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# 5 Savant Syndrome: An Unusual Case of Narrative Ability

DAVID HILES AND ELAINE HILES

## Abstract

Savant syndrome is a relatively rare, but quite remarkable condition, in which a person with serious intellectual impairment has astonishing islands of ability or brilliance that stand out in stark contrast to their overall disability. This paper presents the case of a male savant who has profound sensory, communicative and physical disabilities, and who is unable to speak or read. Nevertheless, he has a recently discovered, and untutored, prodigious ability to draw. He draws from life, but most remarkably he can draw with detail from memory. His drawing is quick and instinctive, and his mastery of perspective is astonishing. While his own sense of identity is clearly reflected in what he chooses to draw, it is on his unusual representations of narrative structure that this paper will focus.

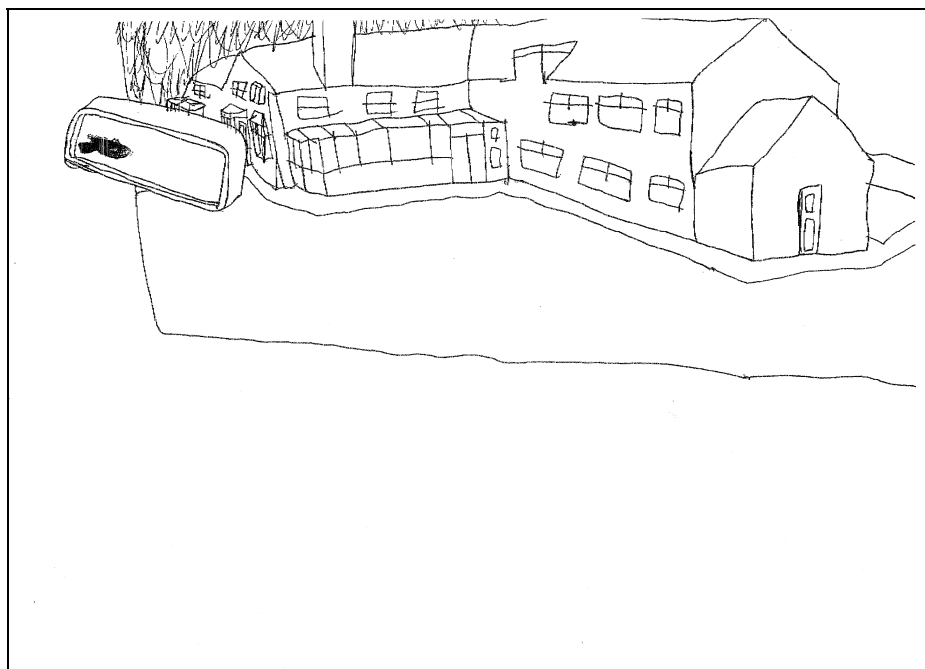
## Savant Syndrome

Savants are people who despite serious disability have quite remarkable and sometimes spectacular talents, ie. astonishing islands (splinters) of ability/brilliance in contrast to their overall disability. This is usually described as a particularly rare phenomena, although there is a growing literature of well documented cases (see Sacks 1986, 1995, 2007; Treffert, 1989). Recently, the Academy Award winning movie *Rain Man* has led to the term “savant” being much more widely known.

Savant syndrome was first properly recognised by Dr. J. Langdon Down, who in 1887, coined a term that has led to the current usage of “savant syndrome” or “autistic savant”. However, while there is a strong association with autism, it is not the case that all savants are autistic. About 50% of the cases of savant syndrome are from the autistic population, with an estimated incidence of “savant abilities” in the autistic population of around 10% (Treffert, 1989; Treffert and Wallace, 2002). Some of the confusion over terminology is clarified by making a distinction between three categories of savant syndrome: **Splinter Skills** – where the individual possesses specific skills in contrast to their overall level of functioning, **Talented Savants** –

where the individual displays a high level of ability in contrast to their disability, and **Prodigious Savants** – which involves a much rarer form, where the exceptional ability is not only spectacular in contrast to the disability, but would be spectacular even if displayed by a non-disabled person. It is very likely that many savants in the first two of these categories go unnoticed, while most research interest has focussed on the cases of savants with prodigious abilities ranging over musical and artistic skills, calendar calculating, memorisation and language skills (Hermelin, 2001).

