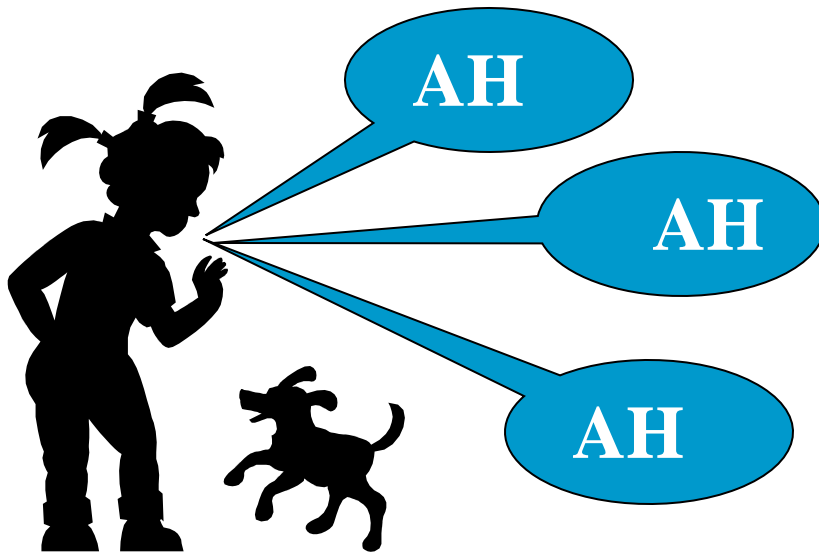


Most Common Definition



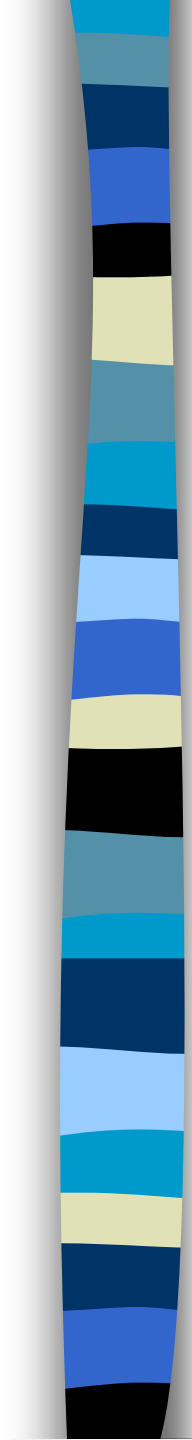
**□ STUTTERING IS A
DYSFLUENCY OF VERBAL
EXPRESSION
CHARACTERIZED BY:**

–repetitions of linguistic units (part- whole - or multi-syllabic in length)



