stimulate?

The cost of researching these important questions was vastly beyond Clark's limited resources. Sir Reginald Ansett, then owner of Melbourne Channel 0 allocated the funds from 3 telethons to Clark's research. Thousands of Australians donated money to the research, thus ensuring that the resulting discovery would be truly an invention for all Australians.

The flow of money from the telethons meant that Clark could create a team to do the necessary multi-disciplinary research.

Engineering the implantable receiver-stimulator section of the bionic ear posed several bioengineering questions. Should the implant have its own batteries, or receive power from outside? How to transmit power and control signals through the intact skin to the implant? Where should the implant be placed in the body? How should the electronics be packaged for the highly corrosive environment of the body?

How to pass a bundle of wires far enough around the human inner ear so that the terminals would lie near the nerves transmitting speech frequencies to the brain? Clark tried passing wires upwards from the start of the inner ear spiral, in which case the diameter of the spiral became progressively smaller. But this proved impossible because the bundles met resistance against the outer wall at the first turn of the inner ear. The problem was solved by Clark on a trip to the beach at Kiama. He experimented with a turban shell, which is like a human cochlea, and discovered that if he used small plant stems that were quite flexible at the tip, but stiffer at the base, then they would pass far enough upwards into the tightening spiral of the shell. This principle was then applied to the bundle of electrodes inserted into the inner ear.

In 1978, Rod Saunders became the first person to be implanted with the new bionic ear. The operation was successful when Rod was able to hear sounds with his new 10-electrode bionic ear. Rod returned frequently as Clark and his scientists fine-tuned the implant to try to improve the speech frequencies. When Rod could understand some words with only electrical stimulation of the ear, Clark went into the adjoining room and cried for joy. He had invented a device to help profoundly deaf people communicate in their daily life.

Congratulations Jenny Rosen

SHHH would like congratulate Jenny Rosen on her retirement. Jenny closed the door of the Department of Audiology at Hornsby & Ku-Ring-Gai hospital for the last time at the end of 2007, after more than 30 years tireless work, dedicated to improving the hearing health of our community. During this time Jenny has made an immense contribution both to SHHH and to raising the profile of the profession of Audiology in this country.

Jenny is a Fellow and Past President of the Audiological Society of Australia (ASA) and was the first member of the ASA to attain a PhD in Audiology from an Australian University.

Jenny played a key role in the founding of SHHH Australia, and is an honorary life member.

Among her many contributions, in the 1980s Jenny worked with SHHH members to develop a community education package (containing presenter's notes and audio-visual material) entitled "Hearing Loss: The Invisible Handicap". Recently, Jenny was successful in obtaining a grant from the Office of Hearing Services so that the package could be fully revised and updated. The new package was completed and launched at the Annual General Meeting of SHHH Australia in 2007. "The Invisible Handicap" continues to be an invaluable resource for professionals and consumers to use in raising awareness of hearing handicap in the community and is distributed through SHHH.

Jenny was also a key member of the organising committee and Program Chairman for the International Conference on Hearing Rehabilitation, "Bridging the Hearing Gap", in Sydney in 1993. The concept for this conference was generated by Jenny and SHHH. This provided an opportunity for consumer groups and professionals to work together to make hearing loss an issue of national concern. Jenny also volunteered her support to the Broken Hill Hearing Resource Centre, in particular, as Chair for the "Hearing in Isolation" Conference in Broken Hill NSW in 2001.

Another of Jenny's ongoing contributions is to the organising committee of the annual Libby Harricks Memorial Oration, which commemorates the community work of the late Libby Harricks, founding member of SHHH and inaugural Chairperson of Deafness Forum, and to promote the issue of hearing loss in the community.
Jenny has also been a member of the Australian Hearing Board.

Apart from all these achievements, it is impossible to estimate the number of individuals that Jenny has assisted with her Audiological expertise, both at Hornsby, and on her regular visits to provide community Audiology services at "Hillview". Through her teaching and supervision, Jenny has also supported and mentored many other Audiologists, so her skills, knowledge and values will continue to contribute to the hearing health of the community for years to come.