### **Drawing 1**



There are possibly three necessary components of savant syndrome:

- (i) remarkable ability to memorise, record detail, or repeat an operation endlessly;
- (ii) a contrast between specific and general abilities;
- (iii) a means of giving expression to this ability.

The importance of the third of these components should not be underestimated. The incidence of the first two components would go unnoticed without any means of expression. In the case of prodigious savants, it is possible that a striking contrast between specific and general abilities, early recognition, and careful encouragement, are important contributory factors to how a talent develops. While savant syndrome has many psychological and neurological implications, our focus here will be on one unusual example that does not quite fit into any one category.

### **Tim**

Drawing 1 above was one of the earliest of Tim's drawings that brought attention to his savant skills. The drawing is immediately recognisable to anyone who knows the building. The perspective is spot on, and the drawing is correct in detail in every respect, except for the way the chimney joins the roof. It was drawn from memory, several days after Tim had been sitting in a taxi, for a few minutes, waiting to be driven back home.

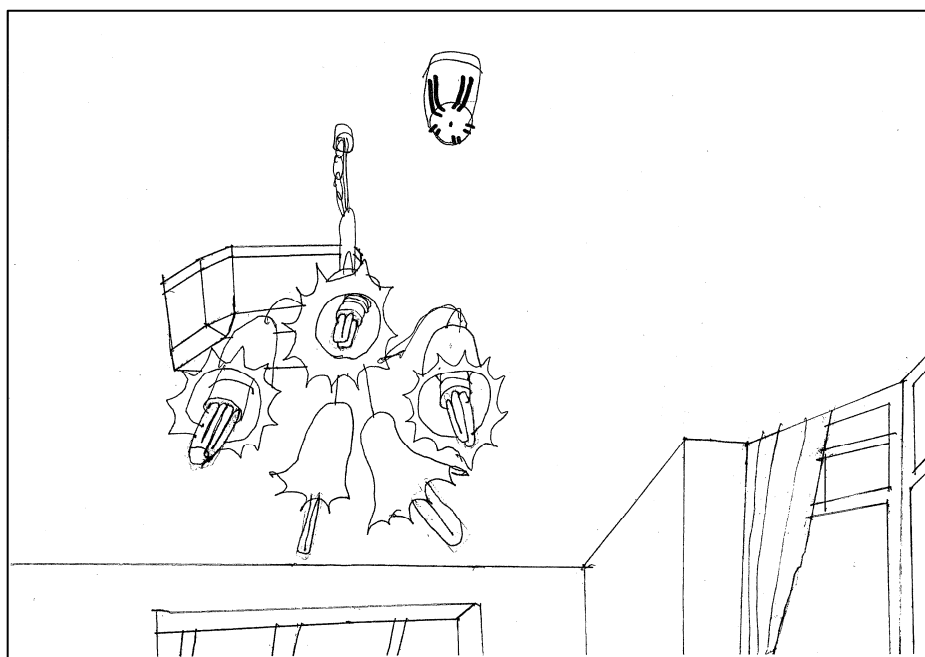
Tim has profound disabilities. He is in his mid forties, has a severe hearing loss, and he has serious communicative and physical disabilities. He is unable to speak or read, he cannot walk unaided, and has received limited education. He has some autistic traits.

Despite his sensory and communicative disabilities, Tim does use *Makaton*, a sign system specifically developed for people with learning difficulties (Walker, 1977). His use of Makaton is mostly functional, and rarely conversational. Tim has a previous history of challenging behaviour, mood swings, and self harm, which are controlled by powerful anti-psychotic drugs. Tim is outgoing, strong-willed, helpful, considerate, and can show remarkable intelligence (Hiles, 2001).

### **Tim's drawings**

Drawing 2 is drawn from life. The chandelier, with energy saving bulbs, the smoke detector, emergency light, and junction between walls and ceiling are immediately recognisable. The detail is accurate. Tim has a fascination with lights and shiny objects. His mastery of perspective here is astonishing – something that most skilled artists would have great difficulty doing (cf. Hockney, 2001).