**– abnormal prolongations
(audible or silent)
of an articulatory
and/or
laryngeal posture,
and/or**

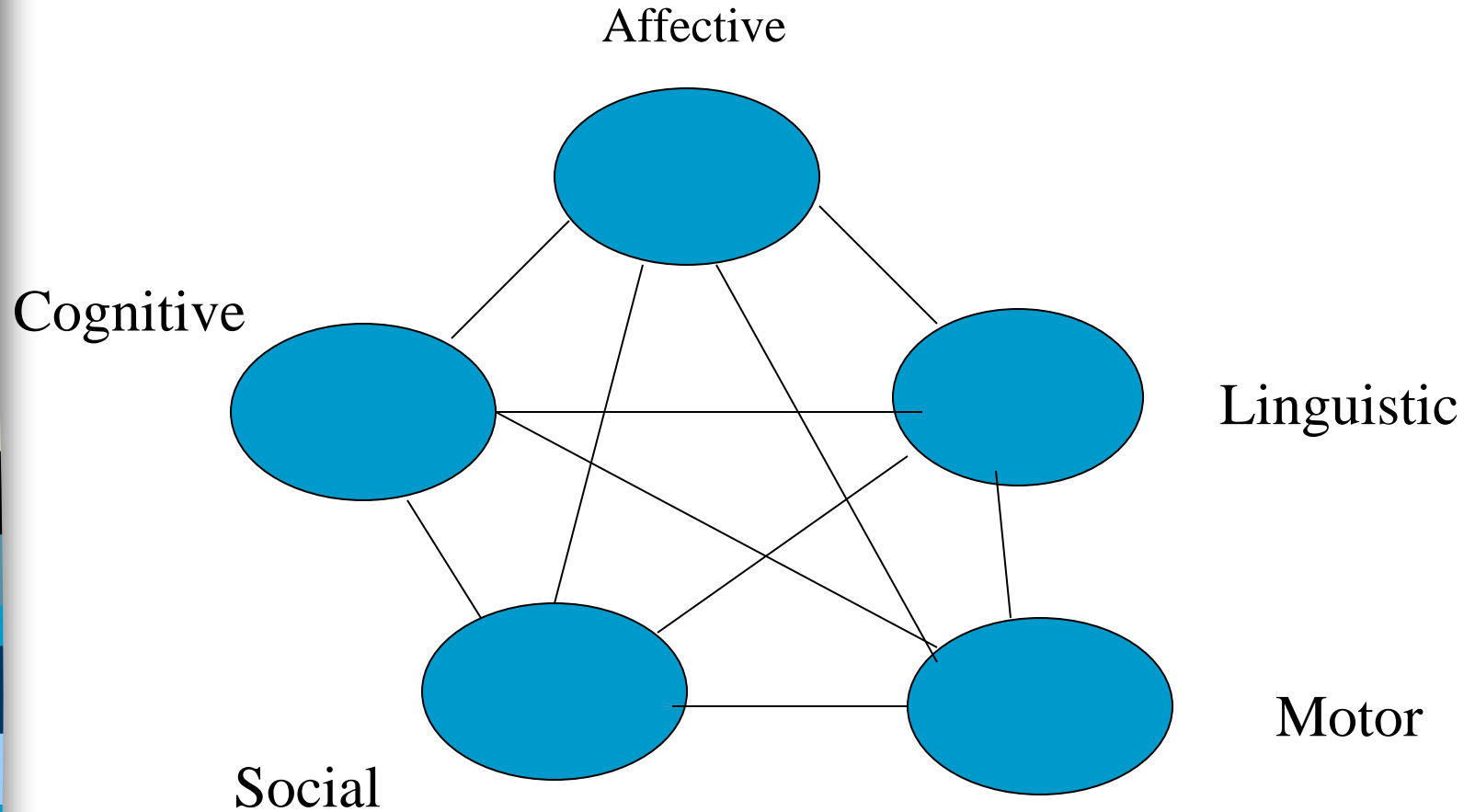




–interjections of extraneous sounds or syllables into the utterance that are judged not to be meditative, circumstantial nor emphatic in nature.



Multidimensional Model of Stuttering



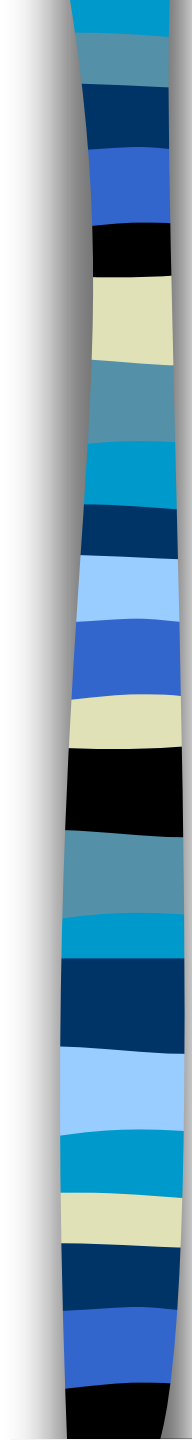
E. Charles Healey, Ph.D.



