SCREEN MAGIC

How your child learns from television

Dr Norman P Erber

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Street: P.O Box 233

Postal: Clifton Hill, Vic. 3068 Australia

Tel: +61 3 9489 2825

Email: erber@bigpond.com

Website: www.hearingvision.com

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About the author

Dr Norman P. Erber is a Research Fellow in the Melbourne Graduate School of Education at the University of Melbourne (Australia). His long and varied career has included industrial engineering, experimental psychology, clinical audiology, aural rehabilitation, research into speech perception and communication, and university teaching – with 40 years' experience in the education of children and rehabilitation of adults with impaired hearing and impaired vision.

Dr Erber has created many hearing/vision assessment and therapy procedures, and developed innovative methods for training parents and teachers. He is a consultant to schools, education departments, and hearing/vision rehabilitation services. Dr Erber has published eight textbooks and over 80 scientific articles. His research interests include children's recall of television narrative.

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Chapter 2. The child

Children watch television for many reasons – for relaxation, entertainment, information, or simply because friends watch the same programs. As a result of watching television, children often learn new vocabulary and language, social skills, problem-solving strategies, science facts, and modes of behavior/appearance/style – even though these may not have been their aims. To understand television and learn from it, your child needs adequate language skills, a variety of life experiences, and a basic familiarity with the format of television programs. By accumulating experience with the sounds and images of television, your child acquires a type of *media literacy* that makes it possible to learn from other programs that contain greater and greater complexity.

What are some of the factors that can lead to increased understanding and provide your child with further learning opportunities?

Keys to understanding and learning

Children's television programs reflect many everyday situations, events, relationships, and ways of communicating that occur in real life. Even programs that include unlikely locations, fantasy adventures, and/or animation tend to be either simplifications or exaggerations of reality. Most children's television programs include either spoken or physical interaction between the on-screen characters, or some type of (simulated) interaction with the child viewer. Thus, it is likely that many of the same clues that help your child understand what happens in real life can also help your child understand what happens on television (and vice versa). Major factors that contribute to understanding include: clarity of the content, background information that contributes to meaning, a familiar narrative structure, opportunities for social/observational learning, access to the thoughts and feelings of the characters, and situations that permit incidental learning. Your child can learn many life skills from television programs with these characteristics, especially with helpful guidance from you.

Clarity of the content

One of the most basic requirements for understanding what happens during a television program is clarity in the sounds and images that are presented. Without adequate audibility, visibility, or clarity, it would be difficult for your child to recognize what the on-screen characters are saying or doing. There are three main factors that determine the clarity of sounds and images in children's television programs and the intelligibility of spoken dialog: (1) methods used in the design and production of the content; (2) your child's hearing and vision abilities; and (3) conditions in the room where your child watches and listens.

Production methods

The quality of images and the clarity of sounds differ between television programs. Ideally:

- Scripts contain words and sentences that are appropriate to the age and language level of the intended audience
- Characters produce clear speech (precise articulation, standard pronunciation, no squeaky voices, normal rate)
- Important speech sounds are audible (a wireless microphone is worn near each speaker's mouth; there is no interference or overlap from background theme music or sound effects)
- Important images are visible (foreground people and objects contrast in color and brightness with the background and scenery; the background is uncluttered; each character faces the camera when speaking).

Watching and listening

A producer of a television program generally presumes that each child who is watching and listening is able to see and hear what is presented on-screen. Some children, however, do not see or hear clearly.

Your child may have a vision impairment. The eye condition may reduce the clarity of images, an awareness of brightness differences, the ability to distinguish colors, and/or the ability to see the complete television screen.

Most young children experience temporary *conductive* hearing losses, where fluid accumulates in the middle ear, reduces the loudness of sound, and affects speech understanding. Your child may also have a *sensori-neural* hearing impairment that reduces both audibility and clarity of sound. The child may require hearing aids or cochlear implants for speech communication, and perhaps even a special device for listening to television.

Room conditions

All children have difficulty understanding speech when background noise obscures what a television character is saying. Your child may watch television with brothers or sisters who are noisy and distracting. Subtle echoes in a room can blur the quality of sound. If environmental conditions are poor in the room where your child regularly watches television, auditory and/or visual fatigue may occur, and your child's understanding of content may be affected.

Ideal room conditions for watching and listening to television (and also for communication in real life) include:

- quiet surroundings
- a carpet on the floor and soft furniture to absorb sound and reduce room echo
- no auditory or visual distractions (e.g., other children or adults talking nearby)
- a location away from windows or bright lights that produce glare

Context

The word "context" refers to the situation in which something happens, or in which someone speaks a sentence or tells a story. The situational context surrounding a spoken message might include what is happening nearby, who is speaking and listening, their relationship, and what they are doing.