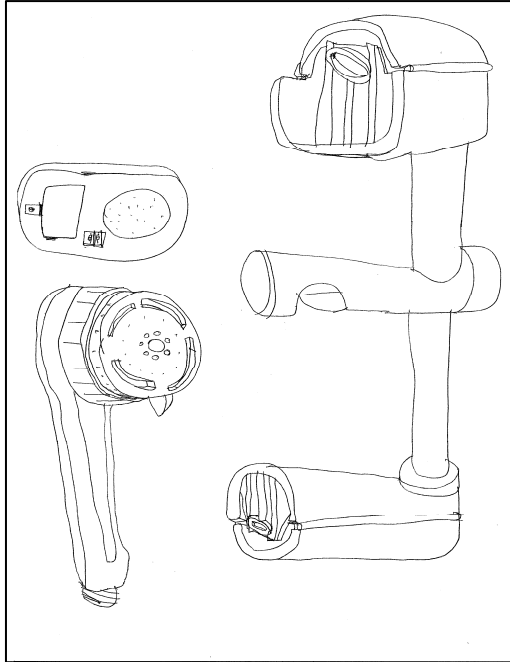
### **Drawing 2**



Tim draws spontaneously both from memory and from life. It is not very easy to get him to draw something on request. His drawing is quick and seemingly instinctive, he becomes quite “absorbed” when drawing, thoughtful and reflective, tapping a pencil on his left wrist while he thinks. In the past, he did not share his drawings, he folded them up very small, and put them in his pocket, to store them in his room later. This perhaps partly explains why his talent has gone unnoticed for so long. Using Makaton, Tim gave his permission to copy the drawings we have collected for this study.

Nearly all of Tim’s drawings use A4 size paper, and are presented here with a border showing full paper size to indicate composition. He uses a ruler for the straight lines in many of his drawings, using it effortlessly and with considerable skill. He draws with pencils, with a pen, with crayons, anything to hand.

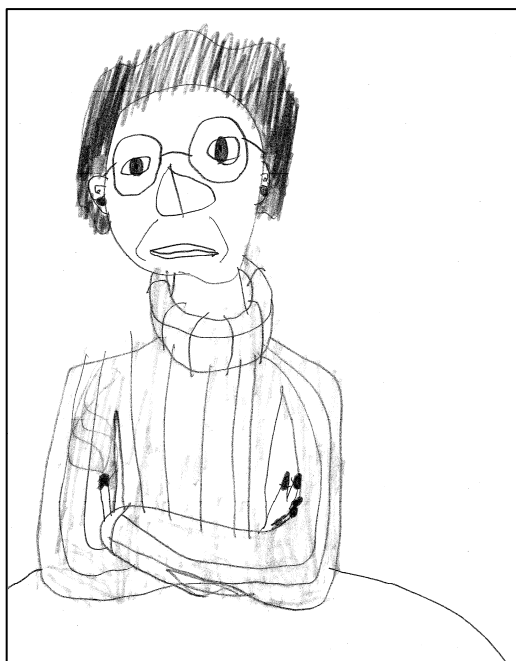
**Drawing 3**



Drawing 3 is drawn from memory. Tim had found these (shiny) objects in a cupboard, then about a week later, he sat down at his table in the day-room, and drew them from memory. The drawing took no more than a few minutes. His attention to detail is obvious. This is a good example of how his drawing involves deliberate use of lines, “as if tracing an image” (nb. this is well worth relating to the camera obscura, used by the Old Masters, as discussed by Hockney, 2001).