Language & Stuttering

□ **Yairi, et al., 1996**

- **Language screening scores predict chronicity**
- **Onset during rapid period of language growth (lexical spurt, morphological acquisitions)**

- 
- Possibility of expressive-receptive gapping in abilities**
 - Stuttering gravitates toward grammatically incorrect productions, utterances with higher TTR, MLU**



Phonological Factors

- **Yairi et al (1996)**
 - **at onset, no evidence of phonological disorder**
- **Throneburg et al (1995)**
 - **stuttering does not appear to gravitate toward late-acquired or errored phonology**



Syntax

- **More disfluency on newly acquired linguistic structures**
- **more stuttering and disfluency on complex structures**
- **syntactic complexity more highly correlated with utterances stuttered than with length**
- **MLU better predictor of stuttering than syllable length of utterance**



Bilingualism

- **Syntactic loci remain constant across languages in bilingual adults, while phonetic loci vary**



Metalinguistic Factors

- **It is possible, at onset, that stuttering children demonstrate hyperfunctional self-monitoring**
- **As children mature, they develop understanding of word boundaries, sounds, addresses, probably leading to anticipatory behaviors**

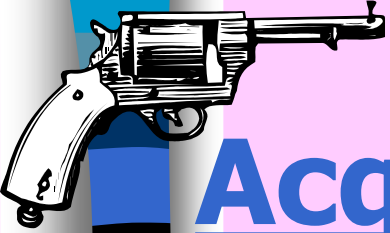
**If stuttering develops,
with no observable cause,
it's called**



IDIOPATHIC

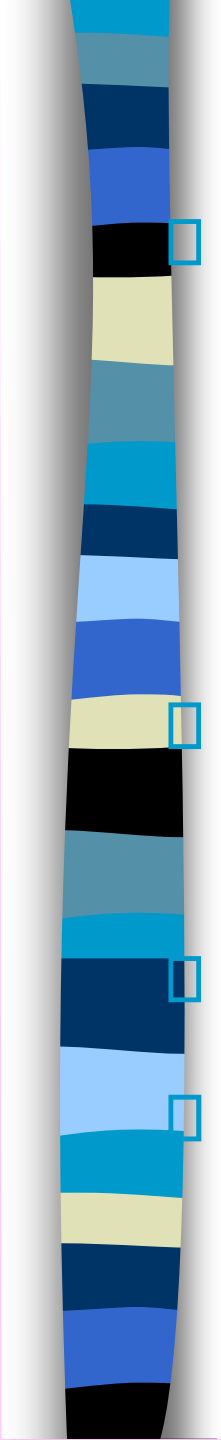
(as opposed to

ACQUIRED)



Acquired (neurogenic) stuttering

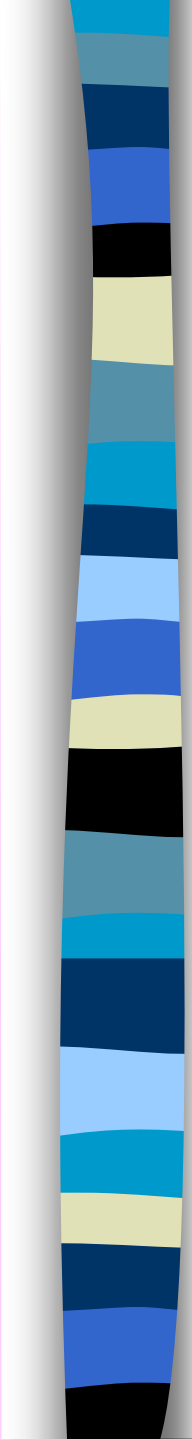
- **Different than ideopathic**
- **acquired after childhood due to CNS damage**
- **usually no previous history**
- **causes: strokes, head trauma, tumors, dementia, drug usage, anoxia or a penetrating missile to the brain (bullet)**

- 
- **Dysfluency behaviors: repetitions, dysrhythmic phonations, not restricted to initial syllables**
 - **no secondary struggle characteristic**
 - **can be dysfluent on any word**
 - **no observable adaptation effect**

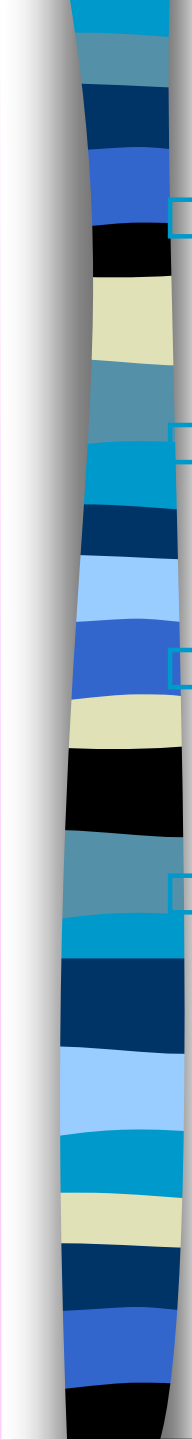


Different Than Cluttering

- “a disturbance of fluency involving
 - **an abnormally rapid rate and**
 - **erratic rhythm of speech that**
 - **impedes intelligibility.**
 - **Faulty phrasing patterns are usually present so that there are bursts of speech consisting of groups of words that are not related to the grammatical structure of the sentence.**