When a person communicates, each spoken word is usually associated with other words, phrases, or sentences that precede or follow it. This is called *linguistic* context. Children often rely on linguistic context, the current situation, and life experience to discover the meaning of an unfamiliar word they have heard (e.g., "When Jan broke her leg, she rode to the hospital in an ambulance.").

When your child watches television, it may not be obvious what a character is saying or doing if the character speaks an unfamiliar word, a spoken sentence is too complex, or your child has not personally experienced what is happening on-screen. Your child may make sense of what the character said by referring to the *context* in which the message was spoken. It is common for children to learn from television in this way – by experiencing new words, expressions, or concepts in a meaningful context.

Some types of context that appear in children's television programs include:

- Situational (background information, location, setting: "One day, Rat-in-the-Hat was driving down Cuddles Avenue…")
- Simultaneous activity (looking, listening, pointing, showing, making: As Alex put his hand on the paper, he said, "Now draw around your fingers like this…")
- Non-verbal (facial expression, posture, gesture: When a policeman holds his hand up like this, it means "Stop!")
- Interpersonal (the relationship between characters: Mother Pig reminded Peppa, "Don't forget to put on your boots before you...")
- Sentence structure/content (word order and word relationship: "How can we find out if the table will be too big? We can measure it!")
- Linguistic (topic, narrative structure, sequential and cumulative effects: "Harry is a dog. He was very dirty. The family gave him a bath. Now Harry is clean.")
- Conversational (what one person says often influences how another person responds: "Where's your sister?" "She's at school!")

While watching television, your child may receive an unclear message and a contextual clue through the *same* sense (e.g., the sound of a school bell and then the sound of a character speaking, "It's time for _____!"; a visual image of flames and then an image of a speeding fire truck). At other times, your child may receive an unclear message and its context through *different* senses (e.g., an image of a big fish jumping from the water, and then the sound of a character shouting, "_____!")

The meaning of an unclear spoken message may be discovered from what happens before, during, or after the message.

- Before: Pingu's father tastes some food that Pingu's mother has prepared, and then says, "_____!"
- During: Pingu says "_____!" as he looks at a picture of a tall stone tower in a history book.
- After: Pingu's father says, "_____!" to Pingu, who is going camping. Pingu goes outside, takes a fish off the drying rack, and puts it in his backpack.

In each case, the visible action provides an important clue to the meaning of the character's unclear spoken message. Without that related context, the unclear message would have little or no meaning.

Narrative structure

A *narrative* is a story. People use stories to tell about the past, explain what is happening now, and influence the future. Most children are exposed to stories at a very early age. Nearly all parents read simple rhymes and fairy tales to their young children. Many children create, act out, or tell their own stories.

Some television programs produced for children contain short video recordings of familiar activities in a story-like sequence, usually accompanied by voice-over narration (e.g., children get ready for school, a woman paints a fence, a man makes a salad). Animated television programs for children usually include a sequence of related events that tell a story. Most simple children's stories follow a basic cause-and-effect structure, with a beginning, middle, and end. This familiar structure gives meaning to the physical actions and spoken dialog.

- It starts to rain. Jenny gets wet. She runs inside her house.
- Mr Crow can't read a sign. He puts on his glasses. Now he can see.
- It's bedtime. Max goes to sleep. He has a scary dream.

Longer stories typically contain more details, such as a setting, a point of view, a theme, character motivation, and plot development. A traditional narrative structure usually includes the following components:

- Setting/orientation: At the beginning of the story, the setting, situation, and main characters are introduced, usually through spoken language or visible images (when, where, who, what)
- Initiating event: Early in the story, a problem or complication occurs that changes the situation. This event may be described through spoken language and/or visible images
- Intent: The main characters are motivated to correct the situation, expressing what they plan to do with spoken language or physical behavior
- Implementation: They usually try to resolve the problem or eliminate the complication through visible action
- Resolution/consequence: The outcome may be an observable result of the characters' actions or a less observable psychological/emotional result
- Final condition: At the end of the story, there usually is a return to stability or calm

Each 5-minute episode of the children's television program *Bananas in Pajamas* contains a brief story about the main characters, for example:

Although it is a warm, sunny day, Morgan (a teddy bear) wishes that it would snow so he could play outside and make a snowman. Banana #1 (B1) and Banana #2 (B2) overhear Morgan and decide to help him. During the night, they create "snow" from shredded white paper and cover themselves with white sheets, pretending to be snowmen. In the morning, Morgan and the other

teddy bears wake up and see "snow" outside. They discover B1 and B2 beneath their snowman costumes. All are happy and play together in the "snow".

