Questions and notes (SEDIVY ch. 3, part I)

What were the cognitive abilities to which the emergence of human language was linked?

What particular features of this language could support communication and information transfer?

What is the relationship between language usage, behavior and functions, on the one hand, and the brain, on the other?

*BRAIN is a lump of dense tissue of interconnected cells*

*LANGUAGE a phenomenon organized within neural pathways of the neocortex and also within the brain*

***BRAIN*** *is inscrutable.*

***BRAIN is the language organ.***

But what are the language subsystems in the brain?

 Is combining sounds > words in the same system as combining words > sentences?

 Is understanding word meanings in the same system as choosing words to convey what’s intended?

What sort of **genetic disorders** is evident in language usage, and specifically how?

What aspects of non-linguistic cognition are genetically damaged in **Williams’ and Down’s** syndromes, respectively?

Why is it critical to correlate “normal” language usage with age?

To what should one pay attention in evaluating language skills that appear normal on the surface?

What’s the linguistic implication of the fact that brain functions (e.g. word recall, understanding while reading or seeing) don’t match unambiguously against brain tissues and neural pathways?

What sort of language usage seems to indicate “double dissociation”?

What insights about language functioning within the brain can we gain from studying genetic disorders and of what general cognitive functions do we become aware when studying Down’s or Williams’?

How would you define a genetic disorder?

What speaker groups with genetic disorders can be compared to yield useful comparisons?

*Language is a fortuitous assemblage of non-linguistic and linguistic pieces required to make language work.*

*In the brain, functions do not align unambiguously with brain tissues and neural pathways.*

*Linguistic cognition and general cognitive functions are intertwined in brain tissue and pathways.*

*There is no separate, identifiable language module dedicated to just language that would be independent of intelligence/general cognition. How to interpret “double dissociation”?*

*If language is an "outgrowth" of our intelligence, which is genetic, then genetic anomalies are evident in language.*

*GENETIC ANOMALY involving language and involved with the brain/ genetic disorder of language (thought) and behavior*

*is manifested in certain selected cognitive functions that are reduced rather than all of cognition > associated gene-targeted functions grouped into a SYNDROM*

Is this selection i.e., the syndrome directly manifested in brain?

Why can’t language function well if general intelligence is impaired?

*PROBLEMS of diagnosis:*

*Down’s children hugely underperform their age in language uses, and this cognitive weakness shows in doing maths and understanding spatial relations as well*

*In Williams’ syndrome adults, superficial language usage may seem extraordinary (but compared to whom?!) when judging by word complexity and sociability but this typically only masks weak syntax*

p.60 – non/linguistic tests to Down’s or Williams’ people

***Specific language impairment and dyslexia*** *vs. genetic anomalies*

*are related to general cognitive skills and manifested in impaired language*

What is specific about the specific language impairment? Whom does it affect?

Why are adults coping with SLI problems, too, if not diagnosed early in life?

What’s peculiar about cognitive and syntactic processing of events represented by speech and pictures by speakers with SLI (as in the picture of a cow and donkey kicking in Sedivy)?

What are some of the abnormalities in language usage associated with the specific language impairment and in what aspects of usage are they typically manifested?

In what ways is dyslexia like specific language impairment?

Is there a gene responsible for reading? Why or why not?

What are some of the language functions turned on when one reads, i.e., in what particular ways is our cognition activated?

Can dyslexia be treated?

*Figure 3.2 Testing syntactic skills of SLI-diagnosed speakers*

*Web activity 3.1* [*http://sites.sinauer.com/languageinmind/*](http://sites.sinauer.com/languageinmind/)

The Divided Brain*, Ian McGilchrist*, *TED Talk*