- 
- **person is usually unaware of any communication impairment**
 - **difficulty in self-monitoring.**

- Cluttering: Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R)

- 
- cluttering and stuttering are related but separate disorders.
 - frequently have concomitant disorders of articulation and language.
 - fluency problems in clients who clutter typically are remediated indirectly.
 - Cluttering therapy should involve the family as well as professionals in allied health and educational fields.



Spontaneous Recovery

- estimates of range from 40-80%
- Wingate (1964) ID'd 50 recovered stutterers
 - recovery was during adolescence...
 - was gradual
 - related to change in attitude
 - was related to doing a lot of speech practice



Tentative research results

- may be a decreasing probability of recovery with age
- more mild than severe stutterers recover
- quality of recovery may be superior among those who recover at younger age

- 
- **Recovery usually described as a gradual process and may be characterized by longer periods of remissions between recurring episodes of stuttering**

- 
- **does not appear to be related to age of onset, familial incidence or treatment type/program**




Factors to which recovery may be related

- **speaking more slowly,**
- **relaxing,**
- **acquiring new attitudes toward
self or speech problem,**
- **speaking more,**
- **speech therapy**

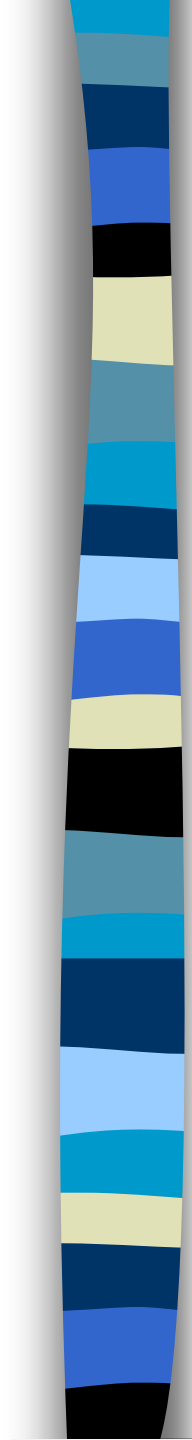
Terms you should know:



FLUENCY:

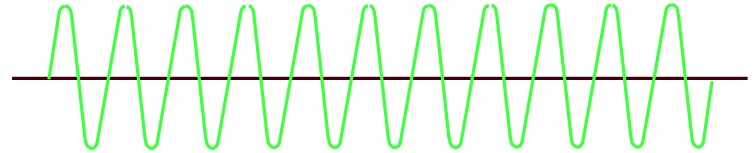


**The speech of people
who do not stutter; the
nonstuttered speech of
stutterers**

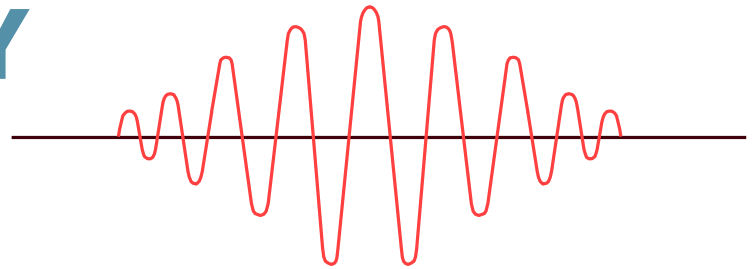
- 
- ***disfluent***: the nonfluent speech of people who do not stutter; the nonstuttered, nonfluent speech of people who do stutter
 - ***dysfluent***: the stuttered speech of stutterers; the stuttered speech of people who do not stutter usually

-Starkweather (1986,1981)

