

Verbal Thinking and Nonverbal Thinking

Very different ways to process Life and the World

Marcia Hart

Time to think about different ways of thinking!

This means we must move away from words, from verbal language, and access our sensory-based thinking world that is hidden under all our verbal language activity. Let us start by using Temple Grandin's definition for thinking - thinking is solving a problem under a new condition. The way each one of us goes about thinking and solving a problem under a new condition can vary greatly.

Verbal Thinkers

Most of us are familiar with Verbal Thinking because it is the way many of us think most of the time, and the basis of most of our education in school. Since verbal thinkers make up a large population in schools and most of our teachers, teachers automatically do their best to explain and teach verbal thinking and processing. They *talk about* ideas, objects, and events, instead of providing immersion in multi-dimensional sensory experiences of their teaching materials and concepts.

Verbal Thought is linear by nature. It's the voice that you hear in your head saying each word of a sentence either silently or aloud, whether you are reading or not. Verbal thinkers can only think as fast as they can speak, and some of them speak very quickly. (Bill Allen conversation, 8-2020)

Verbal Learners can overlook a lot of details because their thinking depends on words and the assumptions inherent in them. One word, e.g., house, can indeed represent a multitude of possible image-meanings, such as different house styles, sizes, colors, structural materials, and whether standing alone or close to or connected to other structures. However, the verbal thinker is not concerned with all these details as they use the word house in a sentence. The context of the rest of their words usually gives pertinent information about the kind of house they have in mind, and how important it may be to know exactly what it looks like.

Nonverbal Thinkers

“Nonverbal intelligence is the ability to analyze information and solve problems using visual or hands-on **reasoning**. In other words, it is the ability to make sense of and act on the world without necessarily using words.”

(Ann Logsdon, **The Importance of Nonverbal Intelligence**, 2019 <https://www.verywellfamily.com/what-is-nonverbal-intelligence-2162165>)

Nonverbal thought is generated using our God-given senses: sight, sound, touch, smell and taste, as well as through the kinesthetics of movement and touch,

feelings/emotions, intuition, and imagination. When reading written material, sight and sound are the most used senses. Some nonverbal thinkers may be more skilled thinking in pictures – they remember all that they saw or imagined internally; and other nonverbal thinkers tend to think best in sound patterns – they remember hearing everything that you said or that they heard. (Bill Allen conversation, 8-2020)

Nonverbal Thinkers mainly think in pictures and sensory patterns created in their brain, below conscious awareness. They identify words and objects by viewing them from an infinite number of visual perspectives and relating the perspectives to their images already in memory. They think with 3-dimensional, multi-sensory images that evolve and grow as their thought process adds more information or concepts. This nonverbal thought process happens so much faster than verbal thinking and often is subliminal (below conscious awareness) – explaining why dyslexics are often unaware of errors and images, or how they solve a problem.

“Picture-thinkers experience little, if any, internal “dialogue” sounds, therefore, reading through phonics is nearly impossible, always frustrating, and sometimes painful. Attempting to teach phonics to a picture thinker is often as impossible as trying to download a Microsoft PC program onto an Apple device! “

(Susan Smargesse, **Thinking Style**, Reading Solution of Central Illinois.
<https://www.readingsolution.com/dyslexia/thinking-style/>)

Nonverbal thinkers can internally run a movie of the design, idea, or activity they have in mind. In this way they are also able to test it out to see how it would work, and they can find where the flaws are in the design concept, before building it. They are *bottom-up conceptualizers* ... they start with a myriad of visual pieces and combine them to build a concept of the whole. Verbal thinkers work in the opposite direction, *top-down conceptualizing*. They consider verbal theories without any actual sensory experience of them. Their thinking is distanced from having an actual sensory experience of what they talk or think about. (Susan Smargesse, **Thinking Style**, Reading Solution of Central Illinois. <https://www.readingsolution.com/dyslexia/thinking-style/>)

Visual Reasoning

The speed of picture thinking is nearly incomprehensible. It is multi-dimensional and multi-sensorial, while verbal thought is linear and follows the structure of language. Visual thinkers tend to be very intuitive. They come to brilliant solutions without being able to tell you how they found them. For example, a child correctly solves a math problem on a test and cannot show their teacher how they came to the solution. Their reasoning is multi-dimensional, based on multiple sensory experiences, and not dependent on linear (two-dimensional) analysis.

Picture-thinkers observe all the details of the visual “pieces” that they perceive. The collection and processing of the ever-growing inventory of images is cumbersome and can be a disadvantage of this thinking style. When these thinkers gather a lot of sensory data, pictures, into an internal scaffold of interconnected categories to sort through all the possible images

they think, they become more versatile and able to create a concept to identify the solution to their problem, to give them their answer to a question, or to direct their action.

Dogs, horses, monkeys, and all animals reason without verbal thinking! And, by the way, so do many humans, including many individuals who are dyslexic, have a high percentage of nonverbal thought.

The minds of visual thinkers are associative in their thinking, not linear. For example, a dog who learns to not bark at home, may bark in a car – this occurs because another learning association, that of in-car-no-barking, is required to change their car behavior. Animals learn new behaviors and find solutions to challenges through processing their sensory thinking (bottom-up thinking; collect many pieces of sensations, images, until they can categorize them into a concept, or a new action that brings them desirable results).