Photograph from left: Jenny, with former colleagues at the Department of Audiology at Hornsby Philippa Dumbrell, Ann Austin and Gael Boon at a dinner held to mark this occasion.

We are very fortunate that Jenny continues her support to SHHH as a serving member of the Professional Advisory Board.

SHHH Australia would like to convey our sincere thanks to Jenny and to wish her all the very best for a happy and fulfilling retirement.

Postscript: *Philippa, Ann and Gael have also been familiar faces at the Department of Audiology at Hornsby for many years but have also moved on. We are disappointed to report that the hospital administration has determined that Audiology Services will not continue at Hornsby and Ku-Ring-Gai. This is a massive loss to the local community. The editor would welcome any comments from members regarding this issue.*

The Impact of Hearing Loss on our Lives

Megan Gilliver PhD

Megan Gilliver is a research psychologist. She works for the National Acoustic Laboratories.

I've recently been doing a lot of reading lately on people's opinions and experiences of hearing impairment. Of particular interest to me is how people perceive the impact of hearing loss on their lives. One question that has been asked by researchers to identify these impacts is:

What are some of the difficulties you experience because of your hearing loss?

(If you like, you might want to take a minute to think how YOU would answer this question. If it is convenient, find a pen, take a few minutes, and write down your responses and compare them with some of the things that are discussed later)

When people are asked to discuss the impact of hearing loss in their everyday lives, they often mention things like:

* Difficulties with sounds in the environment. For example, hearing the kettle boil, the doorbell/phone ring or listening to the television/radio.
* Difficulties with communicating. For example, following a conversation, listening to a presentation, or participating in a meeting.

Let's look at these two types of responses. I think both groups describe the impact of hearing impairment in terms of accessing **information**. We tend to think of hearing as a tool for gaining knowledge about our environment. So when we think of hearing impairment, it is natural that we also think about it in a similar way.

This is also the way we usually think about communication. Dictionary definitions of "communicate" often describe a process of transferring information (e.g. words, thoughts, ideas, or feelings). So when we think of communication problems, we again usually think of them in terms of difficulties accessing the information. But we also use communication to achieve other (often less obvious) goals. We don't talk with people just because we want to share information. Communicating is an important way we develop and maintain our relationships. Ever received the "silent treatment"? The impact of this is often very powerful (which is probably why it is such a popular form of social punishments among children!) The emotional response we experience as a result of such silence is not just because we are being cut off from "information". Rather, it is the result of being cut off from the source of social interaction. Some would argue that it is this feeling of being "cut off" that can be the most frustrating (and often least obvious/visible!) consequence of hearing difficulties.

Access to communication with others is important for our social and emotional wellbeing. However, the importance of communication for these functions is not always recognised when we start to think about the impact of hearing impairment. As communication becomes more difficult, so does the usual maintenance of relationships with friends and family. Sometimes relationships may begin to subtly change before a hearing loss is even seriously suspected.

I recently read interviews with couples, where one partner had recently been diagnosed with a hearing loss. Looking back they were able to note times where communication had been affected, and they discussed subsequent impact on information exchanges. When discussing their relationship they also mentioned a number of social/emotional impacts. Some of these they associated with the hearing impairment (e.g. withdrawal from social settings), but many others were not considered to be related. However, a number of the changes described (e.g. perceived inconsideration, impatience, or lack of responsiveness by their partner) were, instead, attributed to inherent personality flaws. They were viewed as a "choice" made by their partner to "be difficult" and were a source of annoyance and frustration for both parties. It never occurred to them that the hearing impairment (and the subsequent impact on social communication) might also be a

contributor. When this was pointed out, both partners realized that some of their complaints may result from poor communication (on both sides!) and thus had the potential to be addressed.

The slow progression of most hearing loss means that this impact may often go unnoticed. So when we think about the impact of hearing impairment, I think it's also important to acknowledge the social/emotional impacts. So let's add in a third "difficulty" grouping that covers this:

* Difficulties with communication (social/emotional). E.g. Impact on relationships and personality as a result of changed communication.

