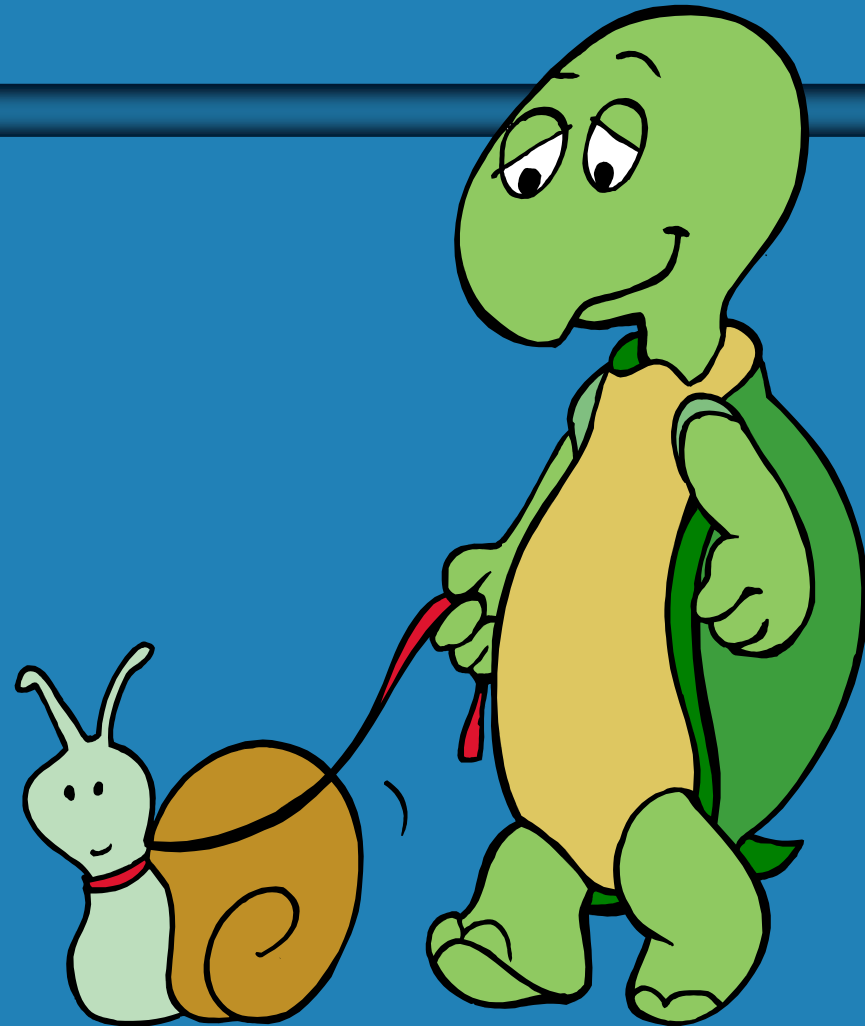


SPA 561. Advanced Fluency Disorders

Spring Semester, 2004

M-W: 11:00 - 12:15

Stephen B. Hood, Ph.D.
University of South
Alabama



Goals for the Semester:

Let's Develop some:

- To better understand the behavioral and emotional components of stuttering in children, teens and adults.
- To better understand the impact that stuttering can have on the person who stutters.
- To better understand clinical techniques for the prevention, early intervention and treatment of stuttering in children, teens and adults.

Class Meetings

- Primarily a mixture of lecture, video tapes.
 - Enhanced by a significant amount of verbal, class participation.
 - Enhanced by purposeful redundancy.
 - Also redundancy with undergraduate courses, but in more depth.
- Additional Opportunities
 - Attend our monthly NSA support group meetings.
 - Internet Resources: to be explained later.