□ RATE



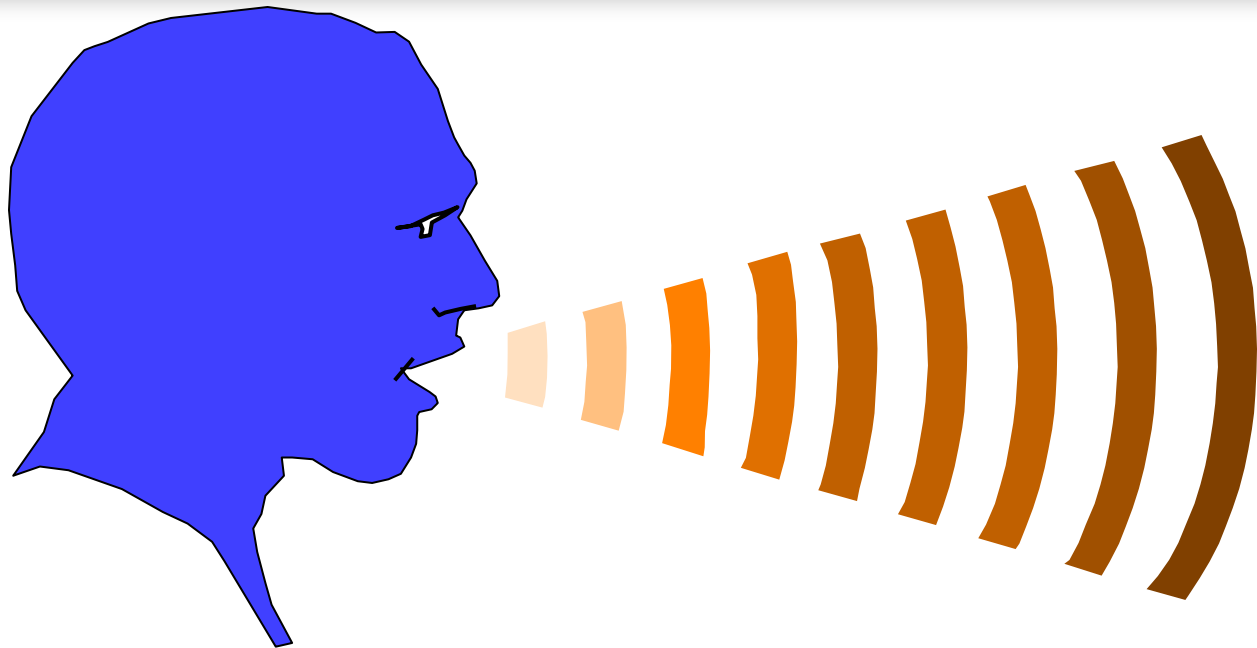
□ CONTINUITY



□ EFFORT

□ **affected by ongoing and shifting factors such as information load, predictability of utterances and situational factors.**

RATE: The speed with which
the elements of speech
are produced



Continuity



**From
moment to moment
of utterance**

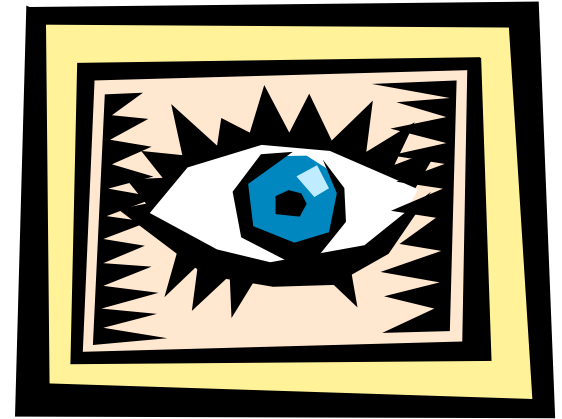
RHYTHM



**Timing of the
elements of speech
Reflects Effort**

SECONDARY OR ACCESSORY FEATURES

- eye blinking,
- inappropriate lip protrusions,
- head jerking,
- thigh slapping,
- foot tapping etc.



