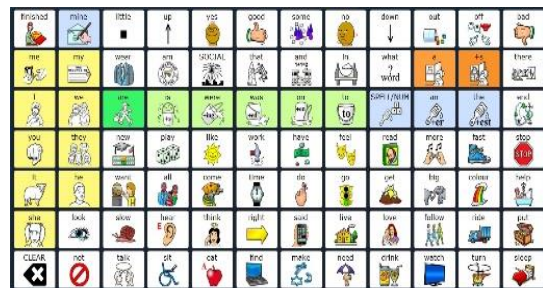


In Memory of Bruce Baker



Foreword by Janet Scott:

When I heard that Bruce Baker had died in May 2020, I was sad – but also so grateful that I’d had the opportunity to meet him and learn from him. Bruce Baker’s name is synonymous with the Minspeak® system of AAC. Minspeak® is a specific way of representing language through multi-meaning icons.



An example of a Minspeak® overlay

When Minspeak® first came to the UK in the 1980s the world of AAC was quite different from how it is now. There was much less choice, there were no dynamic displays, few systems if any offering word prediction, no software for producing symbols for low-tech displays. It is fair to say that Minspeak® was a revolutionary concept that allowed people to use a voice output communication aid to say whatever they wanted to without having to spell.

My own early perspective of Minspeak® was similar to Martine Smith’s description below. I was confused by the apparent complexity of the symbols/icons and could not understand how the system could possibly work for anyone. It was only after I’d had the opportunity to hear Bruce Baker speaking in Edinburgh (the event organised by Sally Millar and attended by Janice Murray) that it all fell into place. What had initially appeared, to me at least, as an overly complicated set of symbols with no apparent link to meaning suddenly made sense; I understood why the symbols seemed so “busy” and detailed. Associating the icons with stories and metaphors helped me remember their meanings – and still to this day, several years after I have last had any contact with Minspeak®, I can still remember many of these associations, for example the blue “cups” and “house” = “coffee” (after a brand of instant coffee), “cups” and the “leprechaun” icon = “Guinness”, and the little white lamb which signified actions (verbs) as it jumped over a fence (the Blissymbol action indicator), which also meant “jumper” when preceded by the “jacket” (clothing) icon and “white” when preceded by the “paintpot” icon (“paintpot” followed by the blue “cups” = “blue”)¹. The arrival of Minspeak® Application Programmes was also a game changer in the world of AAC – for the first time we had a

¹ From the UK based Language Learning and Living (LLL) MAP (Minspeak Application Programme) developed by Tony Jones and along with his students at Portland College in the 1990s.

symbol based language structure for voice output communication aids that we could develop and personalise for an individual rather than having to start from scratch.

Bruce Baker was an inspirational speaker, a brilliant and a very generous man. I thought it would be appropriate to have a short tribute to him in the Communication Matters Journal; the response was overwhelming and the resulting article was only able to reflect a sample of people's recollections of Bruce Baker's contribution to the world of AAC. The full article is provided here.

Some of you will remember Bruce – he was a frequent attendee at CM conferences and at other events in the UK in the 1990s and early 2000s. Some of you may not realise that you are communicating with an AAC system that owes a lot to his genius. Some of you will never have heard of him and not be aware of his gift to the world of AAC. I hope that this collection of memories will give you a picture of Bruce Baker, the man behind Minspeak®.

Martine Smith, Professor in Speech and Language Pathology, Trinity College, Dublin, Ireland: I was a novice Speech and Language Therapist (SLT) when I first met Bruce Baker. My AAC world at that point largely evolved around copying, cutting and pasting graphic symbols, battling with laminating paper that insisted on bubbling as I tried to create durable communication boards, and wrestling with Allen keys and wheelchair mounts. Something was needed to bridge the gap to speech synthesis for those who could not read and spell. Bruce invented that bridge, the revolutionary Minspeak framework, bringing his incisive linguistic 'little grey cells' as an invaluable gift to the field of AAC. I wrestled with written descriptions of Minspeak, trying to understand what it could do, but it was only when I first heard Bruce describe it that it all fell into place. One of his many special gifts was his ability to see to the kernel of a problem, and then to communicate the solution in a way that was exciting, accessible and inviting. Each time I saw Bruce at conferences, he was in a huddle, sharing stories, plotting new adventures. Always generous with his time, his intellect and his spirit. One of my most enduring memories is of the tender care he took of his mother in those early ISAAC years. A giant in every sense, we owe him an enormous debt.