Redundancy Augments Learning

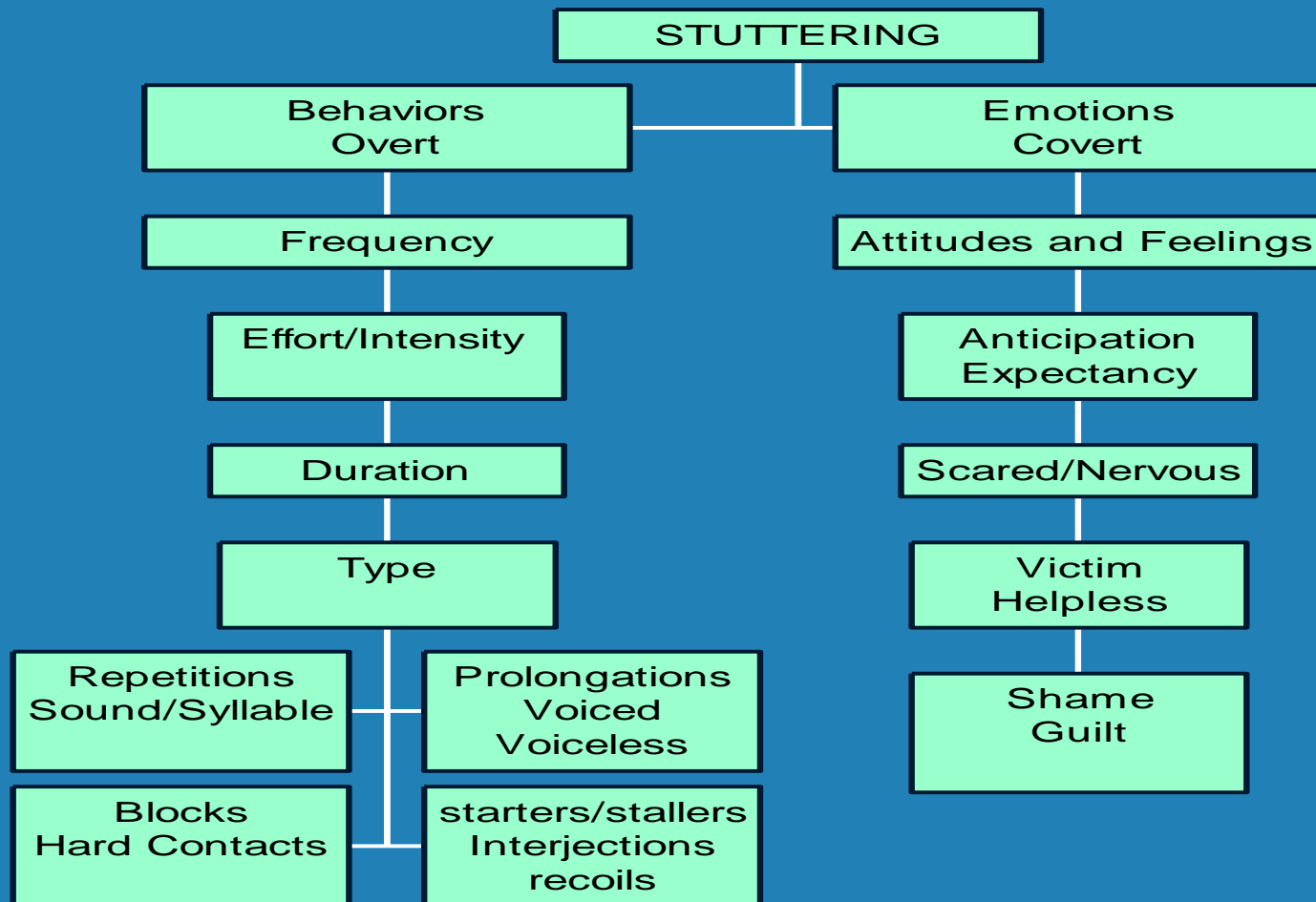
□ For USA undergrads

- Some of this is a materials you had before. Going through a second time aids in leaning.
- Please help the new students

□ For Students who are new to USA

- I am not sure of your undergraduate background. See me for extra help if you needed it.
- Please ask the USA undergrads for help.