In this case,

- The *orientation* is presented through visible images of the setting
- The *initiating event* is conveyed through Morgan's spoken language
- The Bananas' response and *intent* are conveyed through their spoken language
- The Bananas' *implementation* of change is achieved through their actions
- The *consequence* is expressed by the Teddies, through their actions and spoken language

To understand a story, a child must have sufficient language, memory, and thinking skills – and also familiarity with the structure[14] of stories. In general, a child's ability to recall and re-tell an audio (radio) or audio-visual (television) narrative increases with age and life experience[15]. Younger children are more likely to recall characters' actions[16] rather than their spoken dialog after viewing a brief story on television.

Most stories that appear on television are produced with camera techniques that attract and maintain the attention of children, sound recording methods that establish a setting or mood, and editing that joins scenes together. Producers of children's programs usually try to present important parts of the story through obvious visible action or spoken dialog that clearly describes what each character is thinking, feeling, or planning. The aim is to help children comprehend what is happening at any moment in the story, and understand how current on-screen activity relates to what happened before or what might happen next.

Social/observational learning

It is common for children to imitate the behavior of people they observe every day. By repeatedly watching and listening to parents, neighbors, and friends, they learn new words (e.g., *wok*), household routines (e.g., washing hands before meals), and social formalities (e.g., saying "thank you"). Neither specific teaching nor specific rewards are required for a child to learn. A child can learn by simply observing a role model. A child is more likely to imitate a person's behavior if the person is similar to the child in some way (e.g., gender or appearance).

Observational learning[17] may be influenced by external rewards, such as acknowledgment, approval, or praise from an adult, and/or internal rewards such as a feeling of pride, satisfaction, or a sense of accomplishment. Punishment may discourage the child from displaying an undesirable behavior.

In general, for observational learning to occur, a child must:

- Pay attention to the modeled behavior
- Understand the behavior
- Be able to remember details of the behavior
- Possess the ability to reproduce the behavior
- Be motivated to demonstrate the behavior
- Have an opportunity to demonstrate the behavior.

Producers of educational television programs typically rely on a child's capacity for observational learning to achieve positive outcomes. The programs are designed to attract and maintain the attention of children in an entertaining manner, while on-screen characters model spoken language, physical skills, problem-solving, and positive social behaviors. If all the necessary conditions exist (as listed above), children can learn many things from observing favorite characters, and then imitate what they heard and saw.

Social cognition

The term *social cognition* describes the process by which a child judges another person's mental state (that is, what the other person seems to know, believe, feel, or want). The process is also referred to as a *theory of mind*[18]. This ability can help the child interpret a spoken message or predict another person's behavior. The other person's state of mind may be suggested by recent or anticipated events, the social situation, the nature of the conversation, and/or non-verbal cues. Awareness of another person's mental state is important for social functioning and can help a child coordinate relationships with family and friends.

As a child grows, the child learns that others may think or feel differently in a particular social situation. The child learns that what another person is thinking and what that person says or does may not correspond, and that this inconsistency[19] can be the basis for surprises, secrets, tricks, and even lies.

In general, children begin to talk about thoughts, feelings, and desires by about age three or four, and have acquired adult-like social awareness by about age eight or nine. A child's language ability, use of thinking/feeling verbs (e.g., spoken to a cat: "I think you want some dinner!"; spoken to a friend: "I'm feeling sleepy."), and general social competence are important factors. Pretend play, where the child learns to think about the same object in different ways (a flat lump of dirt = an imaginary hamburger), appears to be an early developmental stage. Children tend to acquire social cognition more rapidly when they are regularly exposed to conversations in which other people use words to express their thoughts and feelings.

Watching television is different from most daily communication – it is not an actual interactive experience. Although some actors speak directly to the camera, they do not respond to the behavior or spoken language the child produces while viewing the program. More often, the child *observes* communication between actors or characters on television from the child's own (third-person) point of view – or perhaps from the point of view of one of the characters (see pages 3 and 4). To understand each character's motivation, the relationship between the characters, and thus the details of a story, game, or activity, the child must try to understand each character's thoughts and feelings, and base this on whatever information is available.