Note that a key factor of this is the impact on relationships. Relationships (by definition!) are not one-sided. As a result, managing the impact on the relationship needs to be a shared responsibility by ALL parties. Often the person with a hearing impairment is accused of being silent in terms of not "trying hard enough" or responding appropriately or engaging in conversations (such a response may further be interpreted as a lack of caring on their behalf). But we often don't stop to think of the other "silent treatments" that creep into our shared communications. For example, responding to a hearing impaired partners request for a repetition with "don't worry" or "it doesn't matter" can be equally frustrating and similarly isolating. Therefore, remaining aware of these social/emotional impacts is very important as we support each other in the communication process.
I would be very interested in hearing your thoughts and opinions about these ideas. I think that by better understanding the impact hearing loss has on peoples' lives, the better able we are to respond to it and achieve the best rehabilitation outcomes for everyone.
Megan.gilliver@nal.gov.au

Google SHHH Support Group
This internet group provides interesting discussion on hearing matters, help for those seeking general advice, passing on the odd (tasteful!) joke, social interaction and a place to have the chance to vent your frustrations with the system. Constructive comments and criticism are most welcome. It is the members' site and relies upon members corresponding by email to an "open forum" of members. Members will endeavour to answer any questions or give advice when it is sought. Please note this is not a "chat room" and does not require much time to participate. Members choose whether to receive emails or read postings on the website.

The URL to locate the Group Home Page is: *groups.google.com/group/SHHHgroups*. Alternatively, log onto the SHHH website *www.shhhaust.org* and click on the "links" icon, scroll down and click on the link. Emails can be sent to the group at: *SHHHgroups@googlegroups.com*. To join and participate in the group, you may prefer to send your name and email address to Barry Collins at *barcoll@exemail.com.au* who has kindly set up and organised the Group.

History of the Hearing Aid Bank

Pauline Reidy
SHHH Office Manager

Over the years many visitors have come into our Information Centres for hearing help and told us that they were unable to afford hearing aids. Whilst government programs cater well for the young and the old, there is a serious need for low cost hearing aids for poorer people of working age.

In the 1980s it was apparent to our Information Centre volunteers that there was a need to establish a facility where poorer people who were not eligible for government aids had the opportunity to obtain second hand hearing aids for a nominal cost.

There was little doubt that unwanted second hand aids would become available if the need was made known, but there were issues of obtaining costly hearing aid testing equipment, and who would do the testing of client's hearing and the fitting of the aids.

Bill Taylor, a long standing volunteer at our Turramurra Information Centre began investigating the feasibility of establishing a hearing aid bank in 1986. Whilst the idea of the Hearing Aid Bank was gaining ground, the major obstacle it was facing was that SHHH Australia Inc didn't have the personnel or facilities to test or fit the aids.

Photo: Professor Philip Newall

Philip Newall, then senior lecturer in Audiology at Macquarie University (now professor of Linguistics at Macquarie University) offered help by way of proposing up to 20 clients a year could be fitted by Diploma in Audiology postgraduate students, working under supervision of qualified and experienced audiologists, if SHHH Australia Inc provided the hearing aids.

A formal application was then made to Professor Di Yerbury, vice chancellor of Macquarie University seeking the University's Co-Operation in the project. Professors Yerbury thought the Hearing Aid Bank was an excellent idea and replied, saying:
"The University is delighted to be participating in the offering of a community service not available elsewhere in NSW and we look forward to further contact with you as the scheme progresses".