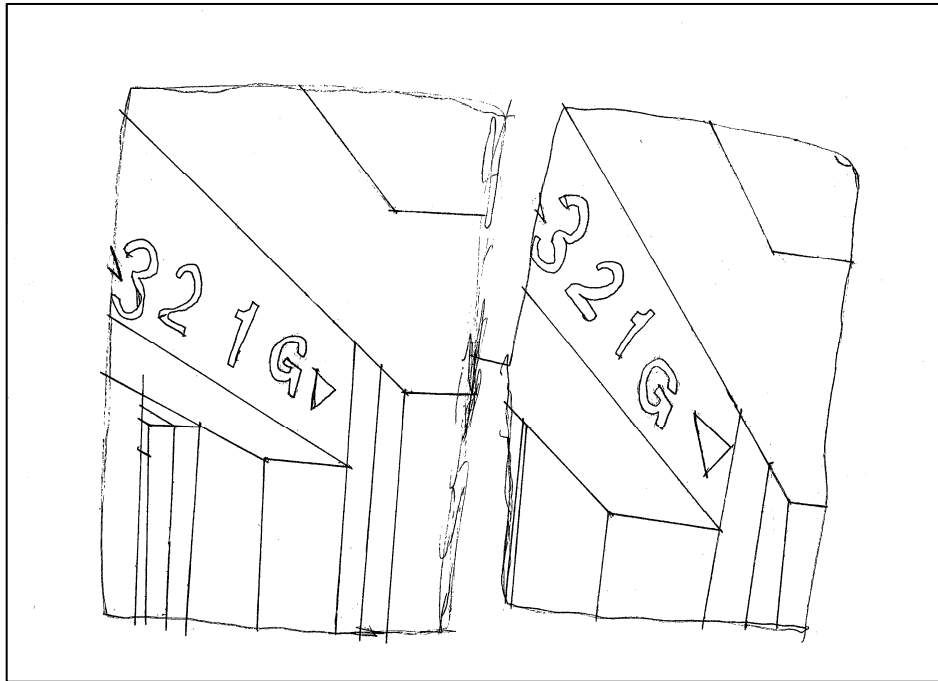
We have examples of Tim using colour accurately and subtly, that we are unable to include here. But, whatever Tim chooses to draw, the striking features are the accurate perspective, the attention to detail, and his use of quite novel points of view. It is very difficult to understand how he imagines the perspectives he chooses, sometimes choosing a point of view that he could not possibly have experienced first-hand.

### **Drawing 4**



Tim can quickly draw a good likeness. Almost anyone who knew the second author of this paper would recognise her in Drawing 4, which was drawn in colour, very quickly, in just a few minutes. She is drawn from life, sat across the table from where Tim is drawing. The drawing has the quality of a caricature, another example of Tim's untutored skills. Nevertheless, it offers an attention to detail as well, ie. the red nail varnish, the carefully matched eye colour, the round spectacle frames, ear rings, ribbed polo and the placement of the elbows on the table. But the cigarette has been added, perhaps to reinforce character, by artistic license. But this drawing also illustrates the difficulty and frustration that Tim experiences with human hair, with the texture of fabrics, and so on, that his line-drawing skills do not quite capture.

**Drawing 5**

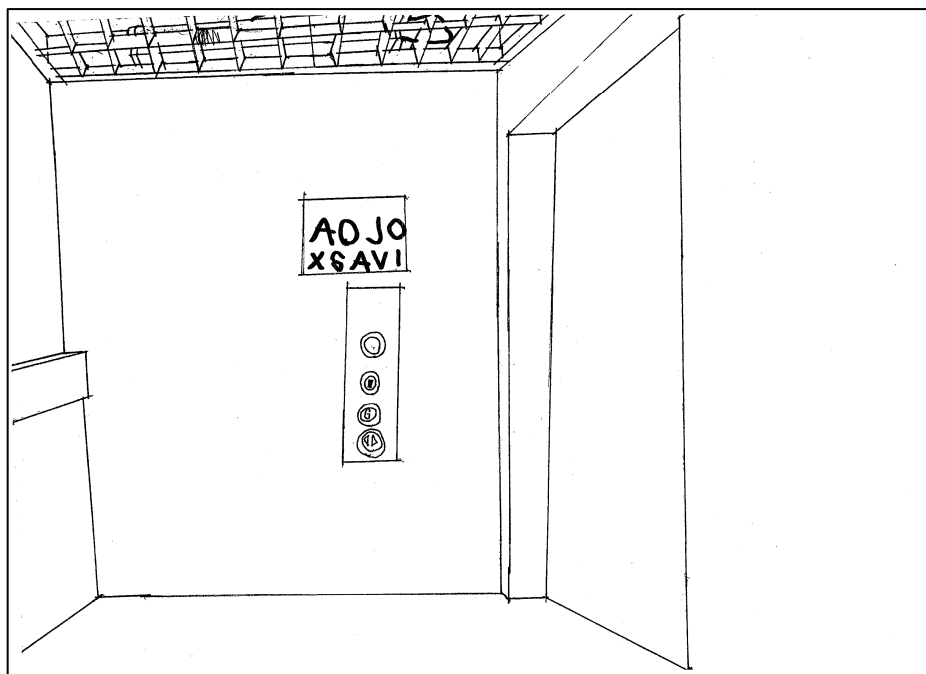


Tim draws what he wants to draw. He endlessly will draw batteries, cigarettes, tobacco tins, ashtrays, badges, and lots and lots of lifts. Drawings 5 and 6 are of lifts that he regularly uses and has drawn countless times.