Behavioral and Emotional Dimensions



Sheehan's Iceberg of Stuttering

Core Features

Repetitions

Prolongations

Blockages

Secondary Features

Escape

Avoidance

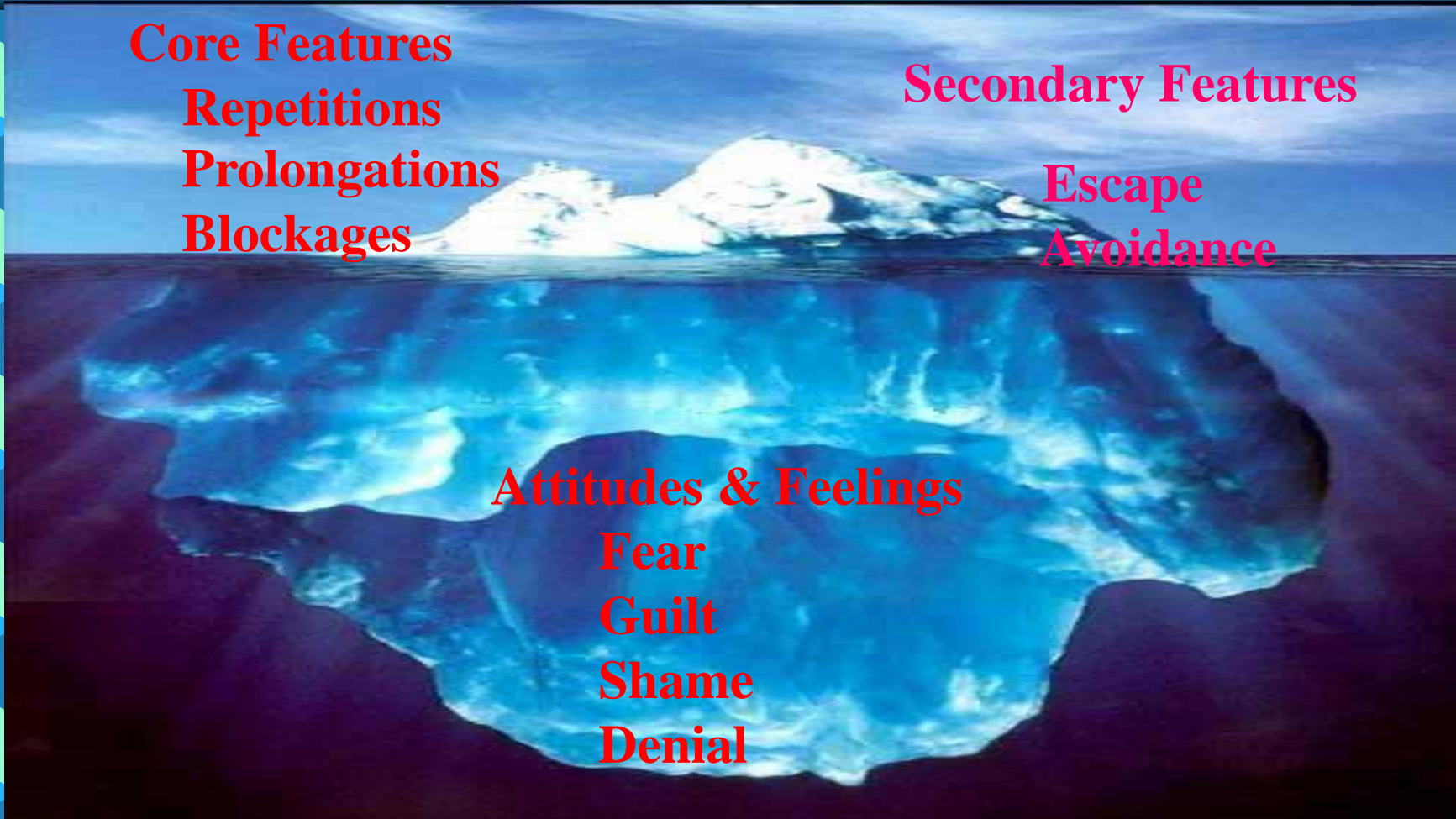
Attitudes & Feelings

Fear

Guilt

Shame

Denial



Time Sequencing of Events

<u>Pre-Disruption</u>		<u>Fluency Disruption</u>	<u>Post Disruption</u>
Emotional	Behavioral	Behavioral	Emotional
Anticipation	Avoidance	Disfluency	Embarrassment
Expectancy	Postponement	Fluency Failure	Humiliation
Fear	Word Substitution	Stuttering	Guilt
Worry	Disguise	Audible-Vocalized	Relief
Apprehension	Antiexpectancy	Part-Word Repetitions	Shame
Anxiety	Timers	Word Repetitions	Withdrawal
Dread	Starters	Phrase Repetitions	Anxiety
Worry	Pauses	Sound Prolongations	Hostility
Negative-	Circumlocutions	Audible-Nonvocalized	Frustration
Emotion	Body Movements	Part-Word Repetitions	Penalty
Abulia	Refusal	Sound Prolongations	Denial
(etc.)	(etc.)	Dysrhythmic Phonations	
		Inaudible-Nonvocalized	
		hard contacts	
		tense pauses	
		silent blocks	
		Struggle-Escape	
		Recoil	
		Interrupters	
		Effort/tremor/struggle	
		(etc.)	

>> ---rate changes----->>

>> -----speeding and tensing----->>

>> -----holding back----->>

(After Hood, 1978. Assessment of Fluency Disorders)
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Key Terms and Concepts

- Episodic (VR- stages I and II)
- Chronic (VR- stages III and IV)
- Intermittent -- always
- “Descriptive Language Framework”
(Dean Williams)
- “Normal Nonfluency” -- “Normal Disfluency”
 - easy, effortless, rhythmic, infrequent
 - multiple word repetitions, multisyllable whole word repetitions, revisions, interjections
 - usually only one, or maybe two, reiterations

Key Terms and Concepts (continued)

- Overt features -- Covert features
- Escape behaviors -- Avoidance behaviors
- Predisposing, Precipitating, Sustaining
- “Stutter-like disfluency” (SLD)
 - More fragmented: sound and syllable repetitions, single-syllable whole word repetitions, sound prolongations and disrhythmic phonations, hard contacts, tense pauses and silent blocks
 - Reiterations of repetitions usually more than two

Key Terms and Concepts (Continued)

- Incidence -vs- Prevalence
- “Stutterer” -vs- “Person Who Stutters”
- Spontaneous Recovery
 - the concept of “cure”
 - “medical models” and “behavioral models”
- Gender Differences
- “Disfluency” -vs- “Dysfluency.”