Their picture thinking can lead them to discover Big-Picture insight. We and the world need this kind of thinking. The concepts of visual thinkers are the result of linking and associating a series of images and to their databank of remembered images, until there is a flash of visual thinking insight. When there are no images, there is no thinking for the nonverbal thinker!

In contrast, verbal thinkers, who are most people, are top-down thinkers. They start with a theory and then look for details, data, to confirm it. Their solutions to problems and challenges come from theory-driven thinking. In contrast, visual thinkers who are designers and architects can envision, try out in their minds, and layout designs for the construction of objects, events; or who are engineers can implement designs to make them out of all the available pieces of experience they have available to combine into the new pattern, object, event. (Temple Grandin, **The Mind of a Visual Thinker: Photo-Realistic Thinking**, University of California lecture, 2008. <https://www.youtube.com/watch?v=qjAmzeW0fPs>)

A Mixture of Non-Verbal and Verbal Thinking

All of us have times of nonverbal thinking – perhaps we know something suddenly, and act on it to find out if it works. And individuals who start out as nonverbal thinkers develop verbal language skills where they learn words to describe what is in their environment, how they feel about these things or events, and how to ask you to bring them what they want or need. At the verbal *speaking* level, they can be as intelligent and articulate as the predominantly verbal thinker.

So, Why Is Learning to Read English So Difficult?

Why isn't it like learning to speak English?

Long before mankind had spoken language, individuals communicated with sounds, touch, and movement – such as meaningful grunts, growls, hisses, squeals; nudges, taps; turn toward something, or turn away from something else. Spoken language developed organically as the

brain and needs of humankind evolved over the last 100,000 years. Written language has only been on the scene for the last 5000 years. We are now all born biologically wired to learn to understand and speak in the way we hear a language spoken to us. However, the human brain has not yet had sufficient time to evolve a biologically inherent ability to learn to read written language.

Learning to read is a cultural invention, not an automatic evolution like verbal communication. Alphabets had to be developed for different cultures (think of how different the Japanese alphabet is from the US alphabet) to capture their words and sounds, and to build a system of written words, written codes, that when read, give meaning to their spoken language.

Along with the development of written language grew the need to learn how to read and write it. Reading English, the way it has been taught in recent times, requires access to a largely verbal-based neural circuitry in the brain that can decipher the code of written letters and sounds given to the letters and words, and find meaning in this translation of what is on the page and what it sounds like when read out loud. This style of “thinking” is not always the strongest “thinking” style of all young readers, and these young children may not learn to read as fast as their peers seem to. It is important that this group of young children have tools that can help them make the leap from their style of fundamental thinking style to finding meaning in words written on a page.

Why is Nonverbal Intelligence Important?

“In school, nonverbal intelligence is important because it **enables students to analyze and solve complex problems without relying upon or being limited by language abilities.** Many mathematical concepts, physics problems, computer science tasks, and science problems require strong reasoning skills.

In addition, it is **nonverbal intelligence that allows us to think through, plan for, and implement projects.** We also use nonverbal intelligence **to organize and manage our time and our belongings.**

Outside of school, nonverbal intelligence may otherwise be described as "**common sense.**" While a person with common sense may or may not score high on a typical Standardized Test, it is their common sense that gets them through their days. A person who scores high on a Standardized Test may not have the basic nonverbal skills to, for example, go to the grocery store before the food runs out at home, put together a build-it-yourself piece of furniture, or figure out how to organize papers in a notebook.”

(Ann Logsdon, **The Importance of Nonverbal Intelligence**, 2019 <https://www.verywellfamily.com/what-is-nonverbal-intelligence-2162165>)

The Future of Education for Visual Thinkers

Our dyslexic children, who tend to think in a high percentage of pictures need to be taught with 3-D tools respecting their predominant thinking style.

Some students ask, “why do we need to know this?”; other students say, “tell us what to do so I can do it.” These two kinds of students have different needs. Dyslexics tend to be the latter kind of student, at first, when trying to learn to read using phonics and phonemic awareness – they keep asking you, with their failures and persistence to succeed, to show them how to read so they can read. They really want to learn to read. They have already learned as little children to love the stories read to them out of picture story books – the pictures stimulated their sensory experience of the stories they heard read to them. Through their picture thinking, they became involved in the story – they were not just listening to words telling them a story.

Later, after experiencing a lot of confusion, frustration, and failure in attempting to learn to read the words of stories using conventional teaching methods, these students can become the rebellious student who challenges with “why do I need to know how to do this? Show me how I will use it to live my life.” They demand to know how all the phonics-based isolated sounds and symbols and abstract written words without physical associations will help them learn to read, because they make little sense to them.

We need the creativity, insightful intuitive flashes, designs, and ideas of our young who are predominantly visual, nonverbal thinkers. Their unique insights can lead to developing a world that grows beyond the limitations of what is known today and keeps improving our lives.

The team at Magical I Am is dedicated to helping these visual and multi-sensory thinkers learn to read by providing 3-D tools that build on the skills and learning needs of their thinking style. The goal is: Learn to read, so you can read to learn.

As Erica Tempesta stated:

“One thing I wish my team did for me growing up was to explain what dyslexia was and how my brain worked. I wish more time was spent on my strengths than on my struggles.”

(Erica Tempesta, Dyslexic Woman Reveals What it is Really Like to Live with the Disorder. Oct 9, 2020, published for Dailymail.com)

Learn to Read, so you can Read to Learn.™