

# Relaxation & Imagery

Dr. John Lubker

Associate Dean of Students, Graduate School

University of Notre Dame

# Workshop Outline

Intensity – over-activation and under-activation

Regulating Intensity, optimal

Imagery

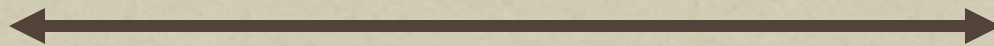
Relaxation

# Intensity

- A blend of physiological and psychological activation of an individual
- Physiological, behavioral, cognitive & emotional
- Varies on a continuum from deep sleep to intense activation



Low  
(coma)



High  
(frenzy)



# Let's take a moment to understand the experience of intensity...

Over-activation:

- Signs?
  - Body, mind, behavior
- Contributions?

# Signs of Over-Activation

- **Body**
  - Muscle tightness
  - Sweating
  - Pounding heart
  - Butterflies in stomach
  - Hyperactivity
  - Dilated pupils
- **Mind**
  - Anxiety
  - Frustration
  - Negative self-talk
  - Diverted attention
  - Focus on wrong things
- **Behavior**
  - Pacing
  - Agitation
  - Increase in superstitious  $B_x$

# Anxiety

- A negative emotional state characterized by nervousness, worry, & apprehension
  - Associated with activation or arousal of the body
    - State and trait anxiety
- Most likely to occur when someone perceives (cognitive appraisal) an inability to deal with the demands of the situation with dire consequences
- Two types...

*Cognitive*: worries, negative thoughts

*Somatic*: perceived physiological arousal



# Contributions to Over-Activation

Five areas of cognitive appraisal

1. The **demands** of the situation
2. The individual's **resources** for effectively managing the demands
3. The **consequences** of the situation
4. The **meaning** that is placed on the consequences
5. **Recognition** of bodily reaction

# Contributions to Over-Activation

- Lack of confidence
- Irrational thinking
- Outcome focus
- Expectations from important others
- Unfamiliarity with the situation, unexpected events, focus on uncontrollables



# Signs of Under-Activation

- Body
  - Heavy muscles
  - Slow reactions
  - Low heart rate
  - Low energy
- Mind
  - Bored
  - Inattentive
  - Lethargic
  - Not “up”
  - Over-confident
- Behavior
  - Decrease pace
  - “let down” body language
  - Reduction in performance relevant behavior
  - Oversensitivity to external distractions

# Contributions to Under-Activation

- Overconfidence
- Lack of interest or motivation
- Absence of fun or enthusiasm
- Lack desire to perform
- Perceive ability exceeds demands (boredom)
- Unimportant task
- Fatigue
- Sleeping difficulties
- Competitive stress
- Nutritional deficiencies
- Lack of emphasis by boss

# Why Regulate Intensity?

“It’s not a case of getting rid of the butterflies, it’s a question of getting them to fly in formation.”

(Jack Donahue)

# Keys to Intensity Regulation

Know optimal level of intensity for the task

Monitor current state to see if it deviates from optimal

- Know your typical pattern of under or over activation
- Increase self-awareness

Learn techniques to regulate activation level

Often good to integrate physical and cognitive techniques

- E.g., decreasing self-doubt and worry lowers anxiety

Determining your optimal  
intensity or energy profile

# How to Determine Optimal Intensity

Consider how task and person factors interact

Compare intensity demands of task to typical performance intensity state

- E.g., low trait anxious student with laid back response to performance stress may need psych-up skills if task demands high activation

Look for consistent performance shift between different types of tasks

- If yes, need better relaxation or energizing skills

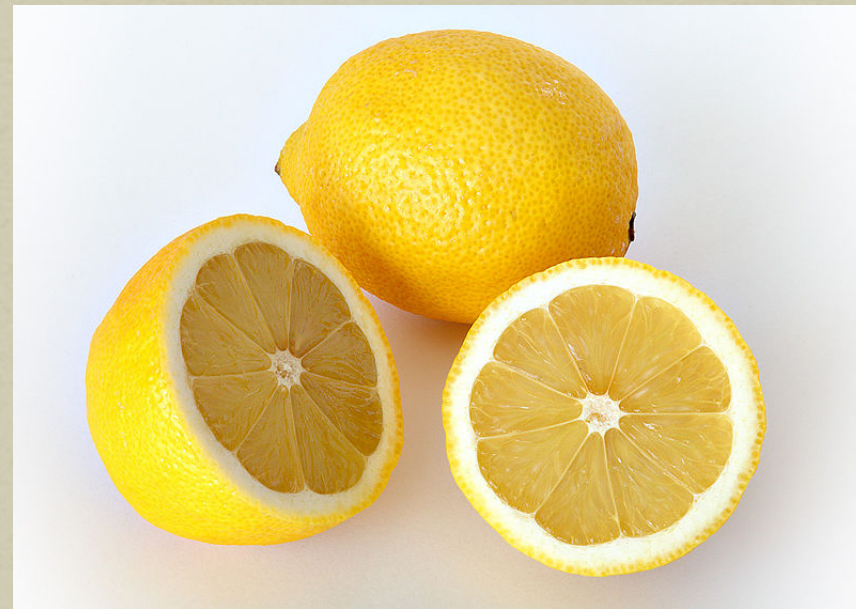
Identify intensity level during best performances

- e.g., imagery of past peak performance

Questions?

# Imagery- a powerful tool

- Involves creating or recreating an experience in your mind
- Creating and recreating moods & emotions
- Polysensory (use all relevant senses)
  - Auditory (sound)
  - Olfactory (smell)
  - Tactile (touch)
  - Gustatory (taste)
  - Kinesthetic (feel)





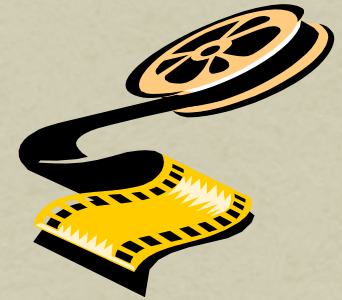
# Grocery Store



# Keys to Effective Imagery

## VIVIDNESS

*Create the image as close to the actual experience as possible*



## CONTROLLABILITY

*Learning to manipulate your images so they do what you want them to do*

## KEY

*You can only improve your quality of vividness and controllability with PRACTICE*

# Uses for Imagery

- Sharpen focus
- Build confidence
- Practice/Rehearsal
- Control emotional & physiological responses
  - HR, BP, skin temp
- Energy Management
- Stress Management

# Imagery as a Coping Skill

When a student sees an email from her advisor in her inbox, she would say to herself, “Oh no, here it comes” and tenseness would overcome her entire body. She decided to employ mental imagery to practice using the email notification as a signal to relax. She imagined herself seeing the notification and saying “Relax” at which point she would relax her shoulders and think “You’re prepared – Just let it happen.” This process helped her alleviate the problem in the real situation and freed her to successfully engage with her advisor.

# More Practical Suggestions

- Do imagery of your goals for daily tasks
- When relearning a technique or undoing an old one, build time for imagery wherein you can see and feel yourself using the new technique
- Reduce sloppiness and bad habits by visualizing correct technique
- Visualize upcoming deadlines, tasks, situations (“coping imagery”)

# Strategies to Enhance Imagery

## Practice: Sensory Imagery

### ▶ See Colors

- Tomato
- Orange

### ▶ Auditory (sound)

- Beat of rain against window
- TV on in the background
- Applause from crowd
- Sound of train whistle

### ▶ Olfactory (smell)

- Roses
- Fresh paint
- Newly mown grass
- Leather
- Coffee

### • Tactile (touch)

- Wool
- Clasp of someone's hand
- Soft, comfortable bed
- Sandpaper

### • Gustatory (taste)

- Salt
- Chocolate
- Coffee
- Fruit
- Lemon

### • Kinesthetic (feel)

- Running upstairs
- Lifting heavy weight
- Tie shoe
- Nodding your head
- Rising up from sitting in chair
- Driving with the window down

# Strategies to Enhance Imagery Practice

- Assessing Imagery Skill Level (imp. first step)
- Start with simple & familiar images or skills
  - Gradually increase the complexity of the skill
- Quality over quantity (10–15 min)

# Strategies to Enhance Imagery Practice

- Integrate equipment
- Combine imagery with real movement
- Practice in many places and positions
- Make images as realistic in timing as physical performance (real time)



# Strategies to Enhance Imagery Practice

- Use technology to enhance imagery
  - audio tapes, video highlight tapes
- Emphasize creating vivid images of actual mental, physiological, and behavioral responses
- Image performance and outcome
- Keep a written log of imagery experience

# Imagery Training Sequence

- ▶ Stationary Inanimate Object
  - Soda Can
- ▶ Moving Inanimate Object
  - A spinning soda can
- ▶ Stationary Animate Object
  - Yourself sitting on your bed
- ▶ Moving Animate Object
  - Walking from your room to the kitchen



You should demonstrate clarity and vividness at each step before moving on

**Questions?**

# Combining Imagery and Relaxation

- Two skills that when combined can have a powerful effect on stress

# Two Categories of Relaxation Techniques

- **Muscle-to-mind**
  - Breathing exercise
  - Progressive muscle relaxation (PMR)
  - Massage
- **Mind-to-muscle**
  - Meditation
  - Visualization

# Muscle to Mind

- Pre-requisites when learning
  - Comfortable position
  - Quiet environment
  - Warm environment
- Once trained, should be able to relax in any environment under any condition

# Breathing

- What happens to breathing when upright or in high-stress situation?
- Diaphragmatic Breathing: Simple, yet very effective
  - One of easiest physiological systems to control

# Breathing Exercises

- Complete breath
  - Filling the lungs up from the bottom
    - Lungs divided into 3 levels or parts:
      - fill lower to upper
    - Exhale by pulling the abdomen in and lowering the shoulders and chest to empty the lungs
  - Let go of all the muscular action at the end of the exhalation so the abdomen and chest are completely relaxed



# Breathing Exercises

- Sighing with exhalation
- Rhythmic breathing
- 1:2 ratio (inhale/exhale)
- 5-to-1 count
  - “I am more relaxed than \_\_\_\_\_”

# Progressive Muscle Relaxation (PMR)

- Jacobson (1930): an anxious mind cannot exist within a relaxed body
- Consists of a series of exercises that involve contracting a specific muscle group, holding the contraction 5-7 seconds, then relaxing 25-30 seconds
- Progresses from one muscle group to another
- Contraction phase: awareness and sensitivity to what tension feels like
- The letting go (relaxation phase): awareness of what absence of tension feels like and can be induced voluntarily by passively releasing the tension (contraction) in a muscle
- PR helps individuals become aware of where they hold tension in body

<b>Muscle Group</b>	<b>How to Tighten</b>
1. Hands and forearms	Make fist, bend hand back at wrist
2. Upper-arms	Push elbow toward ground/back of chair
3. Shoulders	Pull shoulders toward ears
4. Neck	Pull chin down towards chest
5. Face	Wrinkle forehead, squint eyes and wrinkle nose, pucker lips
6. Back	Arch back, pull in stomach
7. Buttocks	Tighten muscles in buttocks
8. Thighs	Straighten legs
9. Calves	Raise toes towards calves
10. Feet	Curl-up toes

# Mind-to-Muscle Relaxation Techniques

- Focus is on nerve control, or the stimulation from the brain to the muscles
  - Meditation
  - Visualization

# Meditation - Process

Helps achieve a state of deep relaxation by calming and controlling the mind

- Sit in comfortable position
- Deeply relax all muscles
  - head to feet / feet to head
- Breathe through nose
- As breath out say “calm”
- Repeat
- easily and naturally



# Relaxation Visualization

- Image being in a place conducive to relaxation
  - “Lying on a beach feeling the warm sun and sand on your body while listening to the breaking waves and sea gulls and smelling the salt air”
  - A beautiful mountain scene by a gentle, gurgling stream

Use whatever image provides a sense of relaxation and calm (no movement)



# Other Tips...

- Cognitive Reappraisal (reframe)
- Self-talk - make more rational
- Familiarization with environment
- Anticipating unexpected events
- Focusing on controllable events
- Smiling

# Final Thoughts





## The Graduate School Game Plan – Dr. John Lubker

### Breathing Exercises

#### Sighing

- Inhale slowly
- Hold breath for 10 seconds
- Exhale through mouth with a slight sigh as you let go of tension in rib cage, chest and shoulders
- Emphasize the relaxation response that starts with the exhalation and becomes calmest at its end
- Emphasize that athletes feel the stillness at the moment directly after fully exhaling and sigh (if can feel this quietness, learning how to relax)
- Practice again but without holding breath (as exhale fully and completely should feel the tension leaving body)

#### Rhythmic Breathing

- Inhale to a count of 4
- Hold for a count of 4
- Exhale to a count of 4
- Can alter the rhythm of breathing by changing the count

#### 1:2 ratio

- First have take deep, full, complete breath then...
- Inhale to 4-count, exhale to 8-count
- Emphasis is on long and total exhalation (if run out of breath on 8 count, suggest taking deeper breath and exhale more slowly)
- When ready, can change the ratio to 5:10 or 6:12 for deepened relaxation
- Very powerful relaxer if done properly.

#### 5-to-1 count

- Mentally count and visualize the number 5 as you take a deep, full, slow breath
- Exhale completely -- being completely still after it
- Mentally count and visualize the number 4 on the next inhalation.
- As you exhale, say "I am more relaxed now than I was at number 5."
- Repeat for 3, 2, 1, etc.
- Complete exercise takes 1-2minutes. Use before or during practices and competition, depending on how much time is available

# The Graduate School Game Plan

## Other Relaxation Tips

### Cognitive Reappraisal

- Overintensity often caused by negative, inaccurate, or extreme cog. Appraisals of situation.
- Controlling overintensity at it's source (altering the appraisal)
- Five areas of appraisal (demands, resources, consequences, meaning, recognition of bodily reactions)
- Perceptions of others expectations

### Self Talk

- Cognitive restructuring to more rational self talk

### Familiarization

- Environment

### Anticipating Unexpected Events

- Identifying what can go wrong and propose solutions
- Ex. Arrive late at competition – plan (have shortened precompetitive routine)

### Controllables

- We worry about things we have little control over
- Have them identify the controllable vs. uncontrollable factors

### Smiling

- We are conditioned to associate smiling with happiness and feeling good
- Smiling changes blood flow through the brain and causes release of neurochemicals that have a relaxing effect
- Difficult to think and feel in a way that is contrary to what body is doing