Sally Millar, Retired Speech and Language Therapist and Joint Director of CALL Scotland: Bruce Baker was unique - a real hero; giant brain, polymath, original thinker, and a committed, passionate and generous champion of people who use AAC. The world of AAC will be a paler and poorer place without him.



*Bruce at CALL Scotland
in Edinburgh*

I remember very clearly first meeting Bruce Baker in 1986 at the ISAAC Conference held in Cardiff. His presentation hit me like a lightning bolt - it was an absolutely seminal moment in my whole AAC career. First I heard him give a paper, then I waited and introduced myself to him, and after that I attended every session and meeting at which he was contributing, to soak up everything that he said, so fluently and expertly. His idea was so sophisticated and yet so simple and intuitive. Quite simply, he was inspiring.

Having come into the field from a completely different background, when he started meeting people with disabilities Bruce saw with great clarity that if the physical and/or cognitive effort needed to

access a communication system was too great, and the time it took / the speed of communication achieved with such a system was too slow, the user would lose motivation, and the AAC system in use would probably be rejected in favour of simpler and more immediate and direct (and limited/limiting!) methods. He expressed this in a 'magic formula':

| |
|--------------|
| MOTIVATION |
| EFFORT +TIME |

Therefore, his primary aim was to devise 'minimal effort speech' - MinSpeak - that would achieve successful communication for the user. So, he invented a new way of representing language and linked with a disability tech company, Prentke Romich, that could make synthetic speech generating devices to transform this into spoken form.

Bruce was a linguist, first and foremost, and he was the first person in the new and burgeoning field of computer-aided communication in the 1980s who looked at the user's needs primarily from the point of view of language (not technology). He was thinking about how to use AI techniques to help users to access and use full language, grammar and all, in order to transmit meaning efficiently, rather than how to generate text. It may sound obvious now, but it was quite radical at the time.

In those days, there were a number of engineers who were working on making non-speech communication (by which they meant 'writing') more accessible (e.g. for switch users) and faster (e.g. by means of letter and word prediction). They were basically clever computerised developments of the Possum Typewriter. Some were excellent. But - bottom line - these systems were only useful to people who could read and spell.

But almost all of the children I worked with at the Scottish Council for Spastics (now called Capability Scotland) could not read. Some were just very young, some had complex multiple difficulties including visual difficulties, learning difficulties, or dyslexic type specific difficulties with literacy. So, a text-based system was just not helpful.

However, many of the children could see, recognise and remember graphic symbols, and our school, led by Chief SLT Alison MacDonald, was one of the early pioneers of the use of Bliss symbols, since the late 1970s. Bliss symbols are not just pictures, but a linguistic system composed of a limited number of key shapes, each of which carry a meaning, that can be recombined in different configurations and used to generate an infinite range of meanings. Some of our children successfully used this system at quite a sophisticated level, others achieved basic functional communication.

Bruce had come across Bliss symbols in North America and had immediately perceived the affinity between Bliss and the 'hieroglyphics' system that he was working on. In the same way, practitioners working with Bliss symbols were amongst the earliest adopters of Minspeak - we 'got it' immediately!

Bliss and Minsymbols were very different, but underlying both was the principle of a semantically based system where graphics represented building blocks of meaning (words) and allowed a user to sequence these to build up unique phrases and sentences. This was very different both from text and from a small fixed vocabulary of 'pictures'. Users should be able to say whatever they want to, and two 'hits' to generate a whole word was far quicker than letter by letter typing.