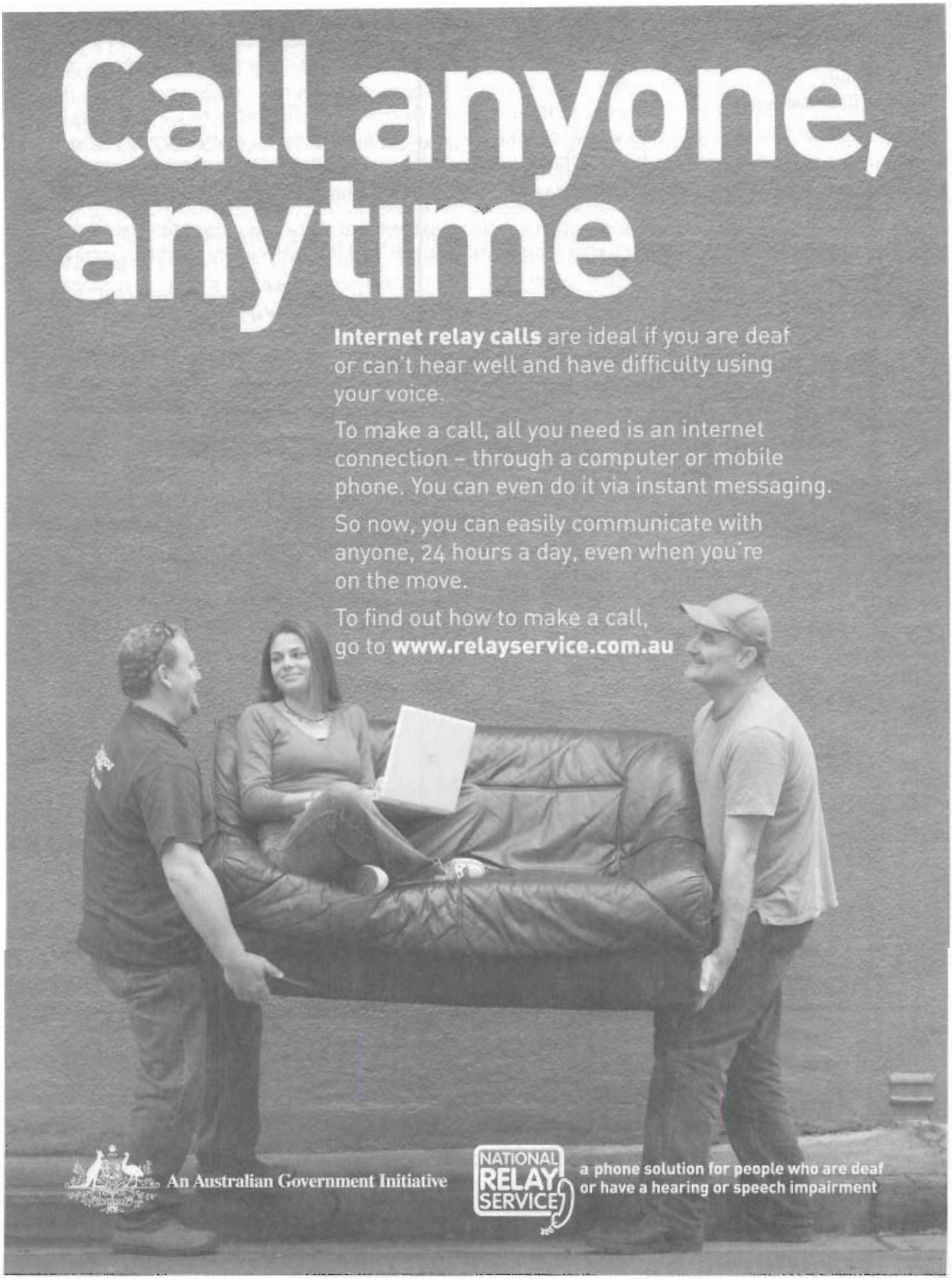
The first hearing aid was fitted under the scheme in November 1988 and the Hearing Aid Bank celebrates 20 years this year.

