European Symposium on Fluency Disorders

A Rationale for Therapy Goals and Principles of Success

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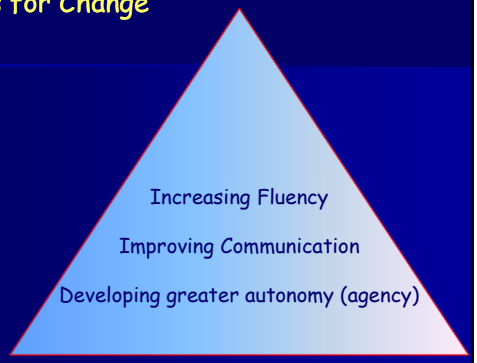
Goals for Change



Agentic Behavior

"Agency is thought of as the ability to live life and achieve a voice in a literal as well as a metaphorical sense; or you could think of it as having a lifestyle where the person can act for themselves and speak on their own behalf." (p. 301)

Monk, G., Winslade, J., Crocket, K, & Epston, D. (1997). *Narrative therapy in practice*. San Francisco, CA: Jossey-Bass Publishers.

Drewery, W., Winslade, J., Monk, G. (2000) Resisting the dominating story: Toward a deeper understanding of narrative therapy. In R. Neimeyer & J. D. Raskin (Eds.). *Constructions of Disorder*. Washington, D.C.: American Psychological Association.

"Health, in our view, has much to do with the capacity for agency and less to do with the absence of disease." (p. 256)

Evidenced Based Treatment

Parachutes reduce the risk of injury after gravitational challenge, but their effectiveness has not been proved with randomized controlled trials
(Smith & Pell, 2003)

Evidenced Based Practice and the Medical Model

Sackett, D. L., Strauss, S. E., Richardson, W. S., Rosenberg, W., & Hayes, R. B. (2000) *Evidenced-based medicine*. Edinburgh: Churchill-Livingston.

- ". . .the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients . . .
- ". . . the integration of best research evidence with clinical experience and patient values."

The medical model

. . . implies that there are *specific therapeutic ingredients* necessary for the remediation of a disorder; thus manuals are developed in order to specify clinician adherence to the ingredients.

The gold standard: RCTs

Ethical issues & other problems*

- Withholding treatment from controls
- Learning from previous treatment(s)
- Compelling but superficial evidence
- Support for "brands"

*See Ratner, N. (2005). Evidenced-based practice in stuttering: Some questions to consider. *J. Fluency Disorders*, 30(1), 163-188.

Other Problems

- Tyrannized by evidence (Sackett et al, 2000)
- Evidenced Based Practice as a club
- Ratner (2005) our real choice is not between . . .
- some efficacious treatments are not acceptable
  - intention-to-treat
  - non-compliance
- currently without substantial evidence ≠ without substantial value

Westen and Morrison (2001). *Journal of Counseling and Clinical Psychology*, 69, 875-899

"To infer that one treatment is more efficacious than another because one has been subjected to empirical scrutiny using a particular set of procedures and the other. . . has not is a logical error." (p. 878)

- [There is] a need to distinguish the notion of empirically *unvalidated* from empirically *invalidated* treatments
- Limits development and application of new approaches

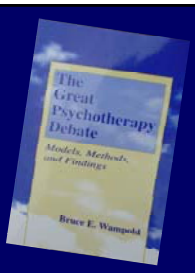
Beyond efficacy data indicating that a treatment works . . .

we need to know **why** it works so . . .

we can understand the cause-and-effect relationships that are operating and adjust a protocol for individuals and circumstances, especially when things don't work

Following Psychology

Bruce Wampold (2001) and the Common Factors Model



- Consistent findings of uniform efficacy across treatments provide indirect evidence that specific ingredients associated with treatment approaches are *not* responsible for treatment benefits
- Indications that manuals decreased treatment effect

Wampold's Findings (2001, p. 205)
Effects for Treatment Aspects

Descriptor	Proportion of Variance	Effect Size
Tx vs. Control (absolute efficacy)	13%	0.80
Tx A vs. Tx B (relative efficacy)	0 - 1%	0.20
Tx Ingredients	0%	0.00
Placebo (common factor)	4%	0.40