These drawings deserve close attention. Drawing 5 is of the lift at the college which he now attends. The left-hand picture shows the lift doors open, or perhaps closing. The right-hand picture shows the doors closed. The perspective is striking. He has drawn two boxes in freehand, and then carefully has used a ruler to draw the three dimensional interior of the lift.

The impression created by these two pictures is that they represent two glimpses of the floor indicator above the lift door, seen from below. This is possibly something that Tim needs to pay careful attention to when getting about the college. But we want to argue that there is something quite subtle going on here as well, that is easy to miss.

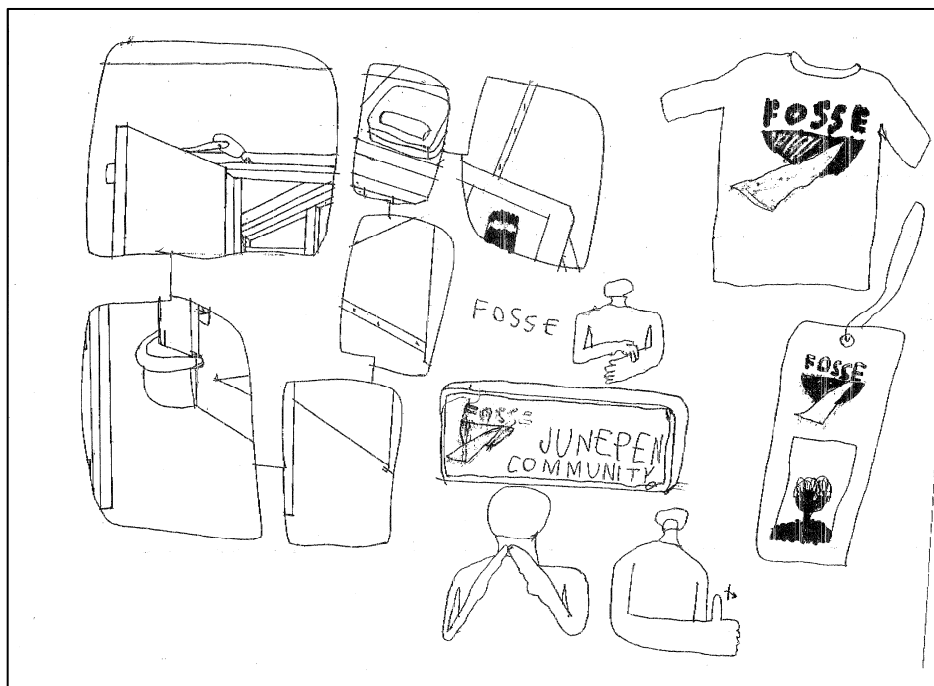


**Drawing 6**

In Drawing 6, we see the lift in the home where Tim lives. Except for the notice with the lettering (which is something he stylistically has *added*), the walls and ceiling are accurately drawn in excellent proportion. The ceiling of the lift is especially well drawn, including the loose wire that is hanging down. The number of lift buttons, and the rail along the back of the lift, are again well drawn. The drawings of the lifts in this and the previous drawing are of course drawn from memory, hours, even days after he might have last been in one.