The operational side of the Hearing Aid Bank includes the following:

- Collecting unwanted second hand aids
- Processing application forms and eligibility (low income earners/health care card holders)
- Dispatching aids from SHHH Australia Inc to Macquarie University
- Testing and determining the characteristics of the hearing aids at Macquarie University
- Testing clients hearing by audiologists
- Fitting the aid and advising it's use and maintenance

To be eligible for a hearing aid through the scheme, a person must hold a health care card or be a low income earner. Applications can be made through either SHHH Information Centres at Turramurra or Canterbury either in person or over the phone. Applicants undertake to pay $100- towards the cost of the hearing test, the making of an ear mould and the fitting of the hearing aid. The bank can make use of any behind-the-ear hearing aids. Unwanted commercially purchased hearing aids, for use by the bank, will be gratefully accepted by SHHH Australia Inc, please forward to:

SHHH Australia Inc
Room 25, 1334 Pacific Hwy
Turramurra 2074
Ph 91447586
Fax: 91443936
Email *shhh@netspace.net.au*
Web: *www.shhhaust.org*


Call anyone, anytime
Internet relay calls are ideal if you are deaf or can't hear well and have difficulty using your voice.
To make a call, all you need is an internet connection – through a computer or mobile phone. You can even do it via instant messaging.
So now, you can easily communicate with anyone, 24 hours a day, even when you're on the move.
To find out how to make a call, go to www.relayservice.com.au
An Australian Government Initiative
NATIONAL RELAY SERVICE
a phone solution for people who are deaf or have a hearing or speech impairment

More on Captioned Theatre

Captioned theatre productions have increased significantly this year. SHHH supports captioned theatre as an excellent way to increase access for the deaf and hearing impaired. However, the hearing loop should not be forgotten. For those with a T-switch, a loop can provide a better result than captioning.

If you fancy a trip to the theatre this year, then the following performances will be captioned:

SYDNEY OPERA HOUSE - DRAMA THEATRE
The Vertical Hour - Wednesday, 27 February at 1pm and Friday, 29 February at 8pm
The Serpent's Teeth - Wednesday, 7 May at 1pm and Friday, 9 May at 8pm
The Narcissist - Wednesday, 24 September at 1pm and Friday, 26 September at 8pm
The Pig Iron People - Wednesday, 12 November at 1pm and Friday, 14 November at 8pm

SYDNEY THEATRE - WALSH BAY
Rock'n'Roll - Friday, 25 April at 8pm and Wednesday, 30 April at 1pm

GLEN STREET THEATRE - BELROSE
The Club - Wednesday, 20 February at both 11am and 8pm
Heroes - Wednesday, 12 March at both 11am and 8pm
Wharf Revue: Beware of the Dogma - Wednesday, 2 April at both 11am and 8pm
Strangers in Between - Wednesday, 21 May at both 11am and 8pm
The Year of Magical Thinking - Wednesday, 11 June at both 11am and 8pm
Keating! - Wednesday, 23 July at both 11am and 8pm
Tell Me On a Sunday - Wednesday, 13 August at both 11am and 8pm
Valley Song - Wednesday, 27 August at both 11am and 8pm
Codgers - Wednesday, 17 September at both 11am and 8pm
Bombshells - Wednesday, 22 October at both 11am and 8pm

CANBERRA THEATRE CENTRE
Menopause The Musical - Saturday, 1 March at 2pm
Heroes - Saturday, 5 April at 2pm
As You Like It - Saturday, 3 May at 1.30pm
The Year of Magical Thinking - Saturday, 5 July at 2pm
My Fair Lady - Saturday, 16 August at 1.30pm
One Man - Thursday, 18 September at 8pm
Anatomy Titus Fall of Rome - Saturday, 18 October at 1.30pm
Possum Magic (children's show) - Saturday, 31 May at 10am
Emily Loves to Bounce (children's show) - Saturday, 16 August at 10am

More details about the shows and how to book can be found on their website *www.theatrecaptioning.com.au:*

The important thing is that you must contact the theatre well in advance and ask about whether the performances have a loop or captioning. You may need special seats or to go to particular performances. And, even when you do all the right things, the gremlins can still ruin your evening. The following article explains the disappointment experienced by Lyndal Carter at her first trip to captioned theatre.

You wouldn't read about it....

Having heard the news that Sydney-siders were to enjoy a series of live-captioned theatre events for the first time, I enthusiastically booked seats for myself and a friend to see "Dicken's Women" at the Glen Street Theatre in Belrose. I was looking forward to enjoying the rare experience of "understanding every word" and also, as an undercover ambassador for SHHH, reporting back to our members on my wonderful opportunity to experience fully accessible theatre.