Wampold's Findings (2001, p. 205)
Effects for Treatment Aspects

Descriptor	Proportion of Variance	Effect Size
Therapeutic alliance (common factor)	5%	0.45
Clinician Allegiance (common factor)	10%	0.65
Clinician competence	6 – 9%	0.50 – 0.60

Proportion of variability due to the clinician ranges up to 70%

Miller, S. D., Duncan, B. L., & Hubble, M.A. (1997) *Escape from Babel: Toward a Unifying Language for Psychotherapy Practice*. W. W. Norton & Company, New York & London

. . .based on 40 years of empirical and clinical research that facilitate positive change in clients regardless of the therapeutic approach.

Factors accounting for positive Tx outcomes:

Extra-therapeutic events:	40%
Client-therapist alliance:	30%
Placebo effects:	15%
Method or technique:	15%

Wampold & colleagues concluded . . .

A Contextual (or Common Factors) Model does a better job of explaining therapeutic change than the Medical Model.

Predicted by:
Rosenzweig, S. (1936), Smith and Glass (1977)

Beginning to find similar results in SLP

The equivalency of both validated and empirically-informed treatments in fluency disorders

- Hancock, K., & Craig, A. (1998). Predictors of stuttering relapse one year following treatment for children aged 9 to 14 years. *Journal of Fluency Disorders*, 23, 31-48.
- Huinck, W. J. & Peters, H. F. M. (2004). Effect of speech therapy on stuttering: Evaluating three therapy programs. Paper presented to the IALP Congress, Brisbane.
- Franken, M. C., Van der Schalk, C. J., & Boelens, H. (2005). Experimental treatment of early stuttering: A preliminary study, *Journal of Fluency Disorders*, 30, 189-199.
- Herder, C. Howard, C., Nye, C., & Vanyckeghem, M. (2006). Effectiveness of behavioral stuttering treatment: A systematic review and meta-analysis. Contemporary Issues in Communication Science and Disorders, 33, 61-73.

For Example

Herder, C. Howard, C., Nye, C., & Vanyckeghem, M. (2006)
Meta-analysis of 11 treatment studies

Descriptor	Proportion of Variance	Effect Size
Tx vs. Control (absolute efficacy)	13%	0.91
Tx A vs. Tx B (relative efficacy)	0 - 1%	0.21

Concluded that the critical elements of successful therapy were most likely *common factors* observed across treatment approaches or factors related to the clinician delivering the treatment.

Similar findings in other areas

- Gillam, RG., Loeb, D F., Hoffman, L M., Bohman, T., Champlin, C A., Thibodeau, L., Widen, J., Brandel, J., & Friel-Patti, S. (2008). The efficacy of Fast Forward language intervention in school-age children with language impairment: A randomized controlled trial. *Journal of Speech, Language, and Hearing Research*. 51, 97-119.
- Law, J., Garrett, Z., & Nye, C. (2004). The efficacy of treatment for children with developmental speech and language delay/disorder, *Journal of Speech, Language, and Hearing Research*. 47, 924-943.
- Robey, R., (1998). A meta-analysis of clinical outcomes in the treatment of aphasia. *Journal of Speech, Language, and Hearing Research,* 41, 172-187.

Developing Expertise

Berliner, D. C., (1994). Expertise -The wonder of exemplary performances, In J. N. Mangieri,& C. C. Block, (Eds.) *Creating powerful thinking in teachers and students*. Fort Worth, TX: Holt, Rinehart & Winston.