After Cardiff, fired up and desperate to help to 'spread the word' about Minspeak and the earliest TouchTalker and LightTalker devices, I invited Bruce to come and speak in Edinburgh, which he kindly did, shortly afterwards, to an audience composed mainly of Speech and Language Therapists. Some were convinced instantly, others were more hesitant, but all were mesmerised by the

phenomenon that was Bruce Baker. I remember vividly, as an organiser, the one thing Bruce as a presenter required was an endless supply of Coca-Cola, and once he got 'wound up' into his talk, he would speak without any notes - and without apparently drawing breath! – for hours on end. It was exhilarating.

Over the years, I always enjoyed meeting up with Bruce. We often ended up talking about grammar (you love it or you hate it!). He was entertaining, well informed and erudite – yet at the same time somehow also rather 'other worldly' and a bit fragile.

He kindly invited me as a speaker at an early Pittsburgh Employment Conference. This event was so impressive as it was totally user-focused and user-led, which, again, was pretty revolutionary at that time. I was very moved to see how Bruce cared so much for every individual augmented communicator (and they for him). He was also always very generous in supporting users' participation and became as committed to facilitating self-advocacy for users as he already was to giving them a means to communicate.

On that trip too I enjoyed seeing another side of Bruce. I still vividly remember the personal tour he gave me of the Pittsburgh art museum, in-depth, painting by painting - I learned so much! And I was honoured to meet his lovely mother, whom he cared for very devotedly.

Bruce didn't forget about Bliss symbols and Bliss users and, working with Shirley McNaughton of BCI, produced a Bliss based version of Words Strategy that provided the best of both worlds for Bliss users who wanted to access a speech output system without giving up their own 'language'.



Bruce and Shirley

Bruce's work has been built on and developed in many directions since those early days, and opened up to different types of users. But the power of his original idea, which began a whole new paradigm for AAC technology, has never been surpassed. If you go to any gathering where there are AAC users, and look for those that can speak fastest and most fluently, the chances are very high that you'll be looking at a Minspeak user.

Bruce was a real 'one-off'. With kindness and huge intelligence, he devoted his life to trying to give disabled people the gift of language.

Janice Murray, Professor of Communication Disability (AAC), Manchester Metropolitan University:

As a relatively novice Speech and Language Therapist, I had the privilege of attending a day-long workshop presented by Bruce in Edinburgh in the late 1980s. He spoke eloquently and academically about the theory behind 'minimum effort speech'. In fact, he was effervescent! I was a convert to the 'Minspeak' principles and its usefulness to people who might benefit from it. He was a true inspiration in terms of encouraging us all to think outside of the box. Bruce, you will be sadly missed and fondly remembered.

Stephen von Tetzchner, Professor Emeritus, University of Oslo, Norway: Bruce Baker (1943–2020) – A great discussant has left.

The sad message of the passing of Bruce Baker awakened many memories in me. Bruce has been a prominent member of the AAC community and ISAAC from the very start. He has had a life-long

devotion to evolving aided communication, and his original ideas and the Minspeak system represent important contributions to the field. His articles in the computer magazine Byte in the 1980s were intellectually stimulating when electronic communication aids hardly existed and they helped gain insight into aided communication processes.

We had a long first conversation about 35 years ago, where he explained the Minspeak system to me, illustrating it by constructing the sentence «I want to eat Finnbiff», a Sami dish made from reindeer meat, using the icons «restaurant mode», «beef» and «sun» (metonym of midnight sun). Throughout the years, we have had many interesting discussions at ISAAC conferences, often disagreeing, sometimes heated, but always friendly. In the last years, Bruce tended to engage me in discussions about psychoanalysis, adding another field of disagreement.

Bruce's ideas, lectures and engaging discussions will be very much missed.

Janet Larcher: I remember him always bringing his mum on trips with him, his liking for malt whisky and for browsing British antiques. He gave a lecture in London once - can't remember where, but I know he wanted to browse some antiques, so I walked him up to Camden High Street and the antique alleys there, and he often referred to that afterwards. On the work front I was always amazed that he had been able to see the inscriptions on the Egyptian tombs and use that as a model or basis of an icon-based communication method - that was mind blowing. At an early Communication Matters conference (at Portland College) we set up a "debate" between Bruce and Walt Waltosz of Words Plus Inc, debating the pros and cons of Minspeak versus word/sentence prediction. It started in the morning, had to stop for lunch, but then continued informally for the rest of the day! He was a very sweet and charming man with a massive intellect who I suspect also had an iron will and the ability to drive a hard bargain!