We took our seats with anticipation, the lights dimmed... then someone (clearly not the expected artiste) arrived on stage and announced (without using a microphone or any other technical aids) that "due to a technical failure" the performance would proceed without the promised captions. You wouldn't read about it- you couldn't read about it! Apparently, the computer was "down". So was I.

Feeling that I should "vote with my feet", I took the offer of leaving the performance and having my tickets refunded. Not much of a night out for my friend, who actually has excellent hearing but felt strongly that under the circumstances we could not stay, not wanting our disappointment to go unnoticed. A scan around the ears of the audience in the rows in front made it apparent that here were other patrons who would have appreciated the captioning. As no-one else took up the offer of a refund we hoped that they had actually heard the announcement....and that they were not as disappointed with the turn of events as we were.

I must say that the staff at the Glen Street Theatre were pleasant and apologetic, and efficient in refunding the cost of my tickets and theatre program. However, while I left with the promise that every effort would be made for another captioned performance to be staged- I have heard nothing further. I hope that this does not reflect an attitude that the captioning was simply a novelty, a "one-off", and unimportant to future patrons.

The SHHH Digest

5th National Deafness Sector Summit
Combine a trip to beautiful Canberra to see the autumn colours with the invigorating 5th National Deafness Sector Summit on **24 & 25 May 2008.** The theme of the Summit is "It's Your Life – a whole of life approach to deafness". There will be presentations and opportunities for discussion about the critical early years, starting school, adolescence, working years and winding down – providing a valuable insight into current discussions, research and technology.

Author of the bestseller **Mao's Last Dancer**, Li Cunxin, will speak about his life and his highly successful book that is being made into a movie. Li's daughter Sophie was born deaf. Professor Jennie Brand-Miller, the guru of the glyceamic index and cochlear implantee, is also a speaker.

Cost of the conference is $253 (early bird rate of $198 to 29 February), $77 for the dinner.

Contact Deafness Forum for the booking form at *www.deafnessforum.org.au* or call (02) 6262-7808.

Libby Harricks Oration
While you're in Canberra at the Summit, you can hear **Professor Bob Cowan**, Chief Executive Officer of the HEARing Cooperative Research Centre. In 2004, Professor Cowan was selected as "Australian Professional of the Year 2004" by Professions Australia. An internationally recognised expert in the field of cochlear implants and audiology, he has over 100 peer –reviewed publications, and holds a number of technology patents. A bargain at only $22, including the paper. Contact Deafness Forum for more info.

Shepherd Centre Trek India
The Shepherd Centre teaches deaf children how to speak and enable them to attend mainstream schools with hearing children. As a fundraising venture the Shepherd Centre is organising a fundraising trek in the Indian Himalayas in September 2008. Participants must raise $6000 in sponsorships. If you fancy a trip to the Himalayas or would like to support the Shepherd Centre, go to *www.shepherdcentre.com.au/treks.*

Telescreen hearing test
The National Acoustic Laboratories have developed a hearing screening test you can do over the telephone. The phone test is modelled on a service developed by Dutch researchers and operated in the UK by the Royal National Institute for the Deaf. Callers to the Telescreen number will hear randomly selected sets of single-digit numbers spoken behind background static noise. The caller then enters the numbers they believe they heard into their telephone keypad. At the end of the screening, the caller will be informed whether or not they have passed and if they failed they will be referred for further advice. One in six Australians has a hearing impairment and 60 per cent of people over 60 have a hearing loss. You can access the Telescreen hearing test by ringing 1800 826 500. Give it a go, it's free!
Daily Telegraph 5/09/2007

Going to court in NSW?
The excellent new Diversity Services website of the NSW Attorney-General has information about court processes in straightforward language and provides information about how courts can accommodate individual requirements. It also explains how to request an interpreter, equipment or assistance when going to court. The website address is *www.lawlink.nsw.gov.au/diversityservices*

Looking for a smoke alarm?
In response to the article by Ray Piesse in the November issue, a number of people have asked what sort of smoke alarms are available for the hearing impaired. Printacall have advised us that they sell the Bellman Visit Smoke Alarm for $449. The Bellman includes both a strobe light and a vibrating pad, which means it is more effective than just having one or the other. The smoke detector, strobe light and vibrating pad can all be located where most effective. It operates off the mains, and has a back-up battery so it will still work during a power failure. Contact Printacall on (02) 9809-2392.

