DOCUMENT SUMMARY

In this profound personal and philosophical essay, Dr. Temple Grandin challenges the idea that consciousness requires language, using her own experience as a visual thinker to argue for the validity of sensory-based consciousness. She posits that autistic individuals and animals think consciously with what is typically called the "subconscious," a mode of thought that is more direct and less filtered by language. This paper is essential for Enlitens as it provides a powerful, lived-experience framework for validating non-verbal, associative, and visual ways of being, framing them not as deficits but as different and effective forms of consciousness and problem-solving.

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METADATA

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CRITICAL QUOTES FOR ENLITENS

"Some philosophers think animals are not conscious because they do not have language. I am autistic and I think in pictures. If the philosophers are correct, I would have to conclude that I am not conscious."

"Language is used to narrate the visual images that form my thoughts."

"I think consciously with the part of the mind that most people would call the subconscious."

"I finally figured out that what FREUD called the unconscious is the part of the mind that people with autism and animals think with. If one thinks without language one has to have sensory based thinking."

"1 hypothesize that in normal humans, language based thinking blocks access to more detailed sensory based thinking. Perhaps language blocks access to the subconscious."

"I have learned by interviewing highly verbal thinkers that their thoughts are in language and they do not consciously see choices. Language may be another layer of thinking which covers up the visual pictures. I have no purely abstract thoughts. I only have pictures."

"Donna WILLIAMS, a verbal writer with autism, explains how her senses fragment (WILLIAMS 1988). She writes It ongoing conscious awareness is a luxury that an overloaded nervous system cannot afford" (WILLIAMS 1998, p239)."

"To conclude, maybe consciousness is like GARDNER'S (1983) different types of thinking. Consciousness may vary in both type and complexity."

THEORETICAL FRAMEWORKS

Consciousness Without Language The central thesis of the paper is that language is not a prerequisite for consciousness. Grandin argues that her own thinking process, which is entirely visual and sensory-based, is a form of true consciousness. Language serves as a secondary narrator for the primary "videotapes" that play in her imagination. This challenges philosophical and scientific traditions that tie consciousness inextricably to internal linguistic dialogue.

Thinking with the Subconscious Grandin posits that autistic individuals and animals think consciously with the part of the mind that non-autistic, language-based thinkers would label the "unconscious" or "subconscious". In this model, language in typical humans acts as a layer of processing that filters or "covers up" the more direct, sensory-based thinking that she experiences. She cites evidence from frontotemporal dementia, where artistic and musical talents can emerge as language centers of the brain are destroyed, suggesting language can inhibit access to these primary perceptual abilities.

Visual Concept Formation Grandin provides a detailed methodology for how non-verbal, abstract concepts are formed through a bottom-up, sensory-based process.

- **Specificity**: Visual thinking is highly specific; there is no "generalized concept of a dog," only a collection of specific dog pictures in memory.
- Categorization: Concepts are formed by sorting these specific visual images into categories. This is a process of finding a common, concrete sensory feature that defines the category. For example, she learned to differentiate all dogs from all cats by identifying the unique shape of a dog's nose as a defining feature.
- Abstract Concepts: Even abstract concepts like "good and bad" are formed by creating
 categories of specific, concrete visual experiences (e.g., pictures of being punished for
 breaking a window vs. being praised for helping) and then identifying a common feature
 (e.g., "bad behavior hurts other people").

Levels and Types of Consciousness Grandin concludes that consciousness is not a single, monolithic entity but likely exists in different forms and levels of complexity, analogous to Gardner's theory of multiple intelligences. She proposes a hierarchy:

- 1. Consciousness within one sense: e.g., insects using visual images to navigate.
- 2. Consciousness of aversive stimuli: e.g., fear in fish.
- 3. Integrated sensory and emotional consciousness: e.g., dogs and birds.

- Consciousness with incomplete emotional integration: The category she places
 herself in, where intellect is high but connections between the frontal cortex and limbic
 system are different.
- Language-based consciousness: She observes this is often present in people who are poor at art, suggesting a trade-off between specialization in language and other forms of thought.

METHODOLOGY DESCRIPTIONS

First-Person Account of Conscious Decision-Making Grandin provides a detailed, step-by-step account of her non-verbal, visual thought process while making a conscious decision to avoid hitting an elk on the highway. This serves as a qualitative "methodology" of visual consciousness.

- Trigger: Seeing a bull elk running across the highway at 70 mph.
- **Visual Options Generation**: "Instantly, three pictures appeared in my mind. Each picture represented the end result of an option available to me".
 - **Option 1**: A picture of a car rear-ending her car (the result of slamming on the brakes).
 - Option 2: A picture of the elk smashing through her windshield (the result of swerving, which might cause the elk to stop).
 - Option 3: A picture of the elk passing harmlessly in front of her car (the result of gently applying the brakes).
- **Conscious Choice**: The three pictures appeared sequentially within one second, like clickable menus on a webpage. This allowed her to "selectively compare the options and choose the slow down gradually picture".
- **Execution**: She then "clicked a mental mouse on the 'slowing down gradually' picture" and performed the action.
- **Conclusion**: "The conscious choice was a visual process without the use of internal verbal dialog". This process is only possible when there is time to think; in a panic situation (like hitting ice), instinct and reflexes take over and no option pictures appear.

POPULATION-SPECIFIC FINDINGS

Fragmented Consciousness and Sensory Integration in Autism Grandin describes how autistic consciousness can become fragmented, particularly under sensory overload.

- **Sensory Overload**: She cites author Donna Williams, who states that "ongoing conscious awareness is a luxury that an overloaded nervous system cannot afford". This frames shutdown as a necessary physiological response, not a behavioral choice.
- Lack of Integration: Grandin describes her own experience of having impaired emotional consciousness, where thoughts and emotions are not fully integrated. She notes that a brain scan showed a missing circuit between her frontal cortex and amygdala (the brain's emotion center).
- **Multitasking Difficulties**: Many autistic people, including herself, have problems with multitasking and difficulty processing auditory and visual information at the same time.

• Analogy to Lower Animals: She hypothesizes that the fragmented consciousness experienced during severe autism might be similar to that of lower animals like snakes, which do not seem to integrate information across different sensory channels (vision, smell, touch) into a single, centralized representation of the world.