Peter Zein: To my dear friend Bruce Baker. I am glad I did meet you because you did believe what you were doing is correct to help people in their life and when I did meet you in Pittsburgh it was amazing because your passion about giving language to people, where most people they weren't believing in us about having language where you can use everyday life. And you want to help every person to have voice in their life and it is sad I didn't get picture with you together that is sad. But I don't forget you my friend because you did help me to use my Blissymbols on your Minspeak and that was amazing thing because both Shirley McNaughton and Bruce Baker worked together.



Peter using Bliss Minspeak Words Strategy

You don't see that very much to give person voice because Bruce Baker he didn't know me well in that years and he did it because he did believe in people where most people they don't believe in some disabilities when you can't communicate, but he did go for it to see what he needs to do to help people to communicate and he did it for years, he didn't walk away from that problems he did amazing language of Minspeak.

I am going to say thank you to my friend Bruce Baker I will not to forget you because you did my future great and you were loving person and that passion you had that was amazing we will keep your name going on, sleep well my friend. I think that it was amazing to put your life helping people and it is from 1980 where most people they didn't believe in disabilities who they can't talk.

Gillian Rumble, Speech and Language Therapist: I first met Bruce in the late 1980s when I started as a SLT consultant at Liberator Ltd. This was in the early days of AAC when the Touch and Light Talkers were the absolute latest in technological advances. The devices had static overlays, and the DECTalk speech synthesiser had just been introduced. Bruce Baker's inspirational creation of Minspeak opened up a world of vocabulary to device users who were limited to fixed overlays of 128 locations or less. I feel I was very fortunate to have been working in the field of AAC in those exciting times of rapid development. I was even more fortunate to have had the opportunity to work closely with Bruce who taught me the principles of language development for AAC users using core vocabulary and multi-meaning icons. When sitting in a presentation delivered by Bruce, you could not fail to appreciate his depth and wealth of knowledge. Nor could one ignore his passion and enthusiasm to pass on that knowledge to the AAC community. All AAC users of today are benefiting from Bruce's dedication to passing on the value of 'core' and the principles of semantic compaction.

I remember that soon after starting to work at Liberator, Bruce introduced the idea of MAPS (Minspeak Application Programmes). These were the first tentative steps towards providing individuals with a large and flexible single word vocabulary which today we take for granted as an obvious need for all AAC users. His first MAP was Words Strategy. I was privileged to work closely with Bruce to develop the UK version and a later version in Bliss. He was one of the first in this field to recognise that a communicator needs to have control of their vocabulary and, in order to express their ideas in novel sentences, they need access to core as well as fringe vocabulary. I am pleased to know many Minspeak users who continue to use the early MAPS and their fluency of expression is testament to Bruce's inspirational work. Bruce is undoubtedly the person who has had the most influence on my approach to AAC and vocabulary development.

So that is Bruce Baker the Professor, but what of Bruce Baker the man? He was such good company and the perfect host. Over the years I have been lucky enough to spend time with him in Pittsburgh and to be guest in his home. We also met at conferences in locations around the world. If you ever wanted to learn about a town and its culture, Bruce was your ideal tour guide. It didn't actually matter whether it was his hometown or any European city, you could be sure that he would know everything you needed to know about its history, culture and architecture! But what made Bruce the best of company was his sense of humour and fun. I could always rely on him to have the most outlandish of stories to tell. I have many happy memories of sitting with him catching up on the gossip or laughing at one of his hilarious anecdotes.

The last time I saw Bruce was when he invited Judy King and me to present at the Pittsburgh AAC Language Seminar Series (PALSS) in Spring 2016. It was wonderful to spend time with him again and to appreciate his continued dedication to the AAC community.

The story of Minspeak continues. Thank you, Bruce, for this remarkable legacy.