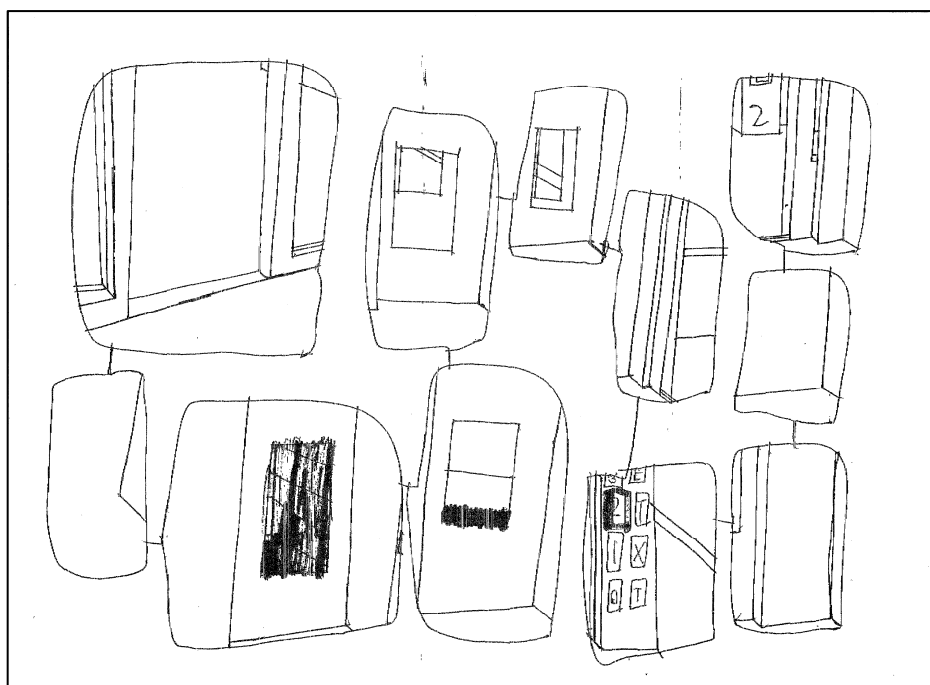
But there is a specific feature in Drawing 5 that you might easily have overlooked – the very short line that joins the middle of the left-hand and right-hand pictures. It is not a mistake, or slip of the pencil, indeed it is a feature that is used time and again in Tim's (recent) drawings. It seems to be in effect a clever narrative device.

## Drawing 7



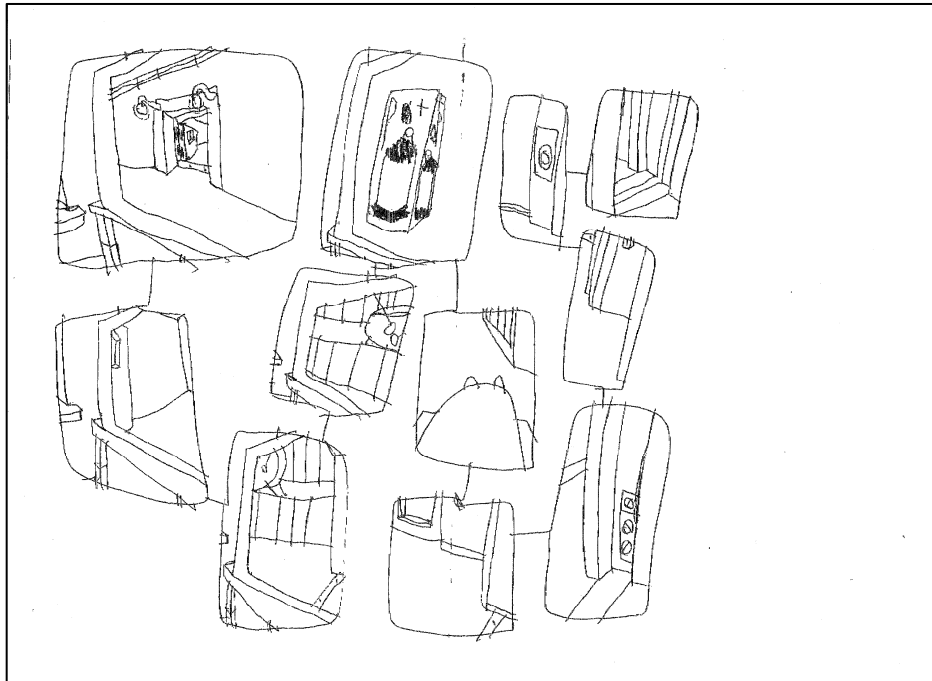
Drawing 7 is in two parts. The part on the right is a study in badges, logos on tee-shirts, and some Makaton signs. Respectively, these three Makaton signs read “nurse” (right hand touching left wrist), “okay – please be okay” (arms making a triangle), and “yes” (thumbs up – the small arrow indicating movement).

The group of pictures on the left, starting at top-left, is a trip from the day-room, through the day room door with its fire safety device, past the foot of the stairs, along a corridor, through a door-way stepping over a gripper rod, to find a tin of tobacco, and a place where you can smoke a cigarette!! This apparent narrative is laid out as a group of “pictures” down the left-hand side of the page, starting in the top left-hand corner, following the short lines joining each little picture, indicating the order in which they are to be followed. Each picture is in sufficient detail for anyone familiar with the rooms to be able to recognise them immediately.