Adaptation Effect

- **A decrease in stuttering with repeated utterances of the same material in a relatively constant speaking situation usually measured during successive readings of the same passage**



Consistency Effect

- **The tendency for stuttering to occur on the same words in repeated readings of the same material (or saying the same thing whether reading or not)**

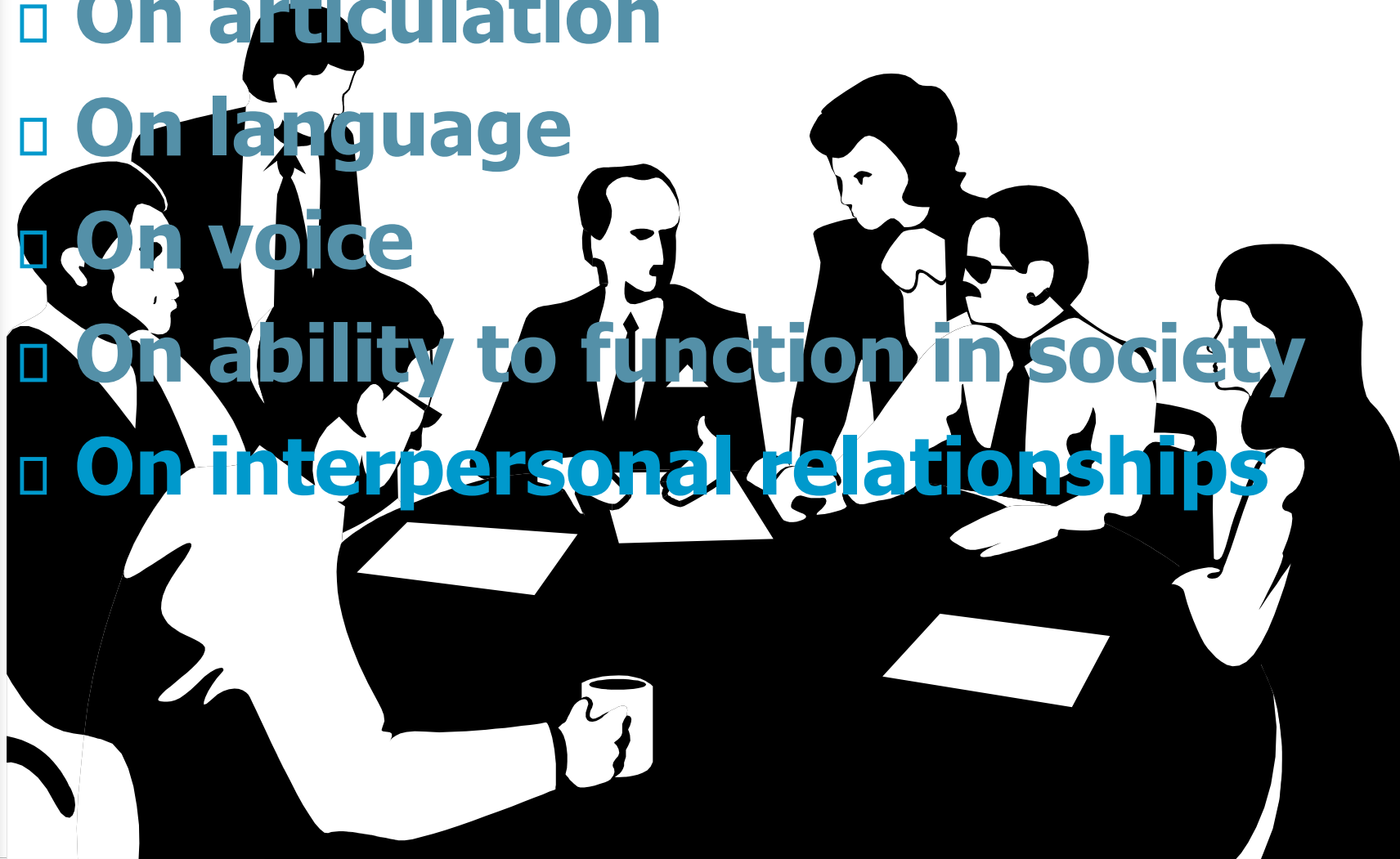


BEGIN LISTENING



Impact

- On articulation
- On language
- On voice
- On ability to function in society
- On interpersonal relationships





Concomitant Problems

Riley

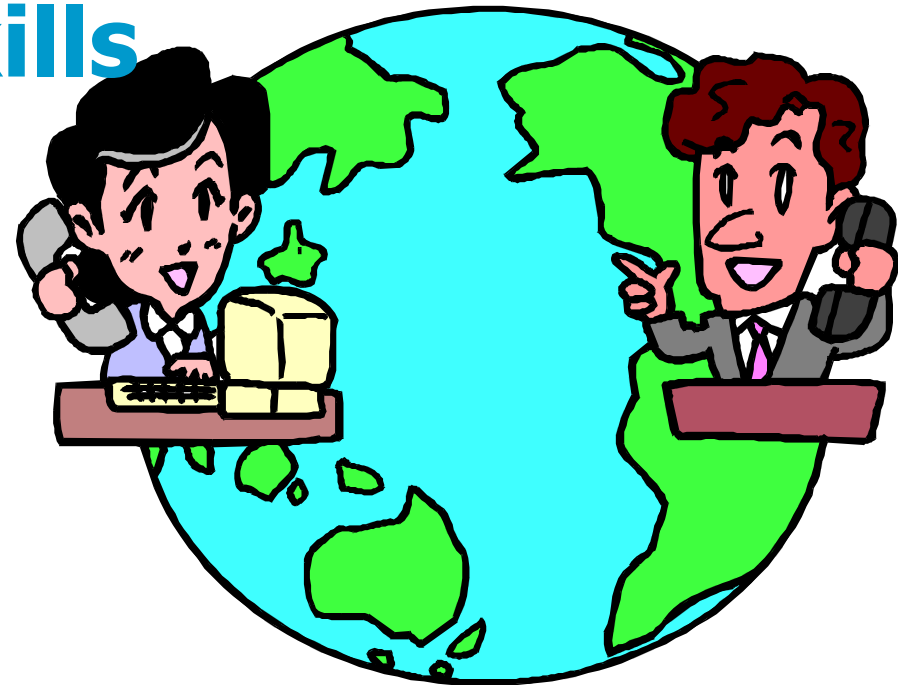
- **Attending disorders** **36%**
- **Sentence formulation** **31%**
- **Articulation disorders** **33%**
- **Oral motor problems** **69%**
- **Perfectionistic attitude** **20%**
- **High parental expectations** **51%**

Capacity & Demands Model

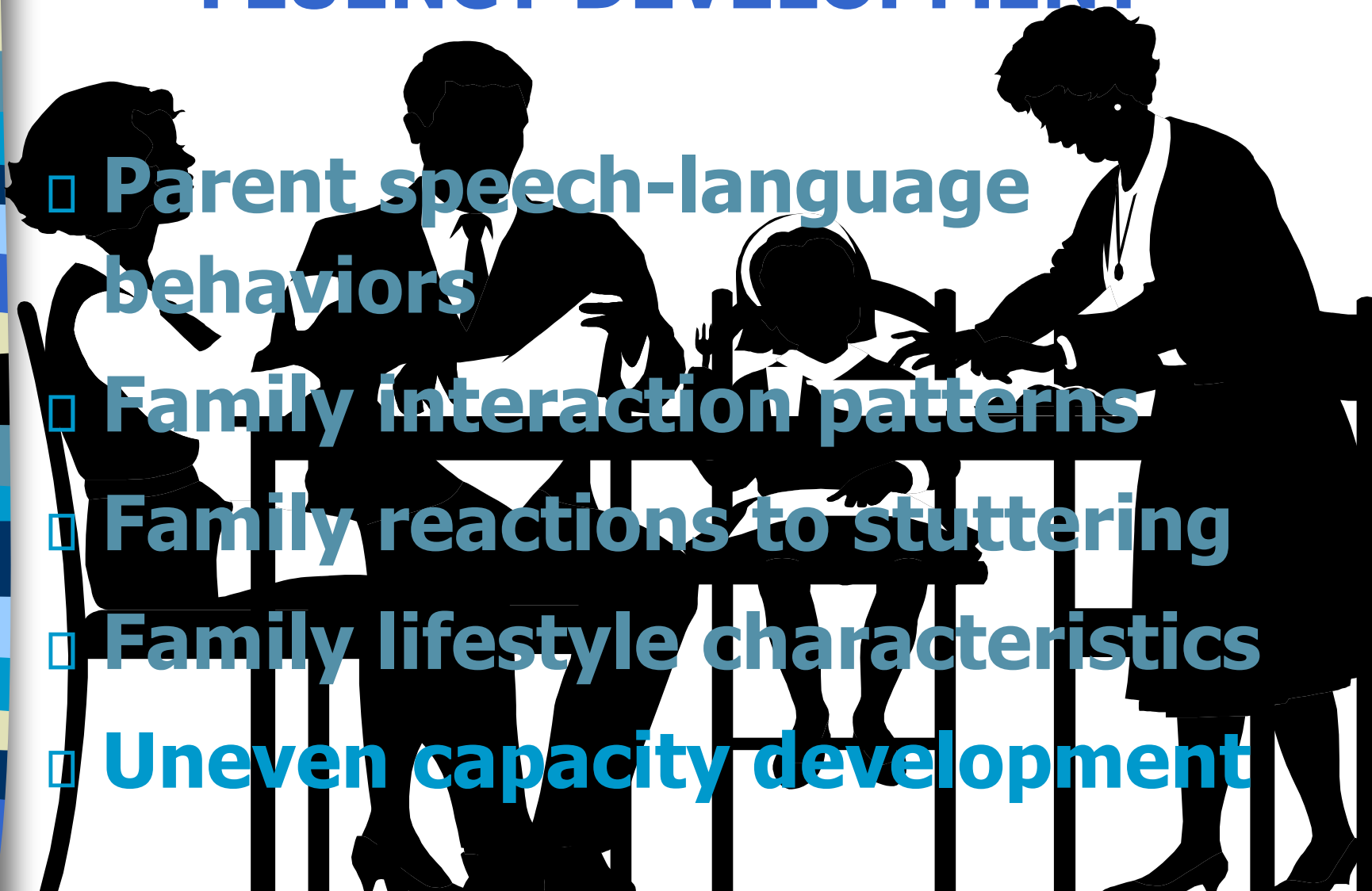
Starkweather, Gottfeld

CAPACITIES WHICH SUPPORT FLUENCY DEVELOPMENT

1. Speech-Motor skills
2. Linguistic skills
3. Affective & Emotional Control
4. Cognitive skills

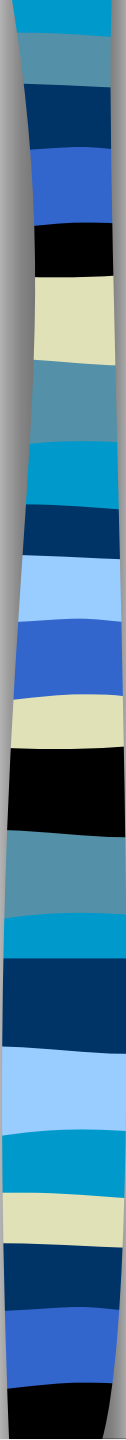


DEMANDS WHICH MAY IMPACT FLUENCY DEVELOPMENT

- 
- A black silhouette illustration of a family and a teacher. A woman is seated on the left, a man in a suit is seated in the center, and a young child is seated on the right. A woman, presumably a teacher, is standing on the far right, leaning over the table. The background features a vertical decorative bar on the left with horizontal stripes in various shades of blue and yellow.
- Parent speech-language behaviors
 - Family interaction patterns
 - Family reactions to stuttering
 - Family lifestyle characteristics
 - Uneven capacity development

The theory in a nutshell....

- **Stuttering occurs when the demands for fluency from the child's social environment exceed the child's cognitive, linguistic, motor or emotional capacities for fluent speech.**



□ **Children who stutter lack adequate capacity for the sensorimotor processing demands of rapid fluent speech**



IF

CAPACITIES

= OR >

DEMANDS

=

FLUENT SPEECH



IF

DEMANDS

>

CAPACITIES

=

EMERGENCE OF STUTTERING

- **C) The development of fluent speech is maximized by supporting capacity development and temporarily decreasing demands**

