

Intervention and Support: Individuals with Self-Regulatory (Executive Function) Impairment

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For Elaboration

Articles and chapters:

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TO DO

- 1. Concept of EF/SR**
- 2. Relation to meta-cognition, self-determination, learned helplessness/optimism**
- 3. Development of EF/SR**
- 4. EF/SR impairment**
- 5. [Assessment]**
- 6. Facilitation via everyday routines of interaction**
- 7. Educational and Communication Interventions/Strategy intervention**

Impaired Self-Regulation

- Illustrations

ILLUSTRATIONS

- Adam
- Janet
- Ben
- Janet

EXECUTIVE FUNCTIONS/ SELF-REGULATION

- **Self-determination**
- **Self-control**
- **Self-management**
- **Self-direction**
- **Maturation**

EXECUTIVE FUNCTIONS

- “... those mental capacities necessary for formulating goals, planning how to achieve them, and carrying out the plans effectively” (Lezak, 1982)**
- “...ability to maintain an appropriate problem-solving set for attainment of a future goal.” (Welsh & Pennington, 1988)**

EXECUTIVE FUNCTIONS

“... the executive functions serve as an integrated directive system exerting regulatory control over the basic domain-specific neuropsychological functions (e.g., language, visuospatial functions, memory, emotional experience, motor skills) in the service of reaching an intended goal.”

Gioia & Isquith, 2003

Self-Regulation

“Using thought to guide behavior” (L. Berk)

“Self-regulation refers to the many processes by which the human psyche exercises control over its functions, states, and inner processes.”

Vohs, K.D., & Baumeister, R.F. (2004). Understanding self-regulation: An introduction. In R.F. Baumeister & K.D. Vohs (Eds.), Handbook of self-regulation: Research, theory and applications (pp. 1-9). New York: Guilford Press.

EF/SR

Organizing and controlling action, thought, and emotion in a way that is (1) not determined by immediate environmental events, (2) not determined by immediate impulse or states of the body, (3) not determined by the control of others, (4) directed toward personal goals, (5) while taking into account environmental factors such as the goals and intentions of others

- **Conscious/effortful OR automatic/habitual**

EF/SR

- **“COLD”**: Self-regulation of covert cognitive and linguistic processes
 - Associated with dorsolateral prefrontal cortex
 - E.g., working memory tasks
- **“HOT”**: Self-regulation of emotions and observable social behavior
 - Associated with orbital and ventromedial prefrontal cortex
 - E.g., delayed gratification tasks; “gambling” tasks
- **Interact in the real world – despite neuroanatomic and neuropsychological separability**

EF/SR: UNORGANIZED LIST

- **Setting and managing goals**
- **Planning**
- **Organizing**
- **Initiating**
- **Inhibiting**
- **Self-monitoring**
- **Strategic thinking**
- **Problem solving**
- **Working memory**
- **Flexible shifting**
- **Deliberately controlling any cognitive**
- **Delaying gratification**
- **Social perception**
- **Controlling emotions**
- **Learning from consequences**
- **Organized sense of self**

EF/SR SYMPTOMS

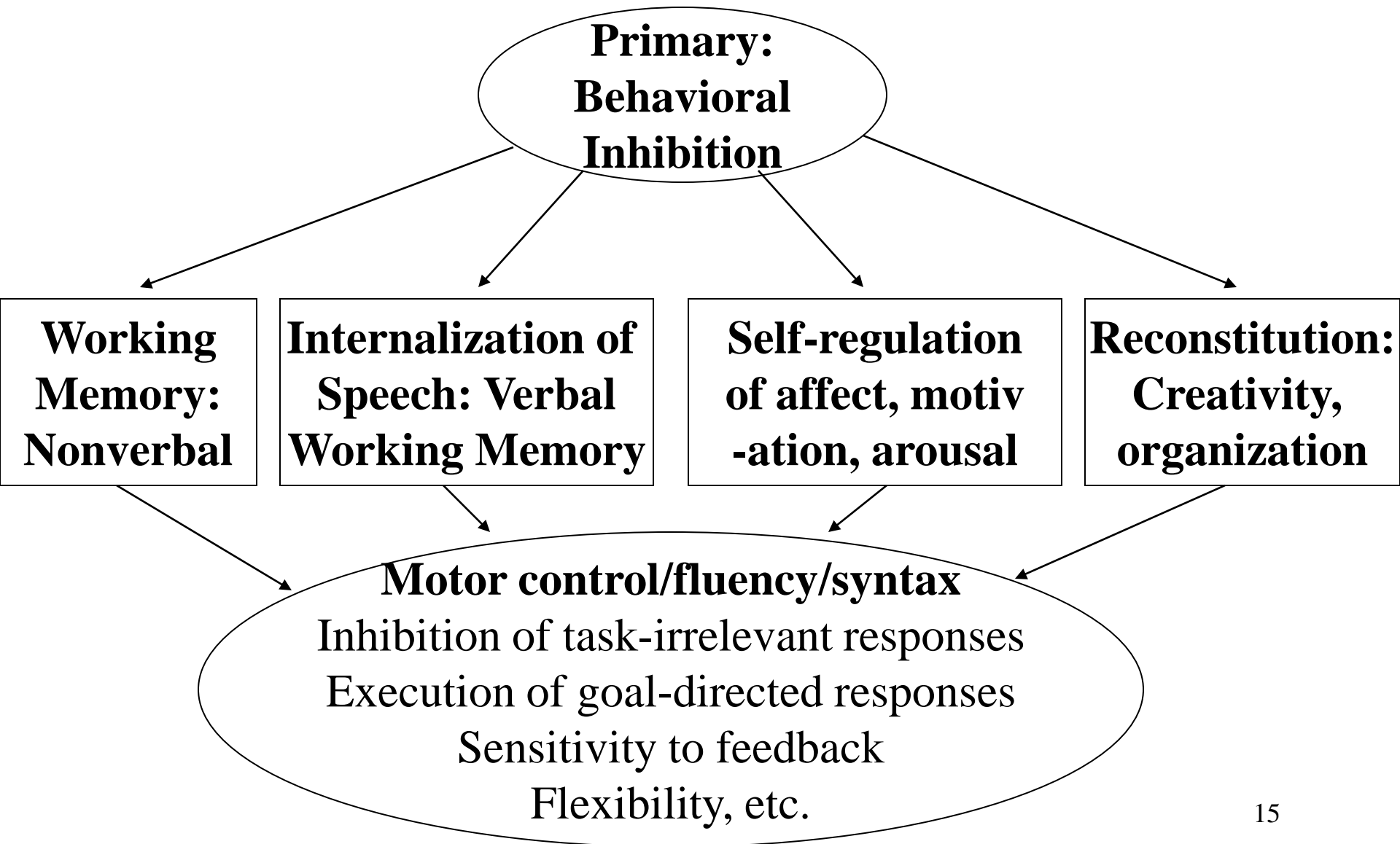
- **impulsiveness**
- **poor social judgment**
- **social disinhibition**
- **egocentrism**
- **difficulty interpreting the behavior of others**
- **perseveration**
- **poorly regulated attention**
- **disorganization (in thinking, talking, and acting)**
- **weak goal formulation**
- **ineffective planning**
- **decreased flexibility/ shifting**
- **slowed processing**
- **diminished divergent thinking**
- **concrete thinking**
- **immature problem solving**
- **weak self-monitoring**
- **inefficient responses to feedback/ consequences**
- **reduced initiation**
- **dulled emotional responses**

EF: FACTOR ANALYSES

- **Several attempts have been made to organize lists of EF symptoms using factor analytic procedures.**
 - **The variety of lists recommends caution in interpretation!!**
- **From an intervention perspective, these results are not especially useful – for both technical and clinical reasons.**
 - **Neuropsychological separability does not necessarily recommend intervention separability**
- **Factor analyses are vulnerable to the limitations of the tests administered**

EF/SR: Theory Construction

R. Barkley



EF/SR: FUNCTIONAL DEFINITION

Based on analysis of strategic action

- **Self-awareness of strengths and limitations (what's hard to do; what's easy to do)**
- **Goal setting**
- **Planning/organizing**
- **Initiating**
- **Inhibiting**
- **Self-monitoring and evaluating**
- **Strategic thinking and acting**
- **Flexible shifting, adjusting, benefiting from feedback**

OTHER ASPECTS OF EF/SR

- **Transfer from learning context to application context**
- **Think abstractly and flexibly**
- ?? **Assume a non-egocentric perspective (“theory of mind”)**

EF/SR: UNITARY OR SEPARABLE COMPONENTS?

- **Separable components: must be separated for neuropsychological and clinical investigations**
- **Should be seen as integrated for purposes of functional intervention (versus fragmented, discrete-trial “training” of components)**
- **Compare: language**

SR/EF: DOMAIN SPECIFIC?? CONTEXT AND CONTENT?

Does effective SR/EF performance in one domain or setting predict equal performance in others?

- No: Everyday example: Effective goal setting, planning, initiating, inhibiting, self-monitoring, strategic behavior in football does not predict equally successful SR/EF in academic domains**

SR/EF: DOMAIN SPECIFIC?? CONTEXT AND CONTENT?

Does effective SR/EF performance in one domain or setting predict equal performance in others?

- **No: Research: Pediatric studies: vary context – different results**

EF/SR

- **Routine, habitual, easy**

Versus

- **Non-routine, novel, hard, effortful**
 - **Strategic thinking demands**
 - **Working memory demands**
 - **Inhibition of pre-potent response demands**
 - **Maintenance of goal-directed behavior**
- **HOWEVER: Aspects of executive functioning can (and should) become routine/automatic**

EF/SR AND COGNITION: DELIBERATELY CONTROLLED

- **Attention**
- **Memory and learning**
- **Organization (including discourse)**
- **Reading and writing**

EF/SR AND LANGUAGE: DELIBERATELY CONTROLLED:

- **Effortful word retrieval**
- **Discourse (organized language), including reading comprehension and organized writing**
- **Social perception and interaction (including pragmatics and “theory of mind”)**
- **Flexibility in shifting social registers**
- **Flexibility in multiple interpretation tasks**
- **Efficient language learning (effortful encoding and retrieval)**
- **Indirect language**
- **Abstract language**

EF/SR:

Illustrations

PRESCHOOL

- **Fall off balance beam, try it sideways, succeed**
- **One cookie now or two later?? Two later**
- **Lose toys, get in habit of putting them in cubby**
- **Request help when tasks are difficult**

HIGH SCHOOL

- **Fail exam, study harder, succeed**
- **Distracted by video games, go to another room to study**
- **Use multiple social registers as appropriate**
- **Suppress impulses in the service of long-term academic, social and vocational goals**

METACOGNITION

- **STATIC:** Knowledge/awareness of one's cognitive and academic processes and skills, and of procedures (“strategies”) that enhance performance
- **DYNAMIC:** Executive control over cognitive and academic processes in everyday learning and problem solving: *Doing something special* to overcome obstacles and succeed with difficult tasks

SELF-DETERMINATION

- **AUTONOMY:** Act independently, free from undue external influence
- **SELF-REGULATION:** Formulate, enact, and evaluate plans of action, with revisions as necessary
- **PSYCHOLOGICAL EMPOWERMENT:** Act on the belief that one can influence important outcomes
- **SELF-REALIZATION:** Capitalize in a beneficial way on a reasonably accurate knowledge of self

Michael Wehmeyer and colleagues

Sense of Self



EF/SR



Basic Developmental Acquisitions:
Physical, Linguistic, Academic, Social, Etc.

IMPORTANCE OF EF/SR

CRITICAL FACTOR IN:

- **Social success**
- **Academic success**
- **Vocational success**
- **Independent living**

Importance of Self-Regulation/ EF Development

- **Measures of delayed gratification (i.e., “hot” aspects of EF/self-regulation) at age 4 predict adolescent SAT scores and ratings of social-emotional and cognitive competence (Mischel and Ayduk, 2004)**
- **And predicted educational level and use of crack cocaine at age 27 (Ayduk et al., 2000)**

SELF-DETERMINATION AND ADULT OUTCOME

- **Wehmeyer et al. study**
- **LD and EMR**
- **Rank on self-determination scale**
- **IQ not a predictor of self-determination**
- **Follow one year after ending school career**
- **High self-determination: dramatic superiority in having a job, checking account, etc.**

EF/SR IMPAIRMENT: INTERFERES WITH EDUCATIONAL INTERVENTION

- **Unaware -- unengaged**
- **Reduced inhibition – impulsive cognitive and academic behavior**
- **Reduced initiation – failure to use available skills**
- **Reduced monitoring – failure to appreciate value of strategic behavior**
- **Inefficient response to consequences – remain stuck**

EF/SR and Learned Helplessness

Learned Helplessness: Core concept = “I have no control over events in my life, particularly negative events”

May result in:

- **Depression**
- **Passivity/apathy**
- **Anger, hostility, and acting out**
- **Combination**

Learned Helplessness and Attribution

Negative Attribution

- **Stable attribution: things will never change**
- **Global attribution: everything happens like this in my life**
- **Internal helplessness: I can't do anything right**

Learned Helplessness and TBI

- Individuals who experience a world in which most events are out of their control show increased negative affect, slower problem solving, failure to master tasks, and persistent use of unhelpful strategies.**
- After TBI, there is a natural tendency to remove opportunities for control from the person, risking learned helplessness (manifested as apathy, depression, or anger)**

Learned Optimism

Optimism is associated with:

- **Effective self-regulation of behavior and cognition**
- **Initiation and maintenance of goal-directed behavior**
- **A disposition to obtain relevant information in order to make effective decisions and plans**
- **A tendency to attend to risks as problems to be solved rather than barriers to success**
- **Positive attribution: My strategic effort affects the outcomes of my actions**

Teaching Optimism

Pennsylvania Optimism Program: School-Based (Context-Sensitive) Intervention

- 1. Teach a flexible/realistic attributional style**
- 2. Encourage: describe ones behavior first, then identify related factors**
- 3. Teach problem-solving skills in the context of the academic and social “curriculum”**
- 4. Correct errors in social perception/cognition**
- 5. Facilitate assertiveness and negotiation**
- 6. Address cognition, emotion, and behavior as necessarily interdependent**

EF/SR DEVELOPMENT

Themes

- **Start early**
- **Develop slowly**
- **Continue into adulthood**
- **Influenced by biologic and environmental factors**
- **Variability: Context (person, setting and task), motivation, culture**

THEORIES OF EF/SR DEVELOPMENT

All theories of human development account in some way for development of self-regulation. And all theories posit some sort of basic drive toward mastery and control over events on one's life.

THEORIES OF EF/SR DEVELOPMENT

- **Operant behavioral**
- **Social learning**
- **Psychoanalytic**
- **Piagetian**
- **Vygotskyan**
- **Information processing**

EF/SR DEVELOPMENT: The Role of Experience

Children are more likely to develop effective self-regulation if they:

- Experience adequate social attachment**
- Experience an organized and predictable world**
- Receive “authoritative/apprenticeship” parenting, including effective modeling and verbal mediation**
- Are rewarded for appropriate self-regulation and control by adults who value self-regulation and autonomy**

Parental Impact on Development of Self-Regulation

- Associated with effective self-regulation in the child: A parental style that is responsive, supportive, sensitive, stimulating, guiding, non-punitive, with positive expression of emotion (“authoritative” parenting)**
- Associated with ineffective self-regulation in the child: A parental style that is unresponsive/intrusive, unsupportive, insensitive, directive, punitive, with negative expression of emotion**

EF/SR IMPAIRMENT

Vulnerable Populations

- **TBI/Frontal Lobe Injury**
- **ADHD**
- **Autism (ASD)**
- **???Tourette's Syndrome**
- **Fetal Alcohol Syndrome**
- **Heavy cocaine exposure**
- **Epilepsy**
- **Meningitis**
- **Early Treated Phenylketonuria (disrupts dopamine production)**
- **Heavy Lead Burden**
- **Very Low Birth Weight (in some cases)**
- **Hydrocephalus/Spina Bifida**
- **Certain Malignancies**
- **OCD**
- **???Conduct Disorder**
- **Chaotic Environments (e.g., multiple foster placements)**
- **Children with learned helplessness**

NEUROPATHOLOGY OF EF/SR DISORDERS

- **Congenital or acquired**
- **Structural or metabolic**
- **Focal or diffuse**
- **Focal:**
 - **Prefrontal structures**
 - **Prefrontal-striatal-cerebellar systems**
- **Diffuse:**
 - **Perhaps disruption of widely distributed complex neural systems can cause EF dysfunction**

THEMES FROM STUDIES OF EARLY PREFRONTAL DAMAGE

- **Importance of PF cortex for social development (possibly primary social/behavioral disability)**
- **Protracted development of PF cortex re: EFs**
- **Inter-hemispheric effects between PF cortices**
- **Early differentiation of rudimentary EFs**
- **Recovery from early PF damage is neither simple nor linear**
 - **Possibly delayed developmental consequences**
 - **Possibly younger more vulnerable (reverse of traditional plasticity principle)**
 - **Pre- and post-injury environments critical factors**
- **Relative sparing of basic cognitive and language abilities: Possibly unusual profiles**

Eslinger, P.J., Biddle, K.R., & Grattan, L.M. (1997). Cognitive and social development in children with prefrontal cortex lesions. In N.A. Krasnegor, G.R. Reid, & P.S. Goldman-Rakic (Eds.), Development of prefrontal cortex: Evolution, neurobiology, and behavior. Baltimore, MD: Paul Brookes Publishing.

- Brain graphics

PART 2

ASSESSMENT

PARADOX OF EF ASSESSMENT

“PROSTHETIC FRONTAL LOBES”

- "Close observation suggests that, in structured testing situations, the examiner acts as the frontal lobes for these patients...." (Stuss & Benson, 1986, p. 105).**
- "Some patients with significant frontal lobe disturbance may perform excellently on "frontal lobe tests" but be significantly impaired making even simple real-life decisions." (Stuss & Buckle, 1992).**

PEDIATRIC EF TESTS & LAB PROCEDURES

- **Cold EFs**
 - **Child versions of adult tests (e.g., Stroop color word naming, WCS)**
 - **Experimental procedures (e.g., go-no-go; anti-imitation tasks; Tower of Hanoi, 20 Questions)**
 - **Developmental tasks with EF spin (e.g., multiple hiding tasks)**
- **Hot EFs**
 - **Flexible decision making with emotionally charged material: e.g., delayed gratification; gambling task**

QUESTION: ECOLOGICAL VALIDITY!!

STANDARDIZED SCALES

- **Child Behavior Checklist**
- **Connors Teacher Rating Scale**
- **BRIEF**
- **Preschool BRIEF (DIAPER 😊)**

BRIEF

Behavior Rating Inventory of Executive Functions

Behavioral Regulation

- **Inhibit**
- **Shift**
- **Emotional Control**

Metacognition/Problem Solving

- **Initiate**
- **Working Memory**
- **Plan/Organize**
- **Organization of Materials**
- **Self-Monitor**

STUDENT PARTICIPATION

The Arc's Self-Determination Scale

- **Autonomy**
- **Self-regulation**
- **Psychological empowerment**
- **Self-realization**

Student participation in IEP development

DYNAMIC ASSESSMENT
ONGOING
CONTEXTUALIZED
COLLABORATIVE
HYPOTHESIS-TESTING
ASSESSMENT

ASSESSMENT

See: www.bianys.org/learnnet

DYNAMIC ASSESSMENT

- **Follow static standardized tests with feedback/support**
 - **Just feedback**
 - **Task modification**
 - **Coaching**
 - **Other scaffolding**
- **For purposes of**
 - **Identifying learning potential (“ZPD”)**
 - **Identifying causes of failure**

WHY TEST HYPOTHESES?

- **Failure on any complex task is multiply interpretable**
- **Complex students can be supported in a variety of ways**
- **Test results do not necessarily indicate how best to achieve success on specific tasks**

COMPREHENSION FAILURE

- **Physical**
- **Sensory/perceptual**
- **Cognitive: attention**
- **Cognitive: orientation**
- **Cognitive: memory**
- **Cognitive: WM**
- **Cognitive: organization**
- **Cognitive: speed**
- **Cognitive: lack of strategies**
- **EF: failure to execute (e.g., initiation, inhibition)**
- **Language**
- **Academic**
- **Motivational/ behavioral**

WHY COLLABORATE?

- **Increase observations and experiments**
- **Increase compliance**
- **Educate family, staff, others**
- **EF training for student**
- **Show respect**

WHY IN REAL CONTEXTS?

- **Inconsistency**
- **Validity problems of standardized testing**
- **Impact of setting, person, activity**
- **Impact of stress**
- **Observe real-world initiation, inhibition, self-monitoring, problem solving**
- **Observe effects of real-world supports and routines**
- **Observe support behaviors of others**

CCH-TA PROCESS

- **Define problem**
- **Identify need for dynamic assessment**
- **Generate hypotheses**
- **Choose which (combination) to test**
- **Create “experiments”**
- **Implement (collaborate in context)**
- **Interpret**
- **Proceed to intervention or another test**
- **Continue to monitor and adjust**

PART 3

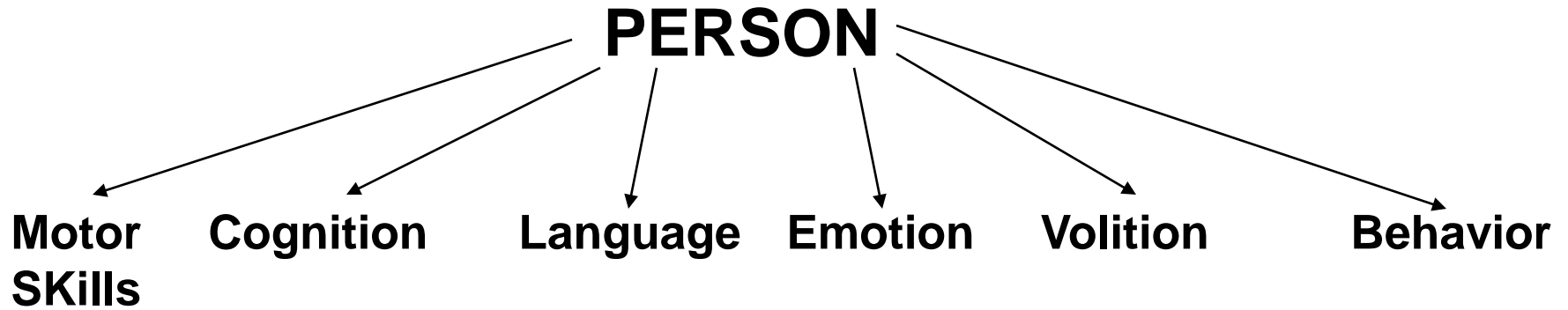
EF/SR

INTERVENTION

THEME: INTEGRATION

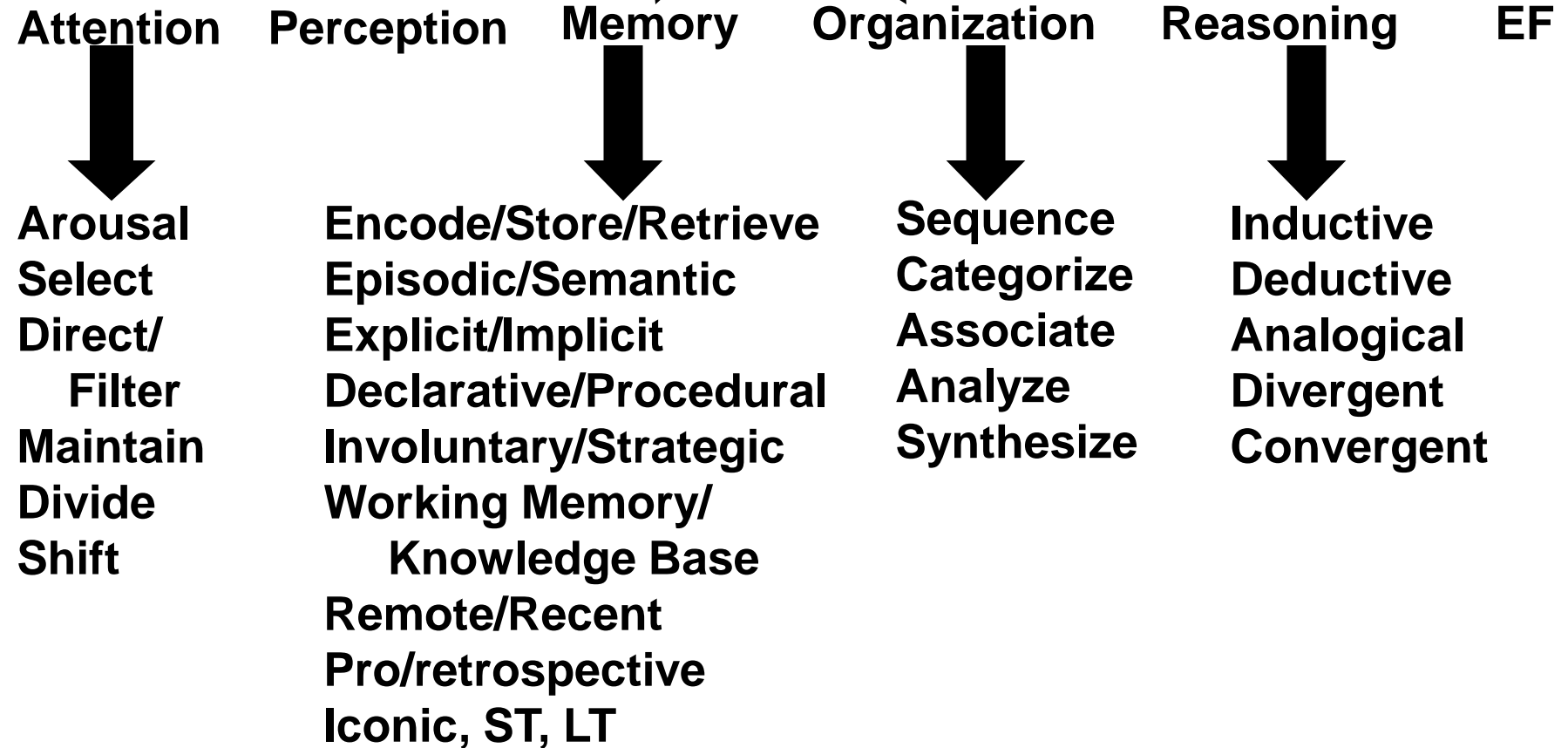
- **Across domains of functioning**
- **Across everyday contexts**
- **Across time and developmental stages and accomplishments**
- **Across the individual's evolving preinjury and postinjury sense of self**
- **Across themes from various disability populations**
- **Across professionals and everyday people**
- **Across systems of care**

**TWO FUNDAMENTALLY
OPPOSING CONCEPTIONS
OF HUMAN REALITY**



Human beings are a collection of relatively independent structures, processes, and systems

John's Cognition



Goals for John: John will:

- 1. Increase duration of maintained attention**
- 2. Increase prospective memory from 3 to 5 minutes**
- 3. Increase category naming from 3 to 5 members per category**

John's Language

Phonology

Syntax

Morphology

Semantics

Pragmatics

Receptive vs.
Expressive
Phrase Structure
Rules
Etc.

Receptive vs.
Expressive
Lexicon
Semantic
Relations
Discourse
Structures

Receptive vs.
Expressive
Speech-act
Competence
Conversational
Competence
Socio-linguistic
Competence

Goals for John: John will

- 1. Decrease mean naming latencies from 3 to 2 seconds**
- 2. Include 5 basic story grammar elements in retellings**
- 3. Use politeness markers in greeting people: 90%**

Alternative Understanding of Human Beings

Sarah

Pursuing personally meaningful goals

**While participating in culturally
valued activities**

**In social, cultural, and historical
contexts**

**Mediated as necessary by individuals
with greater expertise in that domain**

**Using cultural tools, such as
language, category schemes,
mathematics, organizational supports,
domain-specific strategies**

**“And the rest
is abstraction”**

**In the presence of varied
context facilitators and barriers**

Rehabilitation Goals

Sarah will successfully complete ___ meaningful task, with ___ supports, possibly using ___ “tools/strategies”, in ___ context (setting, people, activities), in order to achieve ___ goal.

Possibly focusing intervention attention on some specific aspects of cognition, communication, social skills, behavioral self-regulation, or educational/vocational skills – aspects that are either particularly weak or particularly important for Sarah.

“And the rest is abstraction”

Alfred North Whitehead: Science and the Modern World

“The Fallacy of Misplaced Concreteness”

“The advantage of confining attention to a definite group of abstractions is that you confine your thoughts to clear-cut definite things, with clear-cut definite relations. Accordingly, if you have a logical head, you can deduce a variety of conclusions respecting the relationships between these abstract entities. Furthermore, if the abstractions are well-founded, that is to say, if they do not abstract from everything that is important in experience, the scientific thought which confines itself to these abstractions will arrive at a variety of important truths relating to our experience of nature.....

Whitehead on Abstractions:

“The Fallacy of Misplaced Concreteness” (cont’d)

“The disadvantage of exclusive attention to a group of abstractions, however well-founded, is that, by the nature of the case, you have abstracted from the remainder of things. In so far as the excluded things are important in our experience, your modes of thought are not fitted to deal with them. You cannot think without abstractions; accordingly, it is of the utmost importance to be vigilant in criticizing your modes of abstraction. It is here that philosophy finds its niche as essential to the healthy progress of society. It is the critic of abstractions.”

A.N. Whitehead, *Science and the Modern World* (pp 58-59)

A Community Culture that Values Self-Regulation

Value: Autonomy/Self-Regulation

Shared

Individual

Purpose

Needs/Contribution

“Creed”

Identity

Roles

Roles, Jobs

Plans/Scripts

Routines, Supports

Projects

Projects

Feedback, Adjustment, Community Meetings

W.H.O.

TRADITION:

IMPAIRMENT  **ACTIVITY**  **CONTEXT**

ALTERNATIVE:

CONTEXT  **ACTIVITY**  **IMPAIRMENT**

EF/SELF-REGULATION INTERVENTION

Premises:

- 1. (Deliberate) self-regulation is self-regulatory self-talk**
- 2. Self-regulatory self-talk is internalized from effective adult-child interaction**
- 3. Everyday routines, including routines of interaction, in school and at home should be organized in such a way that the child is engaged, as much as possible and with needed supports, in the executive/self-regulatory dimensions of everyday activities.**

EVERYDAY ROUTINES OF INTERACTION

Everyday routines in school and at home should be organized in such a way that the child is engaged, as much as possible and with needed supports, in the executive dimensions of everyday activities.

ILLUSTRATIONS

- **Tim H: interactive EF routines**
- **Southgate routines**
- **Timmy K**
- **Chrissy**
- **David J**

THEORETICAL SUPPORT: VYGOTSKY

“Higher mental functions evolve through social interactions with adults; they are gradually internalized as the child becomes more and more proficient and needs less and less cuing and other support from the adult.”

SELF-REGULATION

- **Within the Vygotskyan tradition, the development of self-regulation is understood as the gradual internalization/appropriation of well-conceived routines of adult-child interaction. Initially, regulation exists as adult regulation of the child. Gradually, the child practices overt spoken regulation (of dolls, pets, peers, etc.), then spoken self-directed regulatory talk, and finally covert self-regulatory “talk”.**

VYGOTSKY: MAIN POINTS

- 1. Cognitive growth as internalization/ appropriation of well-conceived interaction**
- 2. Dynamic assessment to identify ZPD**
- 3. Teaching as mediated and “scaffolded” participation in valued activities (“apprenticeship”)**
- 4. Gradual reduction of supports as the child gains competence**

Note: NOT clinic-based CBM

PERFORMANCE-ORIENTED TEACHING

CONTEXT

- **Training context**
- **Performance demanded by teacher**
- **Solo performance**
- **Hierarchical organization of tasks**

PERFORMANCE-ORIENTED TEACHING

TASK STRUCTURE

- **Model (teacher)**
- **Performance demand**
- **Performance (student)**
- **Reinforcement OR cues, prompts, simplification, etc**
- **Repeated practice**
- **Transfer procedures**

APPRENTICESHIP TEACHING

CONTEXT

- **Natural context; perhaps projects with a meaningful goal**
- **Social, collaborative activity**
- **Success due to collaboration**
- **Non-hierarchical organization of tasks**

APPRENTICESHIP TEACHING

TASK STRUCTURE

- **Engagement in guided observation**
- **Collaborative, goal-oriented work, with supports as needed**
- **Learner contributes as possible**
- **Ongoing coaching, encouragement, modeling, brainstorming, etc.**
- **Supports systematically withdrawn**
- **Transfer guaranteed because of context and procedures**

**Support/ Scaffolded
Participation/ Socially
Co-Constructed Activity**

“Participating to learn”

vs.

“Learning to participate”

“Automatizing” SR/EF

- **Effortful self-regulation strategies: slow, attention and capacity consuming, relatively difficult to access, subjectively uncomfortable**
- **Automatic self-regulation strategies: fast, not attention and capacity consuming, easy to access, subjectively comfortable**
 - **ex: Seat belts**
- **From effortful to automatic/comfortable:**
 - **Point-of-participation practice**
 - **Success**
 - **Association with compelling sense of self**

Facilitation of Nonconscious/ Automatic Self-Regulation

- Internalized EF scripts habitually associated with specific environmental conditions**
- Internalized sense of self essentially connected to self-regulatory strategies habitually associated with specific environmental conditions**

Thus, for people who are “stimulus bound” due to their disability, the environment becomes the stimulus for nonconscious self-regulation

Illustrations of Nonconscious/ Automatic Self-Regulation

- Investigators have shown that people placed in positions of power tend to pursue goals and use strategies that they associate with power, without being aware of the source of the goals or strategies.**
- Similarly people have been shown to pursue goals and implement strategies associated with specific people (e.g., family members) when primed with a representation of that person (e.g., WWJD)**

Nonconscious Self-Regulation

“Goals can be primed and activated by environmental cues outside of awareness. Once activated, these goals can enhance performance, persistence in the face of failure, and the resumption of disrupted goal-directed behavior in the presence of alternatives.” p. 198

Cervone, D., Mor, N., Orom, H., Shadel, W.G., & Scott, W.D. (2004). Self-efficacy beliefs and the architecture of personality. In R.F. Baumeister & K.D. Vohs (Eds.), Handbook of self-regulation: Research, theory and applications (pp. 188-210). New York: Guilford Press.

POSITIVE INTERACTION STYLE: COLLABORATION

- **Intent**
- **Cognitive support**
- **Emotional support**
- **Meaningful, supported question**
- **Collaborative turn taking**

POSITIVE INTERACTION STYLE: ELABORATION

- **Topics**
- **Elaborative organization**
- **Elaborative explanation**

www.bianys.org/learnnet/

EVERYDAY SR/EF ROUTINES

GENERAL EF ROUTINE

Goal

Obstacle

Plan

(Predict)

Do

Review

What worked?? What didn't work??

General SR/EF Script

“Let’s think about this; we can figure out how to make this work!”

- **Think: Block impulsive response**
- **We: This is collaboration; you are not performing for me**
- **Figure out: This is a problem we can solve**
- **Make it work: The point = achieve your goal**

SPECIFIC SR/EF SCRIPTS: FORMAT

- **Identify the issue**
- **State a reason**
- **Generate a strategy**
- **Offer general reassurance: “There’s always something YOU can do to make it work”**

EXPERIMENT SCRIPT

“THIS WAY OR THAT?”

- **Identify issue or conflict**
- **Try both ways**
- **Identify most successful**
- **General reassurance**

PROBLEM-SOLVING SCRIPT

- **Identify issue or conflict**
- **State the reason**
- **Generate a solution/strategy**
- **General reassurance**

HARD TO DO/EASY TO DO SCRIPT

- **Identify task as hard or easy**
- **State the reason**
- **Generate a strategy (if hard)**
- **General reassurance**

READY/NOT READY SCRIPT

- **Identify ready or not ready**
- **State the reason**
- **Generate a plan (if not ready)**
- **General reassurance**

BIG DEAL/LITTLE DEAL SCRIPT

- **Identify the issue as a big deal or a little deal**
- **State the reason**
- **Generate a strategy (if a big deal)**
- **General reassurance**

“Play to Change Plays” SCRIPT

- **Identify the issue: Change or deviation from routine**
- **State the reason**
- **Generate a strategy (e.g., ask for help)**
- **General reassurance**

SCARY/NOT SCARY SCRIPT

- **Identify situation as scary or not scary**
- **State the reason**
- **Generate a solution/strategy**
- **General reassurance**

MY DEAL/YOUR DEAL SCRIPT

- **This is my deal (or your deal)**
- **It's my deal because**
- **Because it's my deal, this is what I will do...**
- **There's always something that works**

WHAT ABOUT YOU? SCRIPT

- **It's important to know what John thinks/John feels**
- **It's important because...**
- **Here's a way to find out ...**
- **There's always something that works**

The Importance of Part 4

- **“There’s always something that works”**
- **Many people – especially those who have had a hard time in life (school, social life, work) do NOT believe that there is always something that works**
- **Effectively strategic people DO believe that there is always something that works**
- **Therefore Part 4 is a critical component of the SR scripts for many people**

Illustrations

- **Tim H**
- **Watervl.**
- **Tim K**
- **David J**

SR/EF SCRIPTS: DELIVERY

- **Conversational, non-threatening interaction**
- **Well-selected language**
- **Avoid boredom, irritation**
- **Mainly positive: “easy” “non scary” “not a problem” “not a big deal”**
- **Massed and distributed practice (hundreds!!)**
- **Embedded in meaningful activity**
- **Across all everyday partners**

NOT Clinic-Based CBM

- **Superficial, decontextualized self-talk training has not been supported in the research literature**
 - **Clinic-based, out of context**
 - **Self-talk scripts that may not be directly related to everyday life difficulties**
 - **Self-talk scripts devoid of positive associations**

“Genuine” Self-Regulatory Self-Talk

- **Origin in supportive, scaffolded interactions between adults and children during authentic tasks**
- **Development in childhood**
 - **Everyday interaction during meaningful participation**
 - **Child talks to self as running commentary**
 - **Child talks to self in attempt to understand, control, regulate**
 - **Self-talk becomes less audible and more compressed**
 - **Fully inner speech emerges as self-regulation**
 - **Self-regulatory self-talk becomes automatic**
 - **Self-talk may again be audible if tasks are difficult**

General Evidence-Based Practices in SR

Strategy Instruction: e.g., SRSD

- **Self-regulation procedures: Throughout instruction, facilitate**
 - **Identifying task difficulty**
 - **Setting goals**
 - **Planning**
 - **Self-monitoring**
 - **Self-evaluating**
 - **Self-reinforcing**
 - **General strategic procedures like asking for help**
- **Help students help peers**

General Evidence-Based Practices in Strategy Instruction

- **Motivational procedures**
 - **Ensure successful application of strategies**
 - **Possibly compare performance with versus without strategy help – teach correct attribution!**
 - **Or in other ways facilitate an understanding of the personal usefulness of strategies**
 - **Provide systematic positive feedback**
 - **Facilitate the use of self-monitoring, self-evaluating, self-reinforcing systems**
 - **Help students develop a project on the usefulness of strategies**

Study Questions

- **Is it possible for elementary school teachers to acquire a habit of using relevant self-regulation scripts with their students across the curriculum and across the school day given limited instruction and support?**
- **If so, does teacher use of self-regulation scripts improve student self-regulation over the short term (4 months)**

Participants

- **School: Elementary school in mainly white middle class suburb of Albany, New York**
- **Teachers: 5 regular education (grades: K, 2, 2, 4, 4) and 2 special education (one lower, one upper elementary age). All teachers volunteered for the project**
- **Students: All of the students in these classrooms (see note about BRIEF)**

Participants: Teachers

- **5 regular education; 2 special education**
- **All masters degree**
- **1 to 18 years of teaching experience (mean 12.5)**
- **Undergraduate and graduate preparation in SR intervention: By teacher report, minimal to none in every case**

Measures

- **Structured teacher interview: Pre and post**
 - **Early February to early June (i.e., students accustomed to classroom routines at the outset)**
- **BRIEF (Behavioral Rating Inventory of Executive Functions): Teacher Form: Pre and post**
 - **All special education students**
 - **4 or 5 students in each of five regular education classrooms identified by the teachers as especially immature in self-regulation development**

Instruction/Support for Teachers

- 1-hour introduction to the project, concept of self-regulation, and self-regulation scripts**
- Pre-interview in which concepts were elaborated**
- Invitation to use the Self-Regulation Tutorial on the web site (including video illustrations). All but two of the teachers used the web site.**
- 2-3 brief classroom observations for each teacher, with feedback regarding use of self-regulation scripts**
- Invitation to use colleagues as supports: 3 of the teachers highlighted this**

Results: Teacher Use of Scripts

- **All of the teachers reported that they gained comfort in frequent conversational use of at least some SR scripts**
- **This was confirmed by classroom observation**

Results: Scripts Selected

- *Big deal/little deal* and *ready/not ready* selected by all teachers
- *Hard/easy* used to varying degrees by most of the teachers
- *Choice/no choice* used by 3 teachers

Interpretation: Most of the teachers saw SR intervention as more relevant to behavioral and emotional issues than to cognitive and academic issues. None selected G-O-P-D-R.

Results: Manner of Use of Scripts

Variability

- **Some began with elaborated scripts and moved toward telegraphed use as they gained comfort**
- **Others began with telegraphed use and moved toward elaborated use as they gained competence**
- **Others chose elaborated or telegraphed use as circumstances dictated**

Results: Student Comfort with SR Scripts

- All teachers reported that their students were comfortable with SR scripts**
- All teachers reported that everyday conversational use of the scripts was most critical**
- Some teachers taught the scripts and their significance explicitly**
- Some teachers had the students make posters**
- One teacher had students create and video SR vignettes**

Results: Quantitative

- **BRIEF: yet to be analyzed**

Results: Quantitative

Estimated amount of adult time saved for instruction (pre versus post estimated adult time per activity devoted to SR concerns)

- **Regular Education:**
 - **Average 27 minutes/day**
 - **ca. 66 hours/year/classroom**
- **Special Education**
 - **Average 177 minutes/day**
 - **ca. 530 hours/year/classroom**

Results: Quantitative

Estimated number of removals of a student from an activity or classroom (rarely from a classroom):

- **Pre-average 20 (considerable variability)**
- **Post-average 5.8**

Results: Quantitative

Frequency of teacher SR cues/reminders during various classroom activities

- **Pre-Average rating: 3.5 (frequently-to-very frequently)**
- **Post-Average rating: 2.5 (sometimes-to-frequently)**
- **Scale:**
 - **4: very frequently**
 - **3: frequently**
 - **2: sometimes**
 - **1: never**

Results: Qualitative

General Benefit for the Students:

All of the teachers highlighted a number of benefits of the SR project for their students.

Examples:

- general self-reliance**
- improved problem solving**
- increased independence**
- improved self-organization**
- improved emotional regulation**
- increased time for instruction**

Results: Qualitative

General Benefit for the Teachers:

Most of the teachers reported that having a common scripted language for self-regulation:

- increased their level of confidence (average pre: somewhat lacking in confidence; average post: very confident = 2 point average increase)**
- reduced their anxiety during difficult interactions with students**
- created a calmer and less emotional atmosphere**
- helped them proceduralize SR**
- increased teaching/learning time**

Teacher Recommendation

Each teacher recommended that the SR project be generalized to the entire building.

Summary:

Uncontrolled preliminary study:

Can elementary school teachers acquire a habit of using SR scripts with their students with minimal support?

- **YES**

Summary:

Uncontrolled preliminary study:

Do elementary age students benefit from a relatively short period of exposure to SR scripts used in their classrooms?

- **Suggestive evidence:**

- **improved self-regulation;**
- **increased independence;**
- **reduced time engaged in self-regulation-related disruptions; calmer classroom environment**
- **increased time for instruction;**
- **increased calm in the learning environment**

TEACHING THINKING

Children are our apprentices in thinking and self-regulation

- **Think (out loud) with the person**
- **A lot**
- **Interesting and important issues**
- **Highlight the thinking process**
- **Use motivating analogies, metaphors, etc**
- **Use external supports as needed**
- **Be a model of thoughtfulness**
- **Promote experimental orientation**
- **Gradually remove supports**
- **Help the person help others**

SELF-COACHING AND SELF-REGULATION

Possible alternative for older students: Self-regulatory scripts can be explicitly taught as self-coaching: “the coach’s voice in your head that helps you succeed when the game is tough”

HISTORY

Since at least the early 1980s, self-coaching has been used as a metaphor and set of procedures in TBI rehabilitation

Ylvisaker, M., & Holland, A. (1986). Coaching, self-coaching and rehabilitation of head injury. In D. Johns (Ed.), Clinical management of neurogenic communicative disorders. 2nd Edition. Boston: Little, Brown and Co.

Self-Coaching Metaphor

- **Population:** active young people who typically have personal experience and positive associations with sports
- **Self-coaching metaphor:** yields insight into self-regulatory/ “executive system” concerns and potential educational and social goals
- **Upshot:** Individuals who have self-regulatory impairment but who desire effective achievement of goals in their lives often agree to organize themselves around self-coaching procedures despite opposition to other intervention approaches.

Self-Coaching Philosophy

- **Self-regulation is self-regulatory self-talk:**
 - **Plato**
 - **Vygotsky**
 - **Many others**
- **Ideally automatically triggered**
- **Related to CBM (Meichenbaum, 1977), but:**
 - **Context-sensitive (versus clinic-bound)**
 - **Negotiated**
 - **Supported by positive images and associations**
 - **Practiced to automaticity (videos)**

Principles

- **Automatic self-regulation**
- **Participant involvement**
- **Specificity of real-world needs**
- **Negotiation of scripts and metaphors**
- **Self-scripts and communication partner scripts**

FRAMEWORK

GOAL

OBSTACLE

PLAN

DO

REVIEW

WORK? NOT WORK?

Stick with winners; give up losers

Why Self-Observation on Video?

- **Repetition/habituatio**
- **Self-monitoring/self-awareness**
- **Everyday Communication Partner Self-Observation**
- **Education**
- **Concreteness and immediacy**

TEACHING THINKING

- **Think (out loud) with the person**
- **A lot**
- **Interesting and important issues**
- **Highlight the thinking process**
- **Use motivating analogies, metaphors, etc**
- **Use external supports as needed**
- **Be a model of thoughtfulness**
- **Promote experimental orientation**
- **Gradually remove supports**
- **Help the person help others**

Diamond, A., Barnett, W.S., Thomas, J., & Munro, S. (2007). Preschool program improves cognitive control. *Science*, 318, 1387-1388

- Program = “Tools of the Mind” (Bedrove & Leong)
- Focus = inhibition, working memory, cognitive flexibility
- “EF’s are more strongly associated with school readiness than intellectual quotient (IQ) or entry level reading or math skills”
- Tools curriculum based on Vygotsky: 40 EF promoting activities: teach self-talk, dramatic play, memory aids
- Efs promoted during 80% of school day; “Only when EFs were challenged and supported by activities throughout the day did gains generalize to new contexts”
- Tools of the Mind children did substantially better on outcome tasks that emphasized EF than controls
- EFs can be improved in preschoolers; play may be an essential part; improving EFs early may eliminate many later diagnoses (eg ADHD), need for expensive services, and school failure

RELEVANT RESEARCH HISTORIES

SUPPORT FOR CONTEXT-SENSITIVE INTERVENTION

- **Transfer of training**
- **Teaching reading strategies**
- **Teaching cognitive strategies generally**
- **CBM (context-sensitive versus not)**
- **Vocational training**
- **Cognitive intervention generally**

EF/SR Routines as a Component of Behavioral Interventions

Single -subject experiments (9) and case studies

- **Feeney & Ylvisaker (1995): adolescents**
- **Feeney & Ylvisaker (2003, 2005, 2008): young elementary age children**
- **Ylvisaker & Feeney, 1998**

CONTEXT SENSITIVITY: EDUCATIONAL INTERVENTION

Theme emerging from studies of academic strategy intervention:

- **Delivery of cognitive/educational interventions within the context of relevant curricular content (transfer)**
- **Direct instruction with multiple and varied application trials**
- **Long-term (i.e., years)**
- **Intensive (i.e., daily)**
- **Focus on attribution and motivation**

Rand Reading Study Group Review of Research on Reading Instruction

Sweet & Snow, 2002

Principle #3: Explicit: “The explicitness with which teachers teach strategies makes a difference in learner outcomes, especially for students who are low achieving and who profit from greater explicitness.”

Principle #6: Embedded: “Teachers who provide comprehension strategy instruction deeply connected within the context of subject matter learning, such as history and science, foster comprehension development”

THE CONCEPT OF SELF IN COGNITIVE NEUROSCIENCE AND BRAIN INJURY REHABILITATION: METAPHORIC IDENTITY MAPPING

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Resources

- **Ylvisaker, M., & Feeney, T. (2000). Construction of identity after traumatic brain injury. *Brain Impairment, 1*, 12-28.**
- **Ylvisaker, M., McPherson, K., Kayes, N., & Pellett, E. (2008). Metaphoric identity mapping: Facilitation of goal setting and engagement in rehabilitation after acquired brain injury. *Neuropsychological Rehabilitation, 18*(5/6), 713-741.**

To Do:

- **Concept of identity**
- **Identity after brain injury**
- **Metaphoric identity mapping: Concept and procedures**
- **Case illustrations**
- **Pilot study results**
- **Application to children**
- **A variety of theoretical rationales for metaphoric identity mapping**
- **Cautions and concerns**

THAT'S WHAT I AM!

THAT'S WHO I AM!

**RIGHT OR WRONG,
I CAN'T CHANGE THAT**

CARLITO (AL PACINO), CARLITO'S WAY

IDENTITY CONSTRUCTION

Helping individuals with disability construct (or reconstruct) a sense of personal identity that is:

- Satisfying/compelling**
- Organized**
- Adequately realistic**

AND that includes the hard strategic effort needed to be successful with a disability

Identity Mapping and Metaphors: A Continuum of Possibilities



Identity mapping as a respectful "get to know you" procedure

Systematic use of identity mapping and metaphors to enhance goal setting, strengthen engagement in rehabilitation, begin a process of change, and the like

Use of an attractive metaphor to enhance the appeal of ad hoc self-coaching and the like

"Deep" use of identity mapping and metaphors in psycho-therapy

Dimensions of the Continuum

- **Goals of the process;**
- **Needs of the participant;**
- **Abstract thinking abilities of the participant;**
- **Skill and license of the “facilitator”;**
- **Relationship: participant and “facilitator”**

SENSE OF SELF FOLLOWING ACQUIRED BRAIN INJURY

Possibilities:

- **Perplexity**
- **Unawareness: Retention of preinjury self-concept**
- **Denial: Retention of preinjury self-concept**
- **Fragmentation**
- **“I am a victim” (passivity; depression)**
- **“I refuse to be a victim” (anger; aggression)**
- **“I’ve changed; I’ve got my work cut out for me”
(resolve)**

Identity (construed broadly)

- **Sense/definition of self**
- **Can include, but not restricted to role:**
 - **Occupation:** eg, teacher, business man
 - **Social relationships:** eg, husband/wife, friend
 - **Biological relationships:** eg, brother/sister; son/daughter
 - **Quasi-occupation:** eg, helper/volunteer
 - **Avocation:** eg, athlete, musician, artist, collector, etc
 - **Affiliation:** eg, Shriner, Yankee fan
 - **Ability/disability:** eg, smart person, person with a disability, “patient”
 - **Salient attribute:** eg, reliable, dishonest
 - **Spirituality:** eg, child of God, Catholic

Identity

***Identity* refers to the multiple ways individuals perceive themselves, including their values, goals, abilities, impulses, attitudes, action strategies, and the like, as well as their feelings associated with these representations of self.**

Identity

- **We all have multiple identities: “senses of self” – some in competition with others!**
- **Most identities are dynamic/ in flux**
- **We are constantly constructing and adding to “narratives” that go with these “selves”**
- **Identities are often facilitated or imposed by environmental or cultural forces**
- **“Construction of identity” is rarely a deliberate, self-conscious process**
- **Identities are generally “housed” as metaphoric, gut-level meanings, not literal true/false propositions**
- **Identities are generally judged as comfortable/ uncomfortable, motivating/ unmotivating, inspiring/ uninspiring, etc ... not true/false**

Identity

- **Supports a sense of continuity in life; I am the same person I was 1, 5, 20 years ago... and will be 1, 5, 20 years from now**
- **Supports episodic memory: represented as MY memories**
- **Supports intrinsic motivation: e.g., I will work hard because it is a “me” kind of thing to do – not because of the pay-off**
- **Supports goal setting**

Multiple “Selves”

“There is no such thing as an intuitively obvious and essential self to know, one that just sits there ready to be portrayed in words. Rather, we constantly construct and reconstruct our selves to meet the needs of the situations we encounter, and we do so with the guidance of our memories of the past and our hopes and fears for the future.”

**Jerome Bruner, Making Stories: Law, Literature, Life.
New York: Farrar, Straus, and Giroux, 2002.**

“Possible Selves”

Markus & Nurius, 1986

- **Complex mental representations of what I would like to become (“hoped-for selves”) and what I am afraid of becoming (“feared selves”).**
- **Cognitive underpinnings of motivation: give form, meaning, organization, and direction to “gut-level” hopes, fears, goals, and threats.**
- **NOT: My goal is a college degree; RATHER: My goal is me-as-possessing-a-college-degree**

Possible Selves

- **Arise from personal experiences, social and cultural forces – and possibly the planned efforts of clinicians.**
- **Social and cultural influences are often largely negative for individuals with brain injury, focusing on impairments or the self as “unfixable damaged goods.”**

Possible Selves

- **PS: the context for evaluating ones current sense(s) of self.**
- **If PS's are largely negative (feared selves) then a temporary setback will have a profoundly negative impact.**
- **If PS's are largely positive, then temporary setbacks will have minimal impact.**
- **PS: necessarily associated with positive or negative emotions; thus feelings about oneself vary depending on which PS is activated at any give time.**

Identity and Occupation

“It is a commonly used cultural standard in Western society that we tend to frame opinions about people [add: including ourselves] based largely on what they do for a living. When one’s living has been removed or changed by external forces, facing that reality is hard and often avoided.” p. 202

Baptiste, S. (2003). Spirituality at work. In M.A. McColl (ed.), Spirituality and occupational therapy (pp. 193-206). Ottawa, ON: CAOT Publications ACE

Identity and Role

As I am using the term “identity”, identities are in a different dimension from and interact with roles.

Example: “I am an accountant (role). I hate my work, so when I am there, I pretend to be an engaged employee; I fake it. I am a successful phony at work (identity).

**OR: “I am an accountant (role). I love my work and give it 100%. I am “Mr. Commitment”!
(identity)**

Meaning: Role and Identity

- **Many people equate meaning with socially valued roles, especially traditional work (or school) roles and family roles**
- **Where does that leave people who cannot work competitively (at least at pre-injury levels), cannot attend school, and do not have an obvious family role?**

Identity and Culture

Identities that are culturally valued – associated with competence, status, success, talent, interest, etc. – are more likely to be sustained as self-defining identities.

Identities can be associated with personal realities other than work:

- Competence versus incompetence**
- Success versus failure**
- Contributor/producer versus receiver/consumer**
- Freedom versus constraint**
- Nonconformity versus conformity**

Identity and TBI: Themes

- **Identity is often shattered by the effects of the injury on the individual's abilities and roles**
- **Effective reconstruction of an organized, compelling, and reasonably realistic identity is extremely hard, but central to the process of rehabilitation**
- **Rehabilitation goals and strategies will be rejected if they do not “fit” – are “not me”**

Identity and Disability

- **Disability can easily become an identity**
- **Every interaction with a person with a disability contributes in one way or another to that person's identity construction**
 - **“Sick role”**
 - **Learned helplessness**
 - **Defiant oppositional role**
- **One cannot NOT contribute to identity construction in people with disability with whom one interacts**

Five Possible “Selves” after TBI

Nochi, 2000

- **The self as better off than some others**
- **The grown self**
- **The recovering self**
- **The self living here and now**
- **The protesting self**

Meaning and Identity

Rehabilitation professionals as collaborative consultants to the active process of constructing an organized, compelling and satisfying identity/sense of self that is adequately consistent with the facts of life

Four Staff Beliefs That Affect the Individual's Identity Development

- **Optimism & Hope:** Evident in the issues that are targeted and the language that is used when describing and interacting with the individual
- **Respect:** Giving the individual opportunities to participate in culturally valued activities; interacting as a collaborator
- **Appreciating the Influences of Contextual Factors on Behavior.** Requiring an understanding of the cultural and personal contexts and the impact of background setting events
- **Applied Pragmatism.** Recognizing that there is no single “right” solution; moving away from the notion of “consistent” use of a prescribed intervention strategy to “concordance” on the part of all involved.

Sense of Self and Self-Awareness

- **Sense of self is clearly influenced in a variety of possible ways by the clarity and completeness of the individual's awareness of the effects of the injury, and their permanence, magnitude, and implications.**
- **Awareness of the implications of the injury may be folded into identity construction.**

Self-Awareness: Intervention

Range of options: highly confrontational to non-confrontational. The degree of confrontation that is appropriate depends on:

- length of time post injury**
- seriousness of the consequences of unawareness**
- severity of anosagnosia/potential for change**
- emotional fragility**
- age/maturity**
- available resources and support**
- Environment**
- Confidence in the assessment/prognosis**

RELATIVELY LOW CONFRONTATION OPTIONS

- 1. Negotiated assessment tasks and self-assessment**
- 2. Routine conversational executive function scripts
(e.g., hard-easy script; big deal-little deal script;
goal-obstacle-plan-do-review script)**
- 3. Projects: Identifying domains of expertise and,
secondarily, of need**
- 4. Facilitated "product monitoring" tasks to
encourage self-discovery**

Cont'd

- 5. Self-monitoring system**
- 6. Natural consequences of failure**
- 7. Peer teaching**
- 8. Orienting and training their own staff
(e.g., "self-advocacy video")**
- 9. Routine engagement in planning
intervention (e.g., positive futures
planning)**
- 10. Passage of time.**

Relatively High Confrontation Options

- 1. Verbal recitation of deficits**
- 2. Direct presentation of low test results**
- 3. Peer confrontation (in or out of therapy) (e.g., “Hot Seat”)**
- 4. Self-observation on video (attempting challenging tasks)**

Identity Co-Construction: The Process

**Depends on the goal of the process,
relationship with the participant, time
available, professional role and
competence, participant's goals and
obstacles, other**

“IDENTITY MAPPING”: 1

Creating a Relationship

- **Organization of at least one self-identity description – possibly more**
- **Creation of “identity maps” – with or without metaphoric representation**
- **Identification of goals**
- **Identification of obstacles**
- **Identification of possible strategies, tactics**

“IDENTITY MAPPING”: 2

Goal Setting

- Identification of “general vision” of something that the person might like to do or be involved in**
- Identification of an admired person associated with that activity**
- Organization of identity description**
- [Creation of “identity map”]**
- Clarification of goals**
- Identification of obstacles**
- Identification of possible strategies, tactics**

“IDENTITY MAPPING”: 3

Overcome Chronic Obstacles

- **Identification of goals**
- **Identification of obstacles**
- **Identification of possible strategies, tactics**
- **Identification of one or more image, hero, metaphor**
- **Organization of identity description**
- **[Creation of “identity map”]**
- **Supported “practice”**
- **Modification of others’ support behavior**
- **Possibly meaningful project**

“IDENTITY MAPPING”: 4 Psychotherapy

Identity Co-construction: Early in Recovery

- **Search for meaningful metaphors that can make sense of today's hard work without implying permanence of the disability**
- **Example: Mario Lemieux**

JASON: PREINJURY

- **Above average student**
- **Completed 3 years in industrial design**
- **Marines: Discharged**
- **2 jobs; active life; engaged**
- **History of oppositional behavior**

JASON: INJURY

- **Age 24: Severe CHI**
- **Motorcycle-automobile**
- **Primary prefrontal injury**
- **Mild physical impairment**
- **Significant executive function/self-regulation impairment – and related cognitive, behavioral, and communication disability**

JASON: DIAGNOSES

- **Severe TBI**
- **Borderline personality disorder with psychotic features**
- **Psychopathic personality disorder**
- **Narcissistic personality disorder**
- **Antisocial personality disorder**
- **Oppositional-defiant disorder**

JASON: MEDICATIONS

- **Zoloft (anti-depressant)**
- **Depacote (mood stabilizer)**
- **Respirdol (antipsychotic)**

All in relatively low doses; considerable experimentation

POST-INJURY 1ST FOUR YEARS

- **3 months: acute care and inpatient rehab**
- **Discharged self AMA**
- **3 months: marriage, divorce, growing anxiety**
- **2 months: psychiatric hospital**
- **Several months: home, work, school: growing anger, anxiety, drug use**
- **Jail: Weapon incident with motorist**

1st 4 years (cont'd)

- **Home: Brief**
- **Jail: Weapon incident (brother); suicide attempt**
- **3 months: neurobehavioral rehabilitation**
- **3 months: Jail: Attack staff**
- **Psychiatric hospital: Attack nurse**
- **Jail**
- **Home**
- **5 Months: Psychiatric hospital: Poor prognosis**

JASON: NEXT 12 YEARS

- **Successful community living**
- **Systematically decreasing supports**
- **Completed undergraduate degree; began graduate program**
- **Peer counselor: TBI/substance abuse program**
- **Many presentations: NYS DOH**
- **Marriage: June 1999**
- **Self perception: Increasing self-control**
- **Some procedural drift**



Goals:

Simply comply
Others set goals
No goals for self

Feelings:

Anger at driver and all authorities
Inadequacy, dependence
Hopelessness, frustration

Jason the Victim

Action strategies:

No need for strategies; others take
responsibility
No sense of responsibility
Other people's charge

Affiliation/Assoc.

Appearance:

Crutches, casts, etc

People

Therapists, physicians, aides

Places

Hospitals, clinics

Facts:

TBI: 1991

Many injuries

11 weeks: hospitalization

Casts, scars, crutches

Multiple surgeries

Goals:

Freedom
Independence
Retribution (driver, any
source of control)
Victory!!!!

Feelings:

Anger/Oppression
Power/Control
Competence/Independence
Zeal for justice

**Jason the
Marine**

Facts:

Former marine
(Exaggerated) sense of
Improvement
Disjointed life in
disarray

Affiliation/Assoc.

Appearance:

Attempt to project power

People

Everyday people

Places

Everyday places

Action strategies:

When provoked, scorched earth policy
Demonstrate ability and power
Demonstrate others wrong
Experiment with new things
Try therapy (unsuccessful)

Goals:

First rate production
Make a clear statement
Define self

Feelings:

Satisfaction
Accomplishment
Growth
Control
Focus

Facts:

Actor willing to be directed
Director
Mayor
Producer
Successful

**Jason as Clint
Eastwood type**

Action strategies:

Contemplate versus react
Plan for success (daily strategy
formulation sessions;
daily plan sheets; barometer)
Script in advance
Practice taking alternative perspectives
Goal-Plan-Do-Review
Use supports wisely

Affiliation/Assoc.

Appearance:

Appropriate to the context

People

Support people

Non-conflict people

Places

JASON'S METAPHORS

- Clint Eastwood
- Military rank
- Dust storm
- others

JASON'S REFLECTIONS: INEFFECTIVE INTERVENTIONS

- **Restrictive settings (e.g., jails, psychiatric hospitals)**

Jason's response: opposition

- **Unreasonable restrictions**

Jason's response: opposition and loss of respect for staff

- **Training unrelated to personal goals**

Jason's response: increased agitation

JASON'S REFLECTIONS: INEFFECTIVE INTERVENTIONS

- **Biofeedback treatment**

Jason's response: increased agitation

- **Behavior modification with meaningless rewards and punishments**

Jason's response: anger and loss of respect for staff

- **External control of any kind**

Jason's response: aggression

JASON'S REFLECTIONS: EFFECTIVE INTERVENTIONS

- **Maximum choice and control**
- **Well-defined networks of support, specifying their source of help under specific conditions**
- **Use of external executive system supports: “barometer” with concrete preventive rules**
- **Prevention via self-management of antecedents (e.g., build momentum before stressful tasks)**
- **Prevention via advance scripting for difficult interactions**

JASON'S REFLECTIONS: EFFECTIVE INTERVENTIONS

- **Non-threatening reality checks**
- **Engagement in personally meaningful activities**
- **Engagement in contributory projects, including helping others: “Productivity Occupation”**
- **Acceptance of responsibility (associated with feelings of control)**
- **Motivating images and metaphors (including “identity construction” process)**
- **Conservatively prescribed medications (e.g., anti-anxiety agents)**

JASON: NYS DOH COSTS

- **Year before TBI waiver: ca. \$125,000 (4 months psychiatric hospital; 7 months jail)**
- **First four years on waiver**
 - Y1: \$22,207**
 - Y2: \$10,899**
 - Y3: \$10,899**
 - Y4: \$2,640**

Now off the waiver

Chris: Pre-injury

- **Above average student**
- **Considerable moving around during childhood**
- **Diagnosis: ADHD**
- **Diagnosis: Bipolar disorder**
- **History of anger management problems and oppositional/ combative behavior – from preschool**
 - **Worsened by age 16 TBI**
 - **Frequent physical fights**

Chris: Post-Injuries

- **After first injury: Age 16**
 - **Anger management problems worsened**
 - **Frequent physical fights**
 - **Growing abuse of alcohol and drugs (marijuana, crack cocaine, heroin)**
- **After second injury (high speed MVA):**
 - **Return to drugs**
 - **Increased impulse control problems**
 - **Ongoing anger management**
 - **Inpatient substance abuse program**

Goals:

Be top dog
Victory over long run
Be a leader
Not “herd”, but
respect for pack

Feelings:

In control of self
Satisfaction with winning
the LONG race

Values:

Respect from others
Authority through:
Personal strength of character
Wisdom
Collaboration

Alpha Male #1
Chris as Wolf

Action strategies:

Think before acting
Plan
Avoid impulsive aggression
Avoid aggression against the innocent
Avoid people, places, activities that
might overwhelm the wolf
No aggression except threats to life

Affil/Assoc. **Appearance:**

Clean

People

Places:

Not drug haunts

Goals:

Create fear in others

Make no real contribution

Feelings:

Satisfaction when others
are afraid

Sense of weakness of others
not afraid

Values:

Appearance of strength

Dominance with no effort

Alpha Male #2

Chris as

Lion

Affil./Assoc.

Appearance:

Tough guy

People

Places

Action strategies:

Get others to do the work for me

Attack the weak – no competition

No real contribution to others

Goals:

Victories that turn out empty
Admiration from others

Feelings:

Afraid to be found out as weak
Superficial satisfaction
with superficial victories

Values:

Self-importance
Appearance of power

Alpha Male #2
Chris as
GWB/Napoleon

Affil./Assoc.

Appearance:

“bling”: flashy

People

Places

Action strategies:

“Saber rattling”: Threats with nothing
to back them up

Bad judgment: Win short-term battles
that become losses

No long-term vision/planning

Goals:

Win at all costs
Terrorize others
Make others submit
Hide weakness
Possess!

Feelings:

Superiority through violence
Beneath surface: fear and insecurity
Surface control
Power

Values:

Victory at all costs
“Baddest dude on the block”
Possess more than others
Control everything

Alpha Male #4
Chris as
Mr. Hyde

Affil./Assoc.:

Appearance:

Bling
Tough guy

People

Addicts

Places

Drug houses

Action strategies:

Out of control aggression
Fight before you think
Seek out battles
Continue fighting, even when losing
Use bad judgment
Drink and drug!!

Chris: Seven Month Outcome

- **No fights**
- **“Transitional phase”**: Win with words
- **Anecdotal evidence**: Several times turned away from fights
- **Self-report**: New type of strength feels good!!
- **Has gone public in several groups with his new non-aggressiveness**
- **Actively engaged in anger management project**
- **Goal**: College education

- **And then.....**

Goals:

Look good (but feel bad)
Get women to go out
Avoid caring
about anything

Feelings:

Anger
Frustration
Sorrow
Guilt
unhappiness

Facts:

Impulsive, disrespectful
In prison: 7 years
Excluded from public places
Out of control
unsuccessful

“Shithead”

Action strategies:

Act like a “player”
Act like a ladies man
Make excuses to say disrespectful things
Try anything to get close to women
Insult people using humor
Win every fight at whatever cost
Never walk away from provocation

Affiliation/Assoc.

Appearance
Try to look cool
People
Places
restricted

Goals:

Finish the program
Complete a project
Get more work
Create a meaningful
life

Feelings:

Satisfaction
Accomplishment: "one
brick at a time"
Motivation
Control
Pride

Facts:

Construction person
Learn the trade by observing,
Doing, accepting feedback
Work hard
Use specific tools

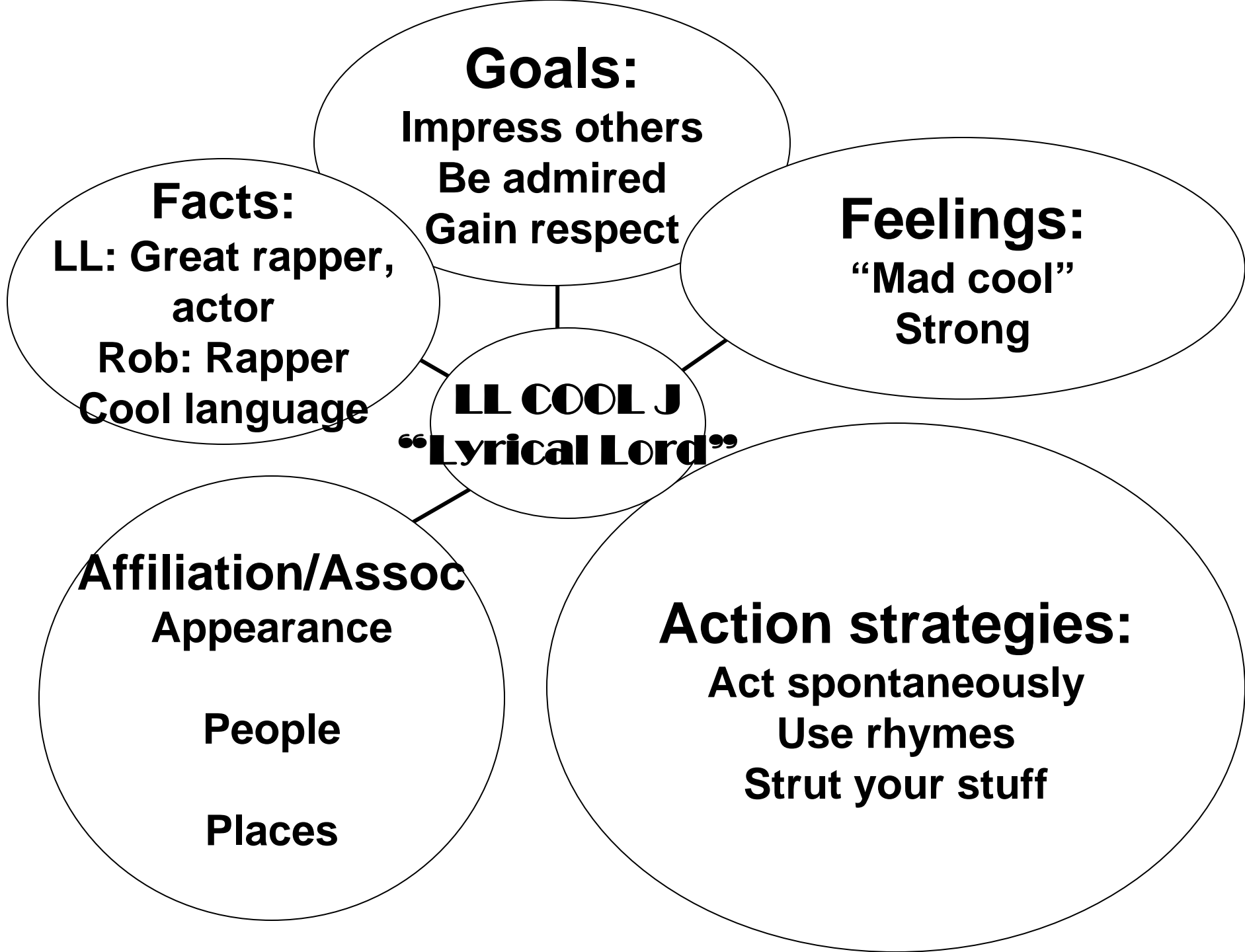
**Master
Mason**

Action strategies:

Practice the craft: positive interaction
Focus on the task: don't get sidetracked
Plan ahead for success
Follow the rules of the job you are hired for
Focus on long-term goals
Be strong: walk away from fights
Have the tools before starting

Affiliation/Assoc

Appearance
Appropriate to the context
People
Support people
Non-conflict people
Places



Goals:

Impress others
Be admired
Gain respect

Feelings:

"Mad cool"
Strong

LL COOL J
"Lyrical Lord"

Action strategies:

Act spontaneously
Use rhymes
Strut your stuff

Affiliation/Assoc

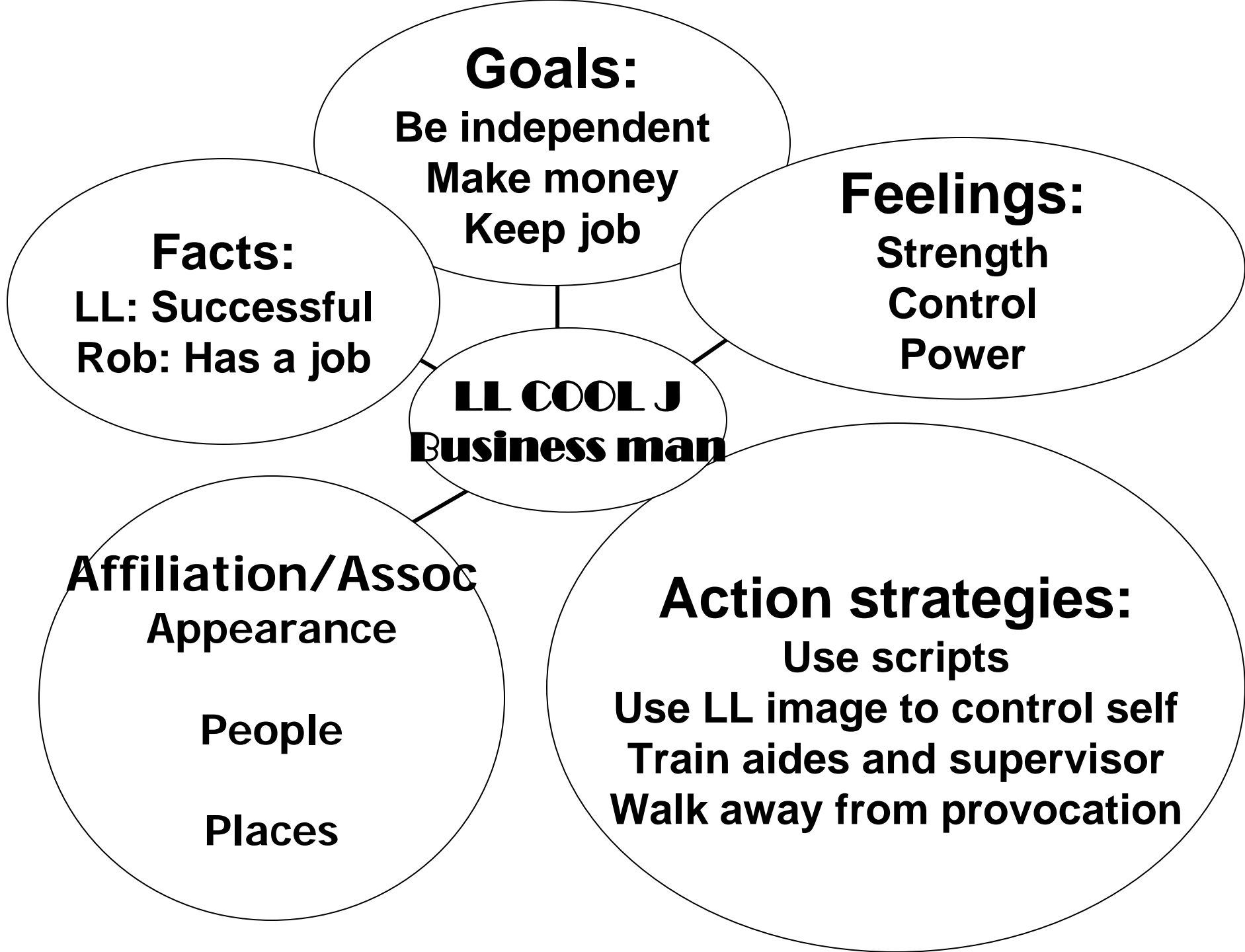
Appearance

People

Places

Facts:

LL: Great rapper,
actor
Rob: Rapper
Cool language



Goals:

Be independent
Make money
Keep job

Feelings:

Strength
Control
Power

LL COOL J

Business man

Action strategies:

Use scripts
Use LL image to control self
Train aides and supervisor
Walk away from provocation

Affiliation/Assoc
Appearance

People

Places

Facts:

LL: Successful
Rob: Has a job



Goals:

Drown sorrows
Deny reality

Feelings:

Weakness
Self-pity
Depression

**Jerry as
"Pitty Pot"**

Action strategies:

Use drugs
Deny reality
Create fictional reality

Affiliation/Assoc

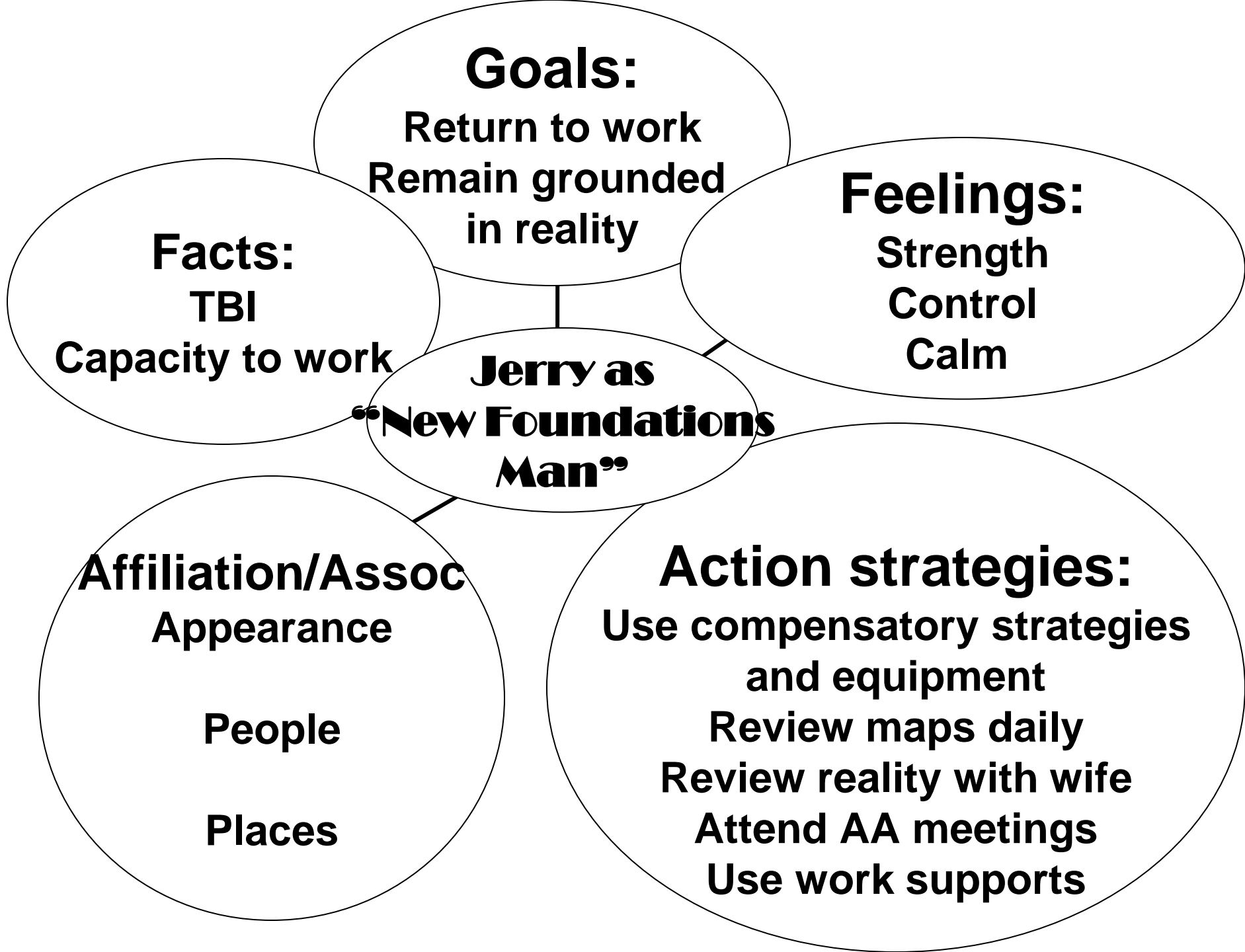
Appearance

People

Places

Facts:

TBI
Lost fortune
Unable to work



Goals:

Return to work
Remain grounded
in reality

Feelings:

Strength
Control
Calm

Jerry as

**“New Foundations
Man”**

Action strategies:

Use compensatory strategies
and equipment
Review maps daily
Review reality with wife
Attend AA meetings
Use work supports

Affiliation/Assoc

Appearance

People

Places

Facts:

TBI
Capacity to work

Goals:

Success on own terms
Avoid control of others
Short-term

Feelings:

Spontaneity
Freedom
Boredom
frustration

Facts:

Unsuccessful: school
Unsuccessful: social
Conflict at home

THE FIDDLER

Appearance:

disheveled

People:

**Few strong
relationships**

Places:

Action strategies:

Act on impulse
Reject others' demands/suggestions
Do not seek/accept help
Reject common sense
**Escape into "autistic stuff" (to reduce
anxiety and avoid demands**
Become upset when others interfere
Procrastinate
Deadlines – PANIC: RABBIT

Goals:

Hide when threatened
Do not let people know you

Feelings:

Fear
Anxiety
Regret
Panic

Facts:

Raised rabbits
Long history of fleeing

THE RABBIT

Appearance:

People:

Places:

Home and school

Action strategies:

If you perceive a threat, run and hide!!

Deceive people: don't let them know what you are thinking

Panic when threatened:

Go berzerk!!

Goals:

Success with difficult tasks
High standard of quality
Long-term

Feelings:

Satisfaction
Pride
Control

Facts:

Successful author
**Married to poet/
collaborator**
Lots of fans

**The Ann
Rice Type**

Action strategies:

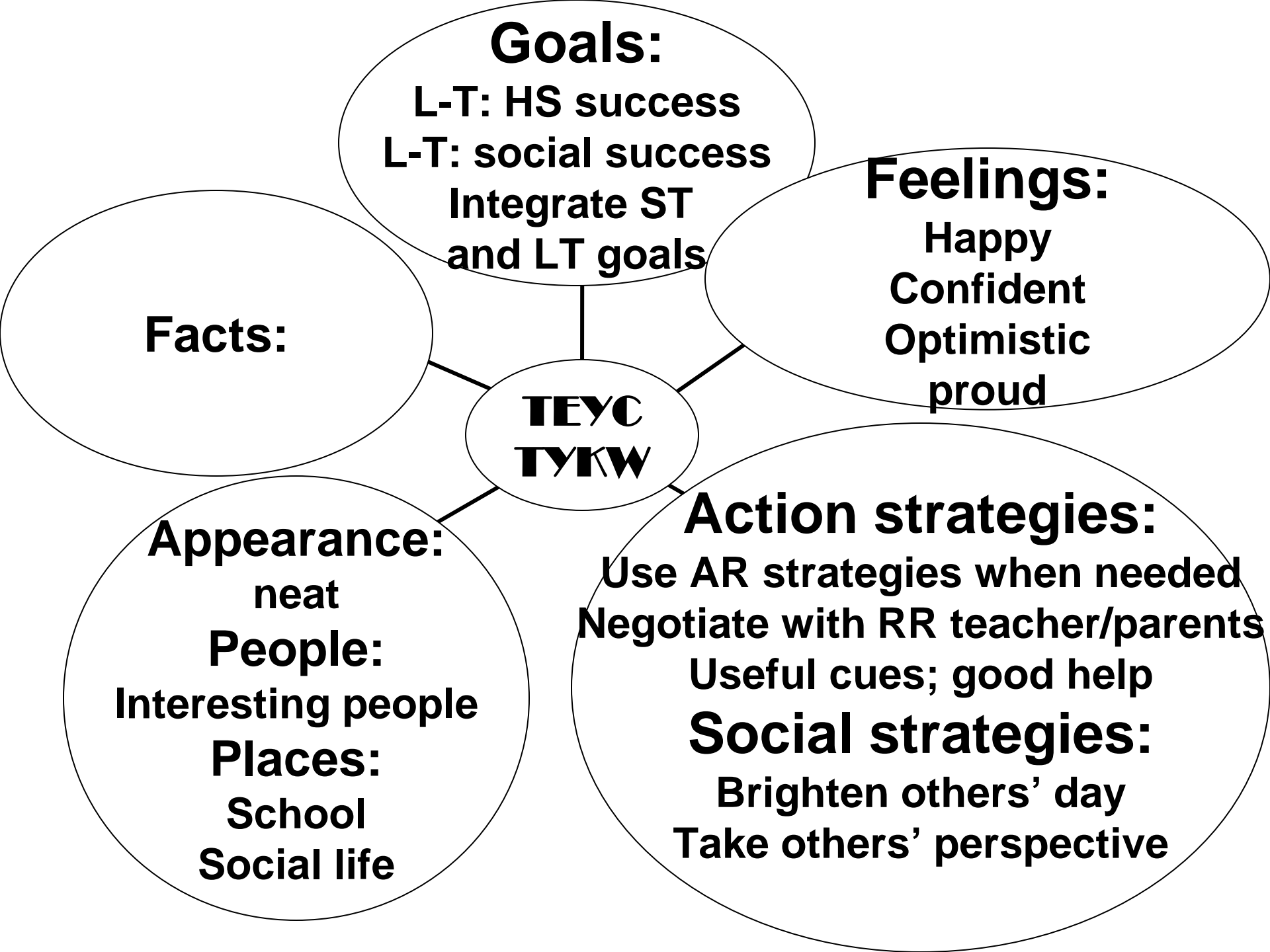
Effort into any difficult school work
Request, accept and use help
Collaborate
Organize!! Meet deadlines!!
Take responsibility
Force self to do things
Choose companions wisely

Affiliation/Assoc

Appearance:

People

Places



Goals:

L-T: HS success
L-T: social success
Integrate ST
and LT goals

Feelings:

Happy
Confident
Optimistic
proud

**TEYC
TYKW**

Action strategies:

Use AR strategies when needed
Negotiate with RR teacher/parents
Useful cues; good help
Social strategies:
Brighten others' day
Take others' perspective

Appearance:

neat

People:

Interesting people

Places:

School

Social life

Facts:

GENERAL CONCEPT

**Construction
Of Meaning**

**New Person,
New Story:
Reality combined
with hope, resolve,
plans, strategies:
Meaningful
Engagement!**

**Synthesis:
Integration**

**"Brain-injured
victim"
Changed forever
Helpless
Hopeless**

**Angry Opposer:
Reactive
Out of control**

**Thesis:
Force 1**

**Apparently irresolvable
conflict**

**Anti-thesis:
Force 2**

**Construction
Of Meaning**

**New Person,
New Story:
Reality combined
with hope,
resolve, plans:
Meaningful
Engagement!**

**Synthesis:
Integration**

**"I am my
old self"
Talented
Successful
Popular**

**"I am a
brain-injury
victim"
Helpless
Self-pitying**

**Thesis:
Force 1**

**Apparently irresolvable
conflict**

**Anti-thesis:
Force 2**

Meaningful Engagement

“In the absence of meaningful engagement in CHOSEN (not “impulsed”) life activities, all interventions will ultimately fail”

- **Meaningful Engagement**
 - **Job**
 - **Volunteer activity**
 - **Personal betterment**
 - **“Recovery”**
 - **Personal relationships**
 - **Avocational pursuits**
 - **Contributory projects**
 - **Group affiliation (eg, church)**

Narrative Therapy

“In striving to make sense of life, persons face the task of arranging their experiences across time in such a way as to arrive at a coherent account of themselves and the world around them The account can be referred to as a story or self-narrative.”