**Drawing 8**

It would seem that Tim has developed his own visual narrative style to tell a story. We have seen many examples of this in Tim's work. Three more are illustrated in Drawings 8, 9 and 10. Drawing 8 is a typical story, starting in the top left-hand corner, following the thread through the individual pictures, finding a way through a building, to a lift, that eventually takes you to the second floor. Drawing 9 is a little different, starting again in the top left, it tells a story of watching a television program for the first five pictures, then getting up, leaving the room and possibly visiting the bathroom. Drawing 10 is a story about visiting the dentist, and was drawn at least a month after this visit. For Tim it was a very traumatic experience, (as well as for the dentist!). Starting in the bottom left, it gives an account of entering the building, looking out of a window, negotiating a ramp, then along a corridor, finally reaching a dark room (picture 10), looking up at the dentist's lamp, and meeting the dentist himself.

**Drawing 9**

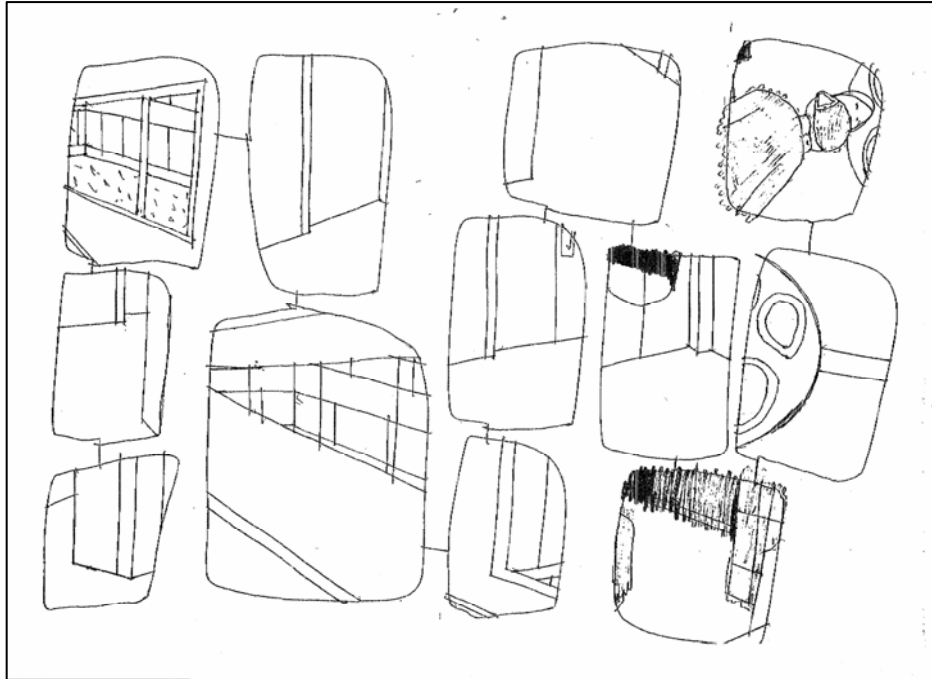


**Discussion**

There is an obvious narrative function, not to all, but to many of Tim's drawings. We do not see these as simply "route maps", or "ordered lists" – they are stories, they are accounts of previous experience. They seem to take the form of conversations Tim has with himself – stories of events sometimes long past, from novel perspectives – stories of things that matter to him, ways in which he can give expression to his own sense of identity. Tim's motivation for his narrative drawings is far from clear, but these drawings are ways in which he can express his memory for events, and they do make perfect sense within a narrative identity perspective.

As far as we can judge, no other example quite like this has ever been reported before. There are a few studies of narrative abilities of autistic and learning disabled children, but these focus on verbal storying (Roth and Spekman, 1986; Kelley, 1990).

**Drawing 10**



It is important to recognise that savant syndrome can be congenital, or can be acquired by otherwise normal individuals following CNS injury or disease (Miller, Cummings and Mishkin, 1998). Unfortunately for Tim, before he moved into his current home, his case notes had been lost by an institutional system that was not able to recognise their importance, and was not able to recognise his underlying savant skills. His life experiences, development and education have been very difficult to piece together (see Ward, 1998, and Rolph, 1998, for a discussion of the issues this can raise). However, there is indirect evidence that his disability stems from very early infancy. His interest in mechanical and electronic devices, especially batteries could be described as “autistic,” but there is also his profound hearing loss that needs to be taken into account as well. His visual narrative style could have been learned from reading comics, but he has never shown any interest in actual comics since we have known him. Tim shows no interest in reading, except in his ability to recognise signs, badges, and single numbers and letters.

We would place Tim within the scope of what is described as a talented savant, making allowance for his perhaps unrealised potential as a prodigious

savant. There are three striking features of Tim's abilities: (i) the drawing from memory, (ii) his drawing with accurate perspective, and (iii) his seeming to be able to trace mental images that he has "projected" onto the paper. These all suggest that he has a phenomenal eidetic memory. In whatever way one tries to understand Tim's amazing abilities, we believe that it is important to keep an open mind about what is to be included within the spectrum of savant skills, and the theories offered in the explanation of them. Indeed, Oliver Sacks (1995, p.215) points out that:

Savant talents ... have a more autonomous, even automatic quality than normal ones. They do not seem to occupy the mind or attention fully ... Savant talents do not seem to connect, as normal talents do, to the rest of the person. All this is strongly suggestive of a neural mechanism different from that which underlies normal talents.

### **Afterwords**

*Elaine:* At first, Tim used drawing and Makaton solely for his own needs, and would keep his pictures in his own private filing system. Then later, his drawing and use of Makaton signs opened up a once isolated world. New awarenesses were made available for him to develop his skills. He developed as an individual in his own right, becoming calmer and more able to cope with disruptions in his daily routine. Because of better communication with others who now learned Makaton, medication became less of an issue, and indeed was reduced. In my own experience, a great many individuals with learning disabilities hold very special and unique talents and excel in one specific field. Tim is a very special unique individual with whom I have had the privilege of working.

*David:* In presenting Tim's drawings we wanted them to "speak" for themselves, however, taken out of context their deceptive simplicity belies the astonishing skill upon which they are based. Also we did not want Tim to become a spectacle for research, and his identity has been carefully protected. One of the positive outcomes of our project has been that Tim began a college programme much more attuned to his needs, which included computing, woodwork and a range of art classes. Lastly, I would like to dedicate this paper in the memory of my brother, Michael. He too was born with a serious learning disability, but in later life demonstrated a skill with large (500 or 1000 piece) jigsaws that was in complete contrast to his overall range of abilities. Michael's "splinter skill" amazed me and anyone who met him. In many ways it is Tim who has helped me to more fully understand my brother's latent savant talent.

## References

- Hermelin, B. (2001) *Bright Splinters of the Mind*, London: Jessica Kingsley.
- Hiles, E. (2001) *Caring for adults with learning disabilities in the UK*, Paper presented at Masaryk University, Brno, CZ.
- Hockney, D. (2001) *Secret Knowledge: Rediscovering the lost techniques of the Old Masters*, London: Thames & Hudson.
- Kelley, M.L. (1990) Narrative story telling in autism and Down's syndrome, *Brit. J. of Development Psychology*, **8**, p.9-23.
- Miller, B., Cummings, J. and Mishkin, F. (1998) Emergence of artistic talent in frontotemporal dementia, *Neurology*, **51**, p.978-982.
- Rolph, S. (1998) Ethical dilemmas in historical research with people with learning difficulties, *Brit. J. of Learning Disabilities*, **26**, p.135-139.
- Roth, F.P. and Spekman, N.J. (1986) Narrative discourse: Spontaneously generated stories of learning-disabled and normally achieving students, *J. of Speech and Hearing Disorders*, **51**, p.8-23.
- Sacks, O. (1986) *The Man Who Mistook His Wife for a Hat*, London: Picador.
- Sacks, O. (1995) *An Anthropologist from Mars*, London: Picador.
- Sacks, O. (2007) *Musicophilia: Tales of music and the brain*, London: Picador.
- Treffert, A.D. (1989) *Extraordinary People*, London: Bantam.
- Treffert, A.D. and Wallace, G.L. (2002) Islands of Genius, *Scientific American*, (June), p.60-69.
- Walker, M. (1977) Teaching sign language to deaf mentally handicapped adults, *Language and the Mentally Handicapped*, **3**, p.3-25, Institute of Mental Subnormality Conference Proceedings.
- Ward, L. (1998) Practicing partnership: Involving people with learning difficulties in research, *Brit. J. of Learning Disabilities*, **26**, p.128-131.