*Judy, Bruce and Gillian in
Pittsburgh 2016*

Judy King, Independent Speech and Language Therapist: I was first introduced to Liberator and Minspeak in 1988 when I worked for Bromley Health Authority, but it wasn't until 1990 when I started at Nash College that Minspeak took over my life. I first met Bruce at a Minspeak conference, although by then I was already a convert to Minspeak, core vocabulary and language development. In 1993, I met him again in Pittsburgh when I went to a Minspeak conference.

Bruce was an inspirational speaker whose enthusiasm for supporting people using AAC to develop their language potential was contagious. I have never known another person who had such a vast memory, intellect, and ability to impart knowledge in such depth on a wide variety of subjects. He was also tremendously compassionate and helped so many people.

I fully acknowledge that he absolutely inspired me to become the therapist that I am.

I presented with him at the Communication Matters Conference in 2008, which was quite intimidating since he would suddenly throw the spotlight on you to ask for examples of therapy to support his presentation which often went slightly off at a tangent.

In 2016, Gillian Rumble and I were invited to present at the Pittsburgh Seminars. We had the most amazing time there and hold very happy memories of the work at Semantic Compaction and entertainment at Bruce's house in Rolling Rock Road.

Bruce will truly live on through the generations as we therapists train others and work with people using AAC. His legacy of language, communication and independence for all people using AAC will last forever. He has changed the world to be a better place.

I felt quite emotional when I heard that Bruce had passed away, although Gill and I were aware that he was unwell when we were with him. It's an AAC era that I'm very proud to have been part of.

Toby Hewson: I met Bruce 2 or 3 times at Communication Matters Conferences, he was very quiet and kind man. He wanted me to go to his Pittsburgh Employment Conference 1 year for AAC people, but I was emergency Chair Communication Matters and I couldn't go, I was sorry because his Conference I would love to go.

Deborah Jans, Specialist Speech and Language Therapist, Keycomm: My memory is of going to my first AAC lecture while working in London at a school for children with physical disabilities. We were off to see some American called Bruce Baker. This was one of my first introductions to the world of AAC. I remember being floored by the idea of multi-meaning icons and the way we could give our clients more vocabulary without making the communication aid very big.

Nicky Grey, Specialist Lead in Augmentative and Alternative Communication, Gloucester: A truly inspirational, devoted and dedicated practitioner. Many years ago I remember attending a Communication Matters conference in Leicester and listening to his wonderful presentation. It has stayed in my memory forever. Attending his workshop made a huge impact by developing my own skills and knowledge and has influenced my ongoing practice in the field of AAC. Thank you.

Mark Street, AAC Consultant and Training Manager, Liberator Ltd: I have fond memories of Bruce Baker both professionally and as a friend. Bruce and I spent many weeks working together over the years and he taught me so much and shared his knowledge and experiences. I am so fortunate that I

had this opportunity and I will be forever grateful to him. His work will live on without doubt, there are many individuals worldwide who benefit from the work he did and Minspeak (Unity/LAMP Words for Life) will continue to help those individuals. As a friend, Bruce and I had many fun times together and shared some great experiences. We travelled the length and breadth of the UK and USA often stopping when passing a bookshop or antique furniture shop. It wasn't unusual for him to return home with far more luggage than he originally came with.

The day before Bruce sadly passed away, I messaged him and reminded him of the hand sanitiser that he first experienced over 17 years ago when coming to visit my daughter Lillie-Mai in hospital. Lillie-Mai was born 3 months premature and Bruce was keen to visit her on one of his visits to the UK. On entering the ward, Bruce was asked to use the hand sanitiser, he immediately commented on the smell and it was a smell that he would always associate to the experience of meeting Lillie-Mai for the first time. The day before he died, Bob Conti was able to share this memory with Bruce and he was able to acknowledge this memory, I hope it was a good memory for him.

Although many people may have not met with Bruce they will be profoundly affected by his work in the field of AAC. His legacy will last, he played a very important part in people's lives and will be very sadly missed. Rest in peace my AAC Yoda and good friend.