Factors Related to Fluency: Speech Naturalness

- ✓ Melody/prosody/inflection
- ✓ Pauses
- ✓ Rate: speech rate -vs- articulation rate
- ✓ Amount of information flow
- ✓ Effort: both physical and mental
- ✓ Fluency
 - ✓ Phonologic
 - ✓ Syntactic
 - ✓ Semantic
 - ✓ Pragmatic

Core Features (Guitar)

Refer to Textbook, for developmental stages

- Repetitions (usually develop first)
 - Sounds, syllables, single syllable whole words
 - Audible: Vocalized and Nonvocalized
- Prolongations (often develop second)
 - Audible: Vocalized and Nonvocalized
 - Disrhythmic phonations
- Blocks (Usually develop last)
 - Inaudible -- Nonvocalized
 - Silent fixations of posture
 - Complete stoppage
 - Inaudible and Nonvocalized

Secondary Features

ESCAPE

- ❑ Escape behaviors develop prior to avoidance behaviors. At first, these are probably random, but later serve to release the person from the stuttering moment.
- ❑ Later, become well learned through negative reinforcement.
- ❑ Prominent in Intermediate and Advanced Stages.

AVOIDANCE

- ❑ Learned as response to anticipation of stuttering. May actually be similar to escape behaviors, but now used to avoid prior to stuttering.
- ❑ Become maintained by positive reinforcement.
- ❑ May begin in Intermediate Stage, and highly prevalent in Advanced Stage.



Feelings and Attitudes

- Feelings (Affective)
 - Examples: frustrated, nervous, scared, upset, embarrassed, guilt, shame, denial
- Attitudes (Cognitive)
 - Related more to your beliefs about stuttering and stutters. Refer to text for examples related to developmental state
 - Refer to text for examples, relative to developmental stage
 - e.g., that stuttering is bad, wrong, nasty, etc. That stutterers are stupid, unworthy

Etiological Considerations

- ❑ The factors that “caused” disfluency and stuttering at onset are not the same as the things that cause stuttering to develop, and not the same as the things that “cause” stuttering to persist.
- ❑ Stuttering can be attributed partly, but not fully, to heredity.
- ❑ Although we do not believe that there is a single gene that causes stuttering, there is reason to believe that genetics may provide for susceptibility, and vulnerability
- ❑ Although genetics make people more vulnerable, developmental and environmental factors can serve to exacerbate the problem.



UNIT II: Learning Theory

□ Learning Theory:

- Emotional Learning
- Behavioral Learning

Avoidance

Escape

□ Assessment

- Overt-Behavioral Features
- Covert-Emotional Features



Learning Theory

- Although there may be some debate as to precise etiology (organic-constitutional, psycho-emotional, environmental) there is strong agreement that once stuttering gets started, learning theory plays a major role.
- Learning theory may not explain predisposing factors, but it helps explain precipitating and maintaining factors.

Classical Conditioning

- Synonyms
 - Classical, Pavlovian, Respondent, reflexive
- Contiguous Pairings
 - UCS -----> UCR
 - NS -----> ?
 - NS---UCS -----> UCR
 - CS -----> CR
- Examples
 - Audiology -- Galvanic Skin Responses
 - Students -- # 2 Pencils, and test sheets
 - Stutterers -- The ringing of a telephone

Operant Conditioning

- Synonyms
 - Operant, Skinnerian, Behavioral, Instrumental
- Contingencies
 - Response -> Consequence $R \rightarrow C$
 - $R \rightarrow Rf+$ positive reinforcement
 - $R \rightarrow Rf-$ negative reinforcement
 - $R \rightarrow NR$ no reinforcement
 - $R \rightarrow P$ punishment
- See Guitar Text. Pages 89-100
- See Class Handout Booklet-- Pages 23-27



Brutten and Shoemaker

- ❑ Stuttering is a form of fluency failure which is the consequence of learned, antecedent, negative emotion. Consistent because the emotion is learned.
- ❑ Fluency failures are the involuntary consequence of antecedent negative emotional. Sporadic because they are unlearned.
- ❑ See Diagrams in Class Handout.

Conflict Learning Theory: Sheehan (see class handout)

Sheehan's Double Approach-Avoidance Conflict Theory applies to precipitating and maintaining factors. It is not a theory of etiology.

□ Levels of Conflict

- approach-approach
- avoidance-avoidance
- approach-avoidance
- double approach-avoidance



Sheehan, Continued

□ Conflict Hypothesis

- The stutterer stutters when conflicting approach and avoidance tendencies approach equilibrium

□ Fear Reduction Hypothesis

- The occurrence of stuttering reduces the fear that elicited it, so that during the moment of stuttering there is sufficient reduction in fear-motivated avoidance to resolve the conflict and permit release of the stuttered word.



Sheehan, continued

□ The Fear of Both Speech and Silence

- Speaking holds the promise of communication, but the threat of potential stuttering
- Silence temporarily eliminates the threat of speaking and possibly stuttering, but at the abandonment of communicating.
- Guilt can be attached to both speaking and being silent.