CDMA closure postponed
The government has forced Telstra to keep its CDMA mobile phone network open for at least another 3 months. Telstra wants to move CDMA customers to its NextG network, but the new handsets on offer are considered to be poor and NextG coverage is not as good as CDMA. Rural consumers are particularly concerned. It is anticipated that CDMA will now close down on April 28.
The Australian 18/1/08

The SHHH Notice Board

SHHH Hearing Information Centres

Turramurra
Room 25, Hillview Community Centre
1334 Pacific Highway, Turramurra NSW 2074
Phone & TTY (02) 9144 7586
Fax (02) 9144 3936
OPEN: Tue, Thur, Fri 10 am to 3 pm

Canterbury
Canterbury Hospital
Outpatients Department
Phone 9787 1088

Goulburn
SHHH assists at the QUOTA Resource Centre. Contact Alena Ward on (02) 4827 3913 for an appointment.

Newcastle
SHHH assists at Australian Hearing, 241 Denison Street, Broadmeadow, on Wed 9am to 3pm.
Phone (02) 4962 1388

SHHH Support Groups

NSW
Sydney metropolitan area local SHHH groups are currently meeting in Baulkham Hills and Chatswood.

Regional
SHHH Groups and contact persons are located in Barraba, Blue Mountains, Newcastle, Tamworth and Orange.

Contact the SHHH office on (02)9144 7586 for meeting details of all SHHH Groups.

If you want to start a local SHHH Group anywhere in Australian, write to the Groups Co-ordinator at the SHHH office to get all the information and ongoing support you need.

Hearing professionals may see this as an opportunity to help their clients receive the support and encouragement they need to manage their hearing loss better.

SHHH Google Group

http://groups.google.com.au/group/SHHHgroups

SHHH Board 2007

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2007 Annual Membership fees

Full membership **$37**
Covers two people with one copy of hearing matters to one address.
Pensioner membership **$27**
Covers two people with one copy of hearing matters to one address.
Pensioners are those who are holders of the Pension Concession Card.
Overseas subscription rate **$47**
(Australian dollars)
Corporate rate **$150**

THE BACK PAGE

How many dogs does it take to change a light bulb?

Golden Retriever – The sun is shining, the day is young, we've got our whole lives ahead of us, and you're inside worrying about a stupid burned out bulb?

Border Collier – Just one. And then I'll replace any wiring that's not up to code.

Dachshund – You know I can't reach that stupid lamp!

Rottweiler – Make me!

Boxer – Who cares? I can still play with my squeaky toys in the dark.

Labrador – Oh, me, me!!!! Pleeeeeeze let me change the light bulb! Can I? Huh? Huh? Can I? Pleeeeeeze, please, please, please!

German Shepherd – I'll change it as soon as I've led these people from the dark, checked to see that I haven't missed any, and made one more perimeter patrol to see that no-one has tried to take advantage of the situation.

Jack Russell – I'll just pop it in while I'm bouncing off the walls and furniture.

Old English Sheepdog – Light bulb? I'm sorry, but I don't see any lightbulb.

Cocker Spaniel – Why change it? I can still pee on the carpet in the dark.

Chihuahua – Yo quiero Taco Bulb. Or "We don't need no stinking light bulb"

Greyhound – It isn't moving. Who cares?

Kelpie – First, I'll put all the light bulbs in a little circle...

Poodle – I'll just blow in the Border Collie's ear and he'll do it. By the time he finishes rewiring the house, my nails will be dry.

Don't delay, join SHHH today!
2008 Membership Full $37, Pensioner $27, Overseas $47, Corporate $150
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