A character's goal or purpose is often an important part of a story's structure. The goal may be implied by the character's behavior (e.g., shivering) or clearly stated (e.g., "All I want is a room somewhere, far away from the cold night air."). This goal may motivate the character throughout the story. In many cases, the character's success or failure to reach the goal indicates the end of the story. Although comprehension of a story often depends on awareness of a character's aim or purpose, many children emphasize characters' actions rather than their mental states when they

recall and re-tell a story they have seen on television. In contrast, adults tend to recall characters' goals and the conditions or events that led to achievement of those goals[20].

Empathy depends on an understanding of another person's state of mind. A young child with undeveloped social cognition, or an older child with impaired social cognition, is unlikely to understand a television character's thoughts, feelings, or motivations – especially if these are not clearly stated. A child with poor social awareness is not likely to comprehend the meaning of subtle cues, behavior, or abstract dialog in a television program. The child may have great difficulty maintaining attention to a story whose plot is based on complex social interactions.

Incidental learning

Incidental learning is random learning that can occur at any time and in any place. It is nearly always unplanned and unintentional, and doesn't require the child's involvement in a formal activity. Incidental learning occurs when a child discovers something new or casually watches and listens to what is happening. For example, the child may observe how other children play a game, work together, or behave in a particular situation. Most ordinary learning occurs in this way – without a teacher.

A child may learn without being aware of learning – even while "having fun". For example, children learn when they:

- Observe other children – one friend likes to eat broccoli; another friend refuses to eat vegetables; two children pretend to be cats; a young child has a tantrum in a store
- Observe animals – a small dog licks a big dog's face; a father bird feeds his baby in the nest; worms and snails move without legs
- Observe nature – new plants sprout in spring; some flowers close at night; lightning always precedes thunder; there is less daylight in winter; bees make honey
- Interact with other children – a friend has a pet lizard; a friend has seven brothers and sisters; a neighbor was born in another country; a cousin has a rock collection
- Interact with objects/materials – mix red and white → get pink!; you can't cut metal with scissors; wash your paintbrush, or it will be ruined
- Experience – it's cold outside → wear a coat and hat; if you fall down you will hurt your knee; the stove may be hot → be careful!
- Find something – a leaf, rusty nail, empty water bottle, dead butterfly (Draw a picture of it. Where did it come from? Write a story about it.)

Incidental learning may be compared with *intentional* learning. Intentional learning is usually prescribed or initiated by someone else (e.g., a teacher who directs the child's attention and points out important features). Incidental learning may occur unexpectedly during an intentional learning activity. A child may learn from a distracting or unwanted feature of the surroundings: a broken toy in a corner; a helicopter flying overhead; a spider spinning a web; or even dust under the furniture. Incidental learning occurs when a child attends to what may be described as the *background*.

Children may shift their attention between the foreground and background while observing a scene or activity, and acquire information from *both* locations. Inquisitive children who actively scan their surroundings for items of interest are said to express "creativity"[21]. Children who are often

distracted by objects or activity in their surroundings, however, may be described as having an "attention deficit disorder"[22].

What can a child learn from watching or listening to background details during a television program? Specific objects, scenery, theme music, and sound effects are often included to provide the young viewer with important information regarding the situational context in which foreground dialog or activity occurs. In many cases, the spoken language or action observed in the foreground derives much of its meaning from what appears in the background.

If the screen is cluttered with too many attractive objects or too much activity, however, the child may have difficulty understanding what is happening in the foreground and recalling important content. If background sounds or images are not directly related to the main content of the program, this may interfere with the child's ability to remember details. When screen images are complex, younger children may have greater difficulty identifying important information than older children.

Adult co-viewing and related activities

It is common for young children to learn communication skills from familiar adults while participating in daily activities such as cooking, washing clothes, pet care, or bath time. You can easily convert activities like these into learning opportunities, for example, when steaming vegetables, measuring washing powder, feeding the dog, or searching for a bath toy. You are likely to expand your child's language as you respond to what your child says in each situation.

In a similar way, you can help your child benefit from watching television through simple role-play – to help your child understand each character's thoughts, feelings, motivations, and actions. You can provide basic art/craft materials, dolls, or toy animals that enable the child to mimic what is seen and heard, and to play in parallel with the characters. You can help your child understand what is happening on television by answering questions and expanding expressive language.

Co-viewing a television program with a young child can facilitate the child's language development in ways that are similar to co-reading a picture book. Both activities include shared attention to an image, reference to details, repetition of dialog, description of an activity, and questions to clarify meaning. Follow-up discussion and related activities can help the child learn new vocabulary, understand relationships among the characters, become aware of cultural differences, and develop prosocial behavior.