Sheehan, continued

□ Sources of Conflict

- Speech -vs- Silence
- Primary Guilt -vs- Secondary Guilt
- Self as Stutterer -vs- Self as NonStutterer
 - Role Acceptance -vs- Role Denial

□ Levels of Conflict

- Word/Sound - specific sounds and/or words
- Situation - time-pressure telephone, talk in class, to a group
- Emotional Content - strong emotional valence to topic
- Role-Relationship - status-gap, authority figures
- Ego Protective -- when ego being threatened



Unit III: Onset and Development

- Risk Factors
 - family history
 - delayed language and speech development
 - child's temperament: sensitive, easily frustrated, etc
 - communicative and situational stress, etc
- “Normal Disfluencies” and “Stutter-Like Disfluencies”
- F-I-D-T
- Episodic / Cyclical Variation



Developmental and Environmental Influences

Developmental

- Physical
- Cognitive
- Social-Emotional
- Speech & Language

Environmental

- Parents
- Speech & Language Environment
- Life Events



Capacities and Demands: Starkweather

- ❑ The child's capacity for fluency does not equal environmental demands for it.
- ❑ Reduced capacity may be caused by "organic predisposition."
- ❑ It is the ratio of demands to capacities that is important. This becomes a focus of therapy.
- ❑ Components: Motoric, Linguistic, Emotional, Cognitive, Social-Pragmatic.



Communicative Failure and Anticipatory Struggle: Bloodstein

- ❑ Kids with communication difficulties (articulation, language, word-finding) are more at risk for stuttering to develop. When kids have a hard time being understood, especially in a demanding environment, then they are even more vulnerable.
- ❑ Early communicative failures lead to tension and fragmentation
- ❑ Tension and Fragmentation can lead to anticipatory-struggle



E. Charles Healey: CALMS

- C = Cognitive
- A = Affective
- L = Linguistic
- M = Motoric
- S = Social

(Similar to Demands and Capacities)



The Development of Stuttering

- Van Riper's 4-Stage model (Handout)
- Douglass and Quarrington - Exteriorized Interiorized (Handout)
- Guitar (Borderline, Beginning, Intermediate, Advanced (Handout and Text))



Unit IV: Assessment

STUTTERING

Behavior

Frequency

Intensity

Duration

Type

Emotions

Attitudes

Feelings

Selected Assessment Instruments: Adults

- ❑ Stuttering Severity Instrument (SSI). Riley
Frequency, duration and accessory behaviors
- ❑ Modified Erickson Scale of Communication Attitudes
Feelings and attitudes about communication
- ❑ Perceptions of Stuttering Inventory (PSI). Woolf
Expectancy, avoidance, struggle,
- ❑ Cooper Assessment of Stuttering Severity. Cooper
Affective, behavioral cognitive
- ❑ Molecular Analysis of disfluency types. Hood
Frequency, duration, effort, type



Selected Assessment Instruments: Kids

- A-19 Scale for Children Who Stutter. Andrea & Guitar
- Communication Attitude Test. Brutten

Disfluency Analysis

Key Concepts of Importance

- ✓ Obtaining valid samples
 - ✓ rote automatic (count/days/months/poem, nursery rhyme)
 - ✓ picture description
 - ✓ monologue, telling story, relating an event
 - ✓ reading (at age level)
- ✓ Number of meaningful words and syllables spoken
- ✓ Duration of speaking task
- ✓ Molar Frequency Count
- ✓ Molecular assessment of disfluency types.
- ✓ Speech Rate -versus- Articulation Rate
- ✓ See disfluency analysis worksheet -- Class Handout



Prevention and Treatment

Borderline-Mild

- Prevention and early intervention
- Manipulation of talking environment
- Family Involvement

Intermediate-Advanced

- Direct focus on stuttering: fluency shaping and stuttering modification
- Desensitization and coping
- Acceptance
- Attitudes & Feelings

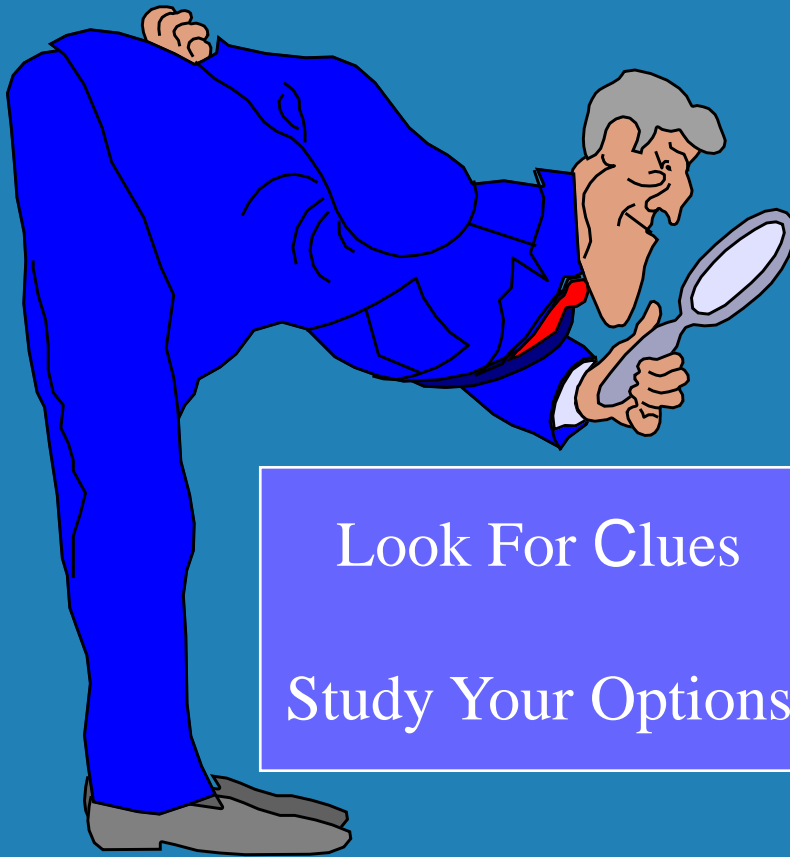


Therapy For the Advanced Stutterer

- Fluency Shaping Approaches
- Stuttering Modification Approaches
- Combined Approaches
- Traditional Scheduling
- Intensive Programs

See Text. Pages 231-233, and 237.

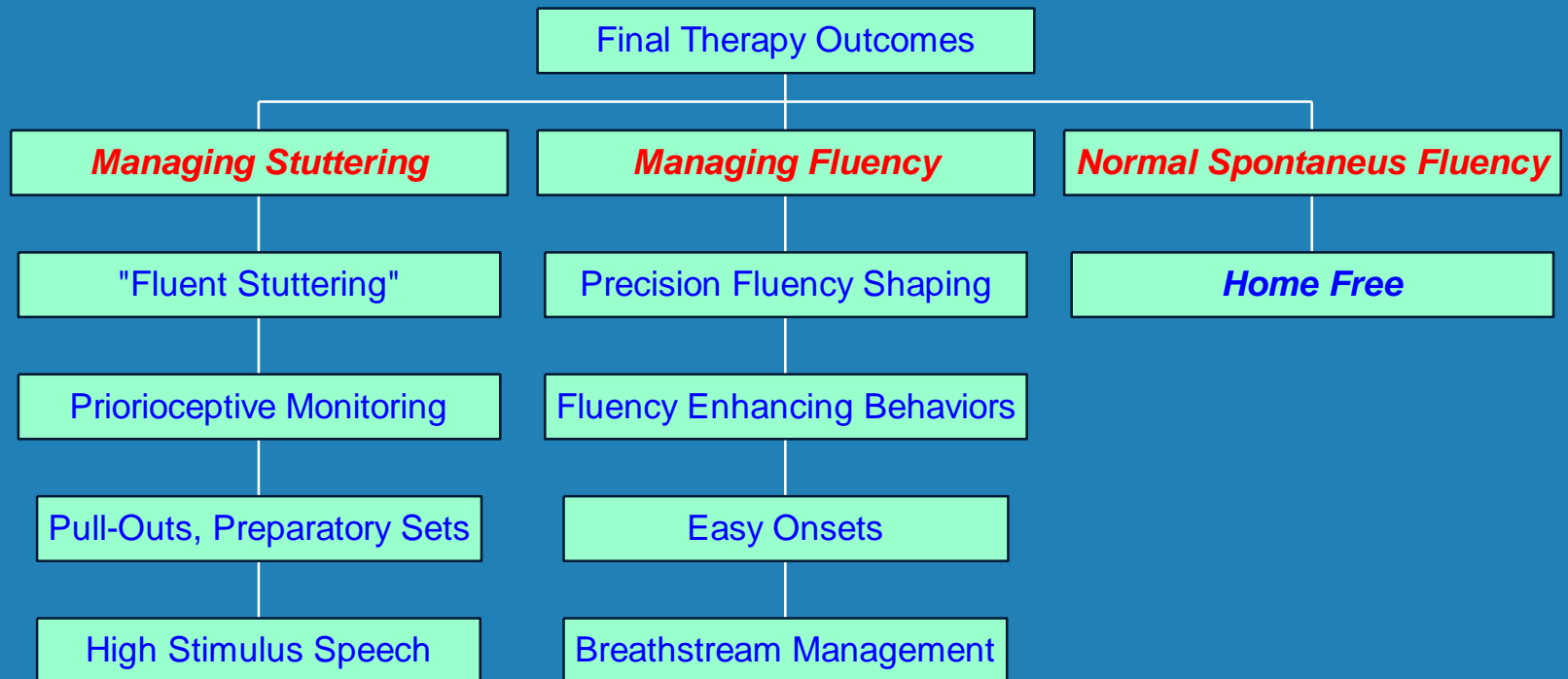
Explore your Options



Look For Clues
Study Your Options

- Components
 - Attitudes
 - Feelings
 - Behaviors
 - Avoidance
 - Stuttering
 - Escape
- Goals/Objectives
 - be fluent
 - fluent stuttering
 - manageable stuttering
- EFFECTIVE COMMUNICATION

Final Outcomes from Therapy: Goals, Options and Choices



Realistic Outcomes:

for adults for whom stuttering has become chronic and severe

- ❑ To be able to talk any time, any place and to any body
- ❑ And to be able to communicate effectively and efficiently
- ❑ And to be able to do so with little more than a normal amount of negative emotion.

Components of Therapy for Advanced (older) stutterers

Behavioral

- ❑ Identification
- ❑ behaviors and emotions
- ❑ Desensitization
- ❑ behaviors and emotional
- ❑ Modification
- ❑ Stabilization

Emotional

- ❑ Being open, honest, accepting
- ❑ Stuttering is really OK. Be able to talk about it.
- ❑ Reduce shame, guilt, denial
- ❑ I don't need to chase the "Fluency God"

Changing Stuttering Behaviors:

See Guitar Text: Pages 240 - 261

(Additional Information in SFA Booklets)

Fluency Shaping


- Slower rate
- Easy Onset
- Soft Contact
- Proprioception

Stuttering Modification

- Voluntary Stuttering
- Cancellation
 - erase and fix
- Pull-Out
 - freeze and release
- Proprioceptive monitoring
- Preparatory Sets


Changing Stuttering Behaviors (continued)

- ❑ Identification and understanding core behaviors, secondary behaviors of escape and avoidance, and attitudes and feelings
- ❑ Discussing stuttering openly
- ❑ Using feared words, and entering feared situations
- ❑ Freezing, holding and gradually releasing
- ❑ Voluntary stuttering (and advertising in other ways)
- ❑ Using FEBS (Fluency Shaping)
- ❑ Stuttering more easily (Stuttering Modification)
 - ❑ Cancellation, Pull-Outs, Preparatory Sets.



Ideas from the Internet Along with other Sources

- ❑ I no longer need to chase the “Fluency God.”
- ❑ I can live without constant fear.
- ❑ I can speak well without scanning ahead for difficult words.
- ❑ I can speak for myself, rather than rely on others.
- ❑ I can explore and follow career opportunities that require talking.
- ❑ I can make decisions in spite of stuttering, not because of it.
- ❑ I am not suffering or handicapped because of my stuttering.
- ❑ I accept myself.
- ❑ I don't feel guilty when I stutter, and I am not ashamed of myself.
for when I do sometimes stutter.
- ❑ I have choices I can make that help me talk easily.
- ❑ I communicate effectively, and feel comfortable doing so.
- ❑ “I'm really an o-k person” -- and I like being me.



Crucial Experiences: (Adapted from Van Riper and Czuchna)

- ▶ Stuttering can be deliberately endured, touched, maintained and studied.
- ▶ Avoidance only increases fear, and must be reduced.
- ▶ Struggled, hurried escapes and recoils from stuttering make it worse than it needs to be.
- ▶ It is possible to build barriers to destructive listener reactions.
- ▶ Society in general rewards the person who obviously confronts and attempts to deal positively and constructively with stuttering.
- ▶ Every effort must be made to build up your ego-strength, self-confidence and self-respect.
- ▶ When the moment of stuttering occurs it can be studied, and its evil effects erased as much as possible.
- ▶ It is personally more rewarding to stutter easily and stutter fluently than to stutter severely, and it is fun to be able to talk anywhere, even though you do stutter.

Ways to Talk Easily -- (Which Implies helpful prerequisite attitudes)

Post-It Notes

AVM	Air-Voice-Movement
KYMR	Keep Your Motor Running
RTSE	Remember to Start Easily
NNTH	No Need to Hurry

Speech Rate -vs- Articulation Rate

“Slow it down -- to speed it up”

“Gearing down and gearing up”

Speeding Tickets (car) -vs- Talking Tickets (mouth)

Dealing With Time Pressure



Ways to Talk Easily -- (which implies helpful prerequisite attitudes)

Self Talk and the Use of Language: action oriented verbs

Dean Williams: The language of self-responsibility

“What Happened” -vs- “What am I doing”

“Having a block” and “Getting Stuck”

“Little men are fighting in my throat”

Nowness

Superstitious Behaviors

Safety Margins

Adjustment to easy talking and fluency. No more secondary gains

Openness: Advertising, Voluntary Stuttering, Pseudo-Stuttering



Hood's Hopefully Helpful Hints

- Although you may not have a choice as to WHETHER you stutter, you have a choice as to how you stutter.
- Attempting to hide, repress, conceal, avoid stuttering makes it worse than it needs to be.
- Stuttering is something you do, not something that happens to you.
- The things that may have originally caused stuttering are not the same as the things that influenced its development -- and are not the same as the things that are now serving to maintain the problem.
- Fluency is more than the absence of stuttering.
- It is important to understand the process of talking.
- The process of desensitization is two fold: both emotional AND behavioral.
- It is better to do more and more things to talk easily, than more and more things to try not to stutter.



Unit VI: Therapy for Intermediate Stuttering-- School Aged Kids

1. Therapy is related to severity of stuttering, and Intermediate stuttering is highly similar to advanced stuttering, although client is probably younger, and has not been stuttering for as long.
2. Therapy involves both fluency shaping and stuttering modification.

Therapy Goals and Behaviors Targeted for Therapy (Intermediate)

- ✓ Fluency enhancing behaviors
 - ✓ slow rate, gentle onset, light contact
- ✓ Stuttering modification
 - ✓ cancellations, pullouts, preparatory sets and proprioceptive monitoring.
- ✓ Desensitization:
 - ✓ to understand,
 - ✓ to accept
 - ✓ to cope


Clinical Procedures (Intermediate)

- ✓ Explore and understand stuttering moments
 - ✓ reduce negative feelings
 - ✓ increase acceptance
 - ✓ reduce/eliminate secondary behaviors of avoidance and escape
 - ✓ use of FEBS and modification techniques
 - ✓ speech helpers, AVM, KYMR, etc.
 - ✓ Monitoring: gearing up and gearing down.



Clinical Procedures (Intermediate)

- ❑ Reducing negative feelings
- ❑ Coping with teasing
- ❑ Desensitization to fluency disrupters
- ❑ Eliminating avoidances
- ❑ Being open and accepting of stuttering
- ❑ Maintaining eye contact
- ❑ Being helpful to parents and teachers



Socially acceptable ways to acknowledge acceptance of stuttering to your listeners (also helpful in handling teasing)

If someone asks you if you have any hobbies and interests, you can answer by saying:

- “One of my hobbies is stuttering. I’ve been practicing, and am getting pretty good at it.”

If someone asks you if you stutter, you can say:

- “Yes, I sometimes stutter. As a matter of fact, I am actually getting to be pretty good at it.

If someone asks you if you have stuttered all your live, answer by saying:

- “Not Yet.”



Socially acceptable ways to acknowledge acceptance of stuttering to your listeners

If someone comments on your stuttering, you might say

- “Sure I stutter. What are you good at?”
- “Sure I stutter. Want me to teach you how to do it?”
- “Stuttering is ok, because what I say is worth repeating.”
- “Stuttering is ok, and I have permission to do it.”

(Now: Try to come up with some of your own)



Therapy for Beginning Stuttering

- Whereas fluency shaping and stuttering modification are quite different in Intermediate and Advanced levels, they is more overlap with beginning stuttering.
- Working to establish easy, ongoing, fluent talking, and then transferring and maintaining it.



Unit VII: Prevention and Early Intervention in PreSchoolers

- Make speech fun
- Make talking environment “fluency-friendly.
- See Hood’s Handout on “suggestions to help children talk fluently” for ideas to use with family.
- Desensitize to fluency disrupters.
- Gradually increase the length and complexity of child’s fluent utterances
- Other procedures are highly individualized, and will be covered more in the videos and handouts.



Therapy for Borderline Stuttering

- ❑ See Hood's Handout on helping children talk easily
- ❑ Work TOWARD easy, fluent talking, rather than away from stuttering.
- ❑ Work with family to create positive talking environment for the child. Family counseling is important.
- ❑ See page 371 and 372. Guitar text.

Historical Definitions of Stuttering

Wendell Johnson

- ❑ Stuttering is an anticipatory, apprehensive, hypertonic, avoidance reaction.
- ❑ Stuttering occurs when speaker expects to stutter, dreads it, becomes tense in anticipation, and tried to avoid it.
- ❑ Diagnosogenic theory: “stuttering begins not in the child’s mouth, but in the listeners ear.”
- ❑ X =speech characteristics, Y= listener reactions, Z = speaker reactions to listener.



Diagnosogenic Theory: Johnson

- ❑ Johnson emphasized the overlap between children beginning to stutter and children who were normally nonfluent.
- ❑ Stuttering results from its (mis-)diagnosis.
- ❑ “Stuttering begins not in the child’s mouth, but the listeners ear.”
- ❑ Johnson was wrong as to etiology, but correct with respect to “critical evaluations”
- ❑ Mary Tudor and the “Monster Study”



Historical Definitions of Stuttering

Charles Van Riper

- “Stuttering occurs when the flow of speech is interrupted abnormally by repetitions or prolongations of a sound, syllable or articulatory posture, or by avoidance and struggle reactions.”
- These produce interruptions and breaks in the rhythmic flow of speech.



Historical Definitions of Stuttering

Oliver Bloodstein

- “Stuttering is an anticipatory-struggle reaction. It represents an exacerbation of the tensions and fragmentations that are common occurrences in the speech of normally developing children.”
- “Stuttering develops readily in circumstances in which speech pressures are unusually heavy, the child’s vulnerability to them is unusually high, or communicative difficulties are unusually frequent, severe or chronic.”