- Novice
- Advanced Beginner
- Competent
- Proficient
- Expert
  - Characteristics
  - Requirements

The Novice

- Tends to act deliberately; focus on context free rules (e.g., driving)
- relatively inflexible
- pays attention to protocol & rules
- labeling & attaching terms to activities

[Characteristic of: students and first year professionals]

Advanced Beginner

- like the novice, tend to set up barriers to keep authority in their own hands.
- although they now know the rules they are unsure what to do/not to do during unusual circumstances (driving on ice, fog)
- begin to learn when to ignore or break rules

[Characteristic of second and third year professionals]

Competency

- have motivation & additional experience
- make own choices, setting priorities & strategies
- takes responsibility for outcome (their plan)
- learn what to attend to (or not)
- develop a sense of timing

[Characteristic of professionals after 3+ years.]

Proficiency

- develop an intuitive sense of situation; able to make micro adjustments (riding a bike)
- take a holistic approach; see patterns others don't
- able to predict events with greater precision

[Characteristic of 5+ year professionals]

To Achieve expert performance

- Focus and excel in specific domain(s)
- great dedication and persistence
- practice
  - 10-20k hours for chess players
  - 10-15k hours of teaching
  - read 100,000 X rays)

Characteristics of Experts

- perform appropriately and effortlessly
- become one with the activity - driving, flying, speaking
- appear to be non-analytic and non-deliberative
  - (e.g., martial artist, fluent speaker)
  - deliberate calculation is not necessary
  - not easily described as deductive or analytic behavior

Wayne Gretsky 

Expert Instructors (& Clinicians)

- able to transfer their ability to new and changing situations
- willing to change strategy when appropriate
- flexible in approach, not likely to follow a manual
  - opportunistic about ways to connect and change (rather than following pre-planned approach)
  - consider alternative responses, follow the lead of the learner
- become integrated individual; focus moves from self to the other person; unusually sensitive to the affective concerns of the learner.

Decision Making with Rules & Principles

Rules - specific prescriptions for regulating or evaluating:

- formalized, consistently applied, often quantitative
- follows a prescribed or programmed approach & specific techniques
- work best when the activity is
  - simple, context free
  - results in "gaming" the rules

Principles

. . . Are less specific and clear cut

- Emphasize expert discretion, intuition, personal knowledge
- Qualitative and contextual
- Allows choice of several approaches and associated techniques
- Work best when the activity is - complex, dynamic, contextual

4 Principles of Therapeutic Change
(common factors across treatments)

- Move *toward* rather than away from the problem
- Assume the *responsibility* for taking action
- *Restructure* the cognitive view of the self and the problem
- Recruit the *support* of others

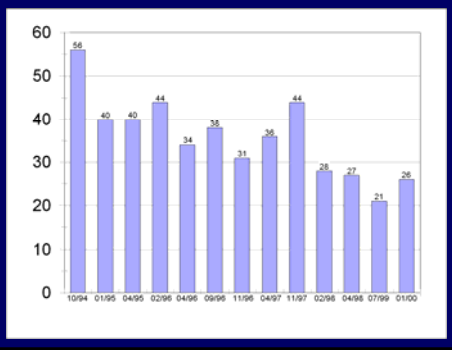
Locus of causality

- Who is in charge . . . me or the stuttering?
- Self-reporting by the speaker
- How to determine?

Locus of Control - 17 item scale (Craig, et al. 1984)
* a single dimensional trait construct

Pawns & Origin Scaling
* a two dimensional state construct

LCB scores for an adult female with severe stuttering over six years of treatment.



Origin and Pawn
(DeCharms, 1968)

Self-perception of one's locus of causation:

- Origin: originator of behaviors (internal - agency)

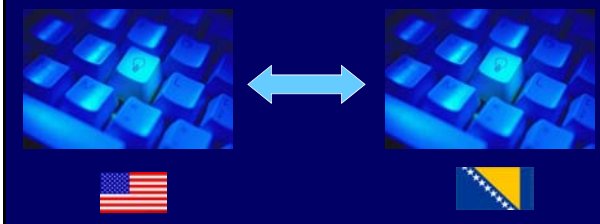
- Pawn: influenced by others/environment (external - helpless)

Origin and Pawn Scaling

- A psychological state is reflected in a language that a person uses
- Less restrictive than the LCB scale (a limited set of 17 specific, clinician-provided responses)
- Individual verbal or written responses by the speaker to an open-ended question
- Thus: more sensitive and valid than the LCB?

Westbrook, M. T., & Viney, L. L. (1980). Scales measuring people's perception of themselves as origins and pawns, *Journal of Personality Assessment*, 44, 167-174.

Manning, W., Hodak, M., & Plexico, L.
2005 ISAD Conference



Origin and Pawn
(DeCharms, 1968)

- Self-perception of one's locus of causation
- Origin: originator of behaviors
  (internal — agency)
- Pawn: influenced by others/environment
  (external — helpless)

Examples of Pawn Statements (P)

. . .but sometimes it looks like progress is coming too slow and that demoralize me totally from time to time. (P) I am 22 years old now, and I don't know how much time I have left for overcoming stuttering in order to achieve normal life. (P) I feel like I'm spending best years of my life in the "mud", (P) not using all the available opportunities out there. (P) Despite the fact that I understand stuttering better now, some emerging fears are making progress difficult: (P) If I don't succeed in time I don't know how my life is gonna turn out. (P)

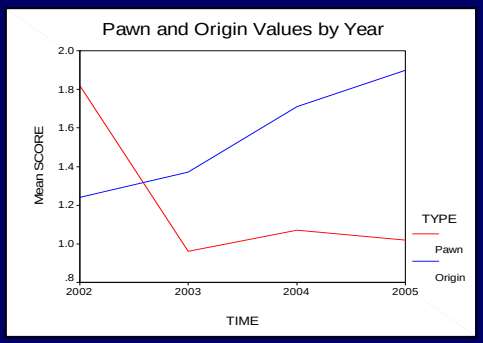
Examples of Origin Statements (O)

But I am trying to enter them (stuttering blocks) without avoiding and using tricks. (O) But I am gaining more and more self-confidence, (O) and I think it is the most important thing in all this. Also I feel much more freedom (O) as I am accepting my stuttering (O) and decreasing emotional attachment and sensibility to it. I am now in position to feel and to see the full potential of the struggle free life (O) that I can achieve (O) if I put enough effort in this process of change. (O) Generally speaking I am now focusing more on reducing fear and emotional tension, (O) on improving the quality of my life, (O) than on techniques for improving fluency.

Examples of Origin Statements (O)

I think it will be much easier to use those techniques (O) when I substantially improve my self-confidence and psychological health or life quality in general. I already achieved that in some extent (O) through facing feared situations, voluntary stuttering and changing negative attitudes, (O) but there is still a lot to be done in the coming weeks, months and years. (O) Also I am trying to increase physical activities (O) and to engage in some sport, (O) because I noticed such activities are contributing significantly to increasing my self-confidence. (O)

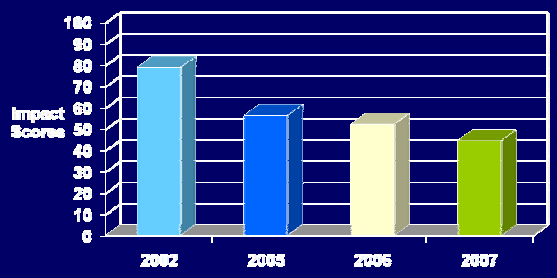
Manning, W., Hodak, M., & Plexico, L. Letters from Sarajevo. 2005 ISAD Conference



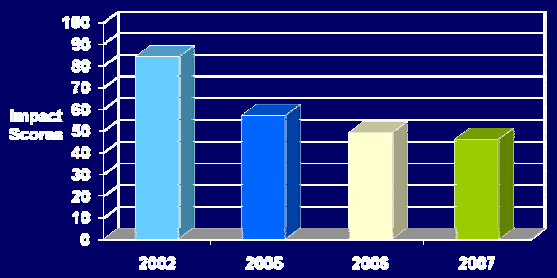
Yaruss, S. & Quesal, R. (2006). Overall assessment of the speaker's experience of stuttering (OASES)*. Cite Journal of Fluency Disorders, 31, 90-115.

*Available throughPearsonAssessments.com