White, M., & Epston, D. (1990). Narrative means to therapeutic ends. New York: W.W. Norton and Company.

Pilot Study of Metaphoric Identity Mapping

Auckland, NZ under the direction of Kath McPherson

- Ylvisaker, M., McPherson, K., Kayes, N., & Pellett, E. (2008). Metaphoric identity mapping: Facilitation of goal setting and engagement in rehabilitation after acquired brain injury. *Neuropsychological Rehabilitation*, 18(5/6), 713-741.**

Qualitative Study

- **5 adults with severe TBI and 4 clinicians completed the study**
- **Clients:**
 - **Long-term post-injury**
 - **Chronic difficulties setting and pursuing meaningful and achievable goals**
- **Clinicians: OT, SW, Physio: Each a “key worker” for their client**

Qualitative Study: Goals

- 1. Explore the usefulness of metaphoric identity mapping in the context of goal setting for individuals with chronic goal setting difficulties**
- 2. Determine the acceptability of metaphoric identity mapping for individuals with TBI and their rehabilitation clinicians**
- 3. Identify obstacles to the successful use of metaphoric identity mapping**

Participants

- **Age range: 27 – 60**
- **Time post: 3 – 29 years**
- **Gender: 4 male; 1 female**
- **Pre-injury occupation: 3 students, 1 physician, 1 unemployed**

Orientation for Clinicians

- 1. Initial information session**
- 2. Second training session in which the clinicians role played both client and clinician roles in identity mapping**
- 3. Individualized support as needed**
 - Additional information sessions**
 - Ongoing support and progress monitoring**
 - Specialist participation in a clinical session**

Intervention Procedures

- **Identity procedures used in the context of clinical work at least once a week for 6 weeks**
- **Duration of clinical sessions varied, but never exceeded 2 hours**

Research Methods

- **Purposeful sampling of TBI participants**
- **Semi-structured interviews of clients and clinicians**
- **Independent review of interview data by two investigators to derive categories/ themes**
 - **Discussion and systematic back-checking to achieve consensus**
- **Goal Attainment Scale**

Results: Themes

- 1. Both clients and clinicians found the identity mapping process to be acceptable.*
- 2. Identity mapping procedures were found to be useful for engaging participants in identifying meaningful goals.*
- 3. Clients and clinicians recognized the value of setting client-centered goals.*

Despite disciplinary pressures to the contrary

Themes

- 4. Cognitive impairments posed a potential threat to the effectiveness of identity mapping procedures.*

Suggesting a need for more effective use of cognitive support and prosthetics, including graphic organizers, cross-disciplinary integration, videotaped sessions for review, involvement of everyday support people, and the like

Themes

5. Identity-related goal setting requires a ‘mind shift’ for many clinicians as well as clinical skills that not all rehabilitation clinicians possess.

Suggesting a need for more effective training
in goal-oriented identity counseling across
rehabilitation professions

Goal Attainment Scale

- **4 of the 5 clients achieved their goals (2 goals per person) at expected or higher levels on the GAS**

Application to Children

- **The procedures of metaphoric identity mapping have been used with many adolescents**
- **With younger children (preschool and elementary school), the procedures differ**

Metaphoric Identity Construction with Young Children

Step 1: Create a classroom unit on heroes

- Read stories or watch videos**
- Identify the heroes**
- Discuss what makes the heroes heroic**
- Flexibly identify many heroic qualities, including qualities important for children with disability, like working with others, seeking and accepting help, working hard, etc**

Metaphoric Identity Construction with Young Children

**Step 2: Invite the children to identify one or more
hero for themselves**

- Work with the children to ensure reasonable
heroes**
- Work with the children to identify qualities of
the hero that are important qualities for that
child**

Metaphoric Identity Construction with Young Children

Step 3: Use individualized “hero talk” to motivate and reinforce behaviors that are desirable for individual children

Examples:

- **“Great! You’re just like [hero] when you help your friends”**
- **“This is hard for you so you might need to be like [hero] and ask for some help”**

**THEORETICAL AND
INDIRECT EMPIRICAL
SUPPORT**

**EDUCATIONAL
PSYCHOLOGY**

Strategies and “Possible Selves”

Borkowski, Chan, and Muthukrishna (2000):

An effective strategy user “has concrete, multiple images of ‘possible selves,’ both hoped-for and feared selves in the near and distant future.” (p. 5)

“Students need to visualize themselves in near and far time frames in order to develop meaningful goals that will actualize the metacognitive systems at critical moments of difficulty and frustration in the course of learning and problem solving. Thus, the concept of possible selves, though understudied and not well understood, may eventually be useful in understanding why strategies are abandoned in adolescence or adulthood, in both school and workplace.” (pp. 5-6)

Educational Psychology 2: Graphic Advance Organizers

Importance of Advance Organization

Providing individuals with clear orientation to their tasks – organization – is known to be one of the most effective teaching procedures, particularly for students with learning problems

Advance organization is especially important for individuals who:

- Lack background information**
- Have difficulty organizing information for effective storage and easy retrieval**
- Have difficulty paying attention**
- Lack motivation**
- Are anxious and fearful of failure**
- Are inactive during learning activities**

Individuals with TBI (especially frontal lobe injury)

- May lack or have difficulty accessing organizing schemes (managerial knowledge units)**
- May fail to initiate use of available organizing schemes when they are relevant**
- Have difficulty retrieving information that is not effectively organized**
- Have difficulty focusing attention**

Graphic Organizers and Memory

- **Graphic organizers improve learning and memory at the levels of encoding new information, storing it, and subsequently retrieving it.**
- **Knowledge is stored in organized systems**

Bulgren & Schumaker Evidence Review

- **19 studies of advance organizers**
 - **All with adolescent subjects**
 - **5 studies: just LD students**
 - **14 studies: LD, low achieving, normally achieving**
 - **All instruction in subject areas**
 - **Experimental design**
 - **17 group designs**
 - **2 reports of single subject designs**
 - **Advance organizers (KU-CRL)**
 - **7 verbal organizers**
 - **12 graphic organizers**

Bulgren & Schumaker Evidence Review

- **All studies reported positive results**
 - **group studies achieved statistical (and clinical) significance**
- **Advance organizers, including graphic organizers, can substantially improve learning of adolescent students with learning disabilities, low achieving students, and average achieving students**

THE CONCEPT OF SELF IN COGNITIVE PSYCHOLOGY: THE ROLE OF METAPHOR

“INTERACTING COGNITIVE SUBSYSTEMS”

Philip J. Barnard

Teasdale, J.D., & Barnard, P.J. (1993),

Affect, Cognition, and Change.

Hillsdale, NJ: Erlbaum

Interacting Cognitive Subsystems (P. Barnard)

**Propositional Code: Semantic meanings;
knowing that ...**

**Implicational Code: Generic, holistic,
emotional meaning**

- **Not true/false, but rather motivating vs disheartening; inspiring vs. boring; etc**
- **Communicated by narrative, symbol, metaphor, image, etc**
- **Includes sense of self**
- **Connected to one's "gut"**

Metaphor and Sense of Self

- **One tradition within philosophy and linguistics: Thinking (and talking) about the self is essentially metaphoric**
- **Lakoff and Johnson, Philosophy in the Flesh**

Metaphor and Concreteness of Meaning

- **Metaphors are sometimes said to (1) be “abstract” in their meaning and (2) require two levels of processing**
- **However, well understood metaphors can be (1) quite concrete in their meaning and (2) processed without processing a literal interpretation**

THE CONCEPT OF SELF IN CLINICAL PSYCHOLOGY

ICS AND PSYCHOTHERAPY

PRIMARY TASK OF PSYCHOTHERAPY:

"TO CREATE, IN SITUATIONS THAT MIGHT OTHERWISE ELICIT MALADAPTIVE EMOTIONS, ALTERNATIVE SCHEMATIC MODELS (GENERIC, IMPLICIT MEANINGS) THAT DO NOT PRODUCE DYSFUNCTIONAL EMOTIONAL REACTIONS." (JOHN TEASDALE, 1997, P. 148)

THE CONCEPT OF SELF IN NEUROPSYCHOLOGY

AUTONOETIC CONSCIOUSNESS

- **Consciousness of the self as a continuous entity across time (Tulving, 1985)**
- **Associated with episodic memory**
- **Associated with the ability to:**
 - 1. maintain stable personal goals**
 - 2. organize behavior to achieve the goals**
 - 3. monitor behavior in relation to the goals**
 - 4. inhibit impulses inconsistent with the goals**
 - 5. modify behavior in the event of failure**

AUTONOETIC CONSCIOUSNESS

- **Associated with ventral frontal lobe: R>L**
“The right frontal lobe does serve as a specific convergence site for all of the neural processes essential to affectively personalize higher order experience of self and to represent awareness of that experience” (Stuss & Alexander, 1999)
- **Associated with self-regulatory disturbances following TBI** (Levine, in press; Levine et al., 1999)

Sense of Self: Neuropsychology

Stuss, Tulving, and colleagues:

**Ventral prefrontal areas (R>L):
convergence zone for the neural
processes that enable humans to
construct and maintain a reasonably
organized and stable sense of
personal identity**

“IDENTITY MAPPING”

OBSTACLES

- **Oppositionality**
- **Working memory**
- **Need for repetition**

STRATEGIES

- **Self-instruction**
Self-selected metaphors
Peer support
- **Metaphoric compaction**
video learning trials
- **Video negotiation**
video self-modeling

“IDENTITY MAPPING”

OBSTACLES

- **Concrete thinking**
- **Somatic markers**
- **Environmental support**
- **Maps = static;
reality = dynamic**

STRATEGIES

- **Graphic organizers**
familiar metaphors
- **Positive role; success**
Compelling metaphor
Peer support
- **Peer/caregiver routines;**
- **meaningful engagement**
- **Present “maps” as narratives**

Identity Mapping: Cautions

- **Professional competence**
 - **To Do: ensure competence; collaborate**
- **Emotional fragility**
 - **To Do: screen**
- **Professional imposition**
 - **To Do: Work within the person's domain of meaning**
- **Cognitive prerequisites**
 - **To Do: interact at the appropriate level**
- **Meaningful language**
 - **Know the person well!**

Identity Mapping: Cautions

- **Getting started: Engagement**
 - **To do: start small? Indirectly?**
- **Dangerous metaphors**
 - **To Do: avoid**
- **Negative use (e.g., “nagging”)**
 - **To Do: avoid**
- **Getting stuck; flexibility**
 - **To do: flexibility with metaphors**
- **Heroes and victims**
 - **To do: strike appropriate balance**
- **Time post injury**
 - **To do early: “provisional”**

Identity Construction: Common Mistakes

- 1. Abrupt, unprepared initiation**
 - Often need to “back in”**
- 2. Over-reliance on “maps”**
- 3. Insufficient client-clinician relationship**
- 4. Forced metaphors; insufficient sensitivity to personal complexity**
- 5. Insufficient review/automization**
- 6. Insufficient attention to real-world success with positive identities; move out of the clinic into the real world**
- 7. Failure to flexibly adjust; move on**

But I Need To Be Me

“One thing you cannot copy and that is the soul of another person or the spirit of another person”

Yogi Bhajan

“If you can’t imitate him, don’t copy him”

Yogi Berra

BUT the point is not to become another, but rather to internalize a satisfying concrete image of a life and choices that facilitates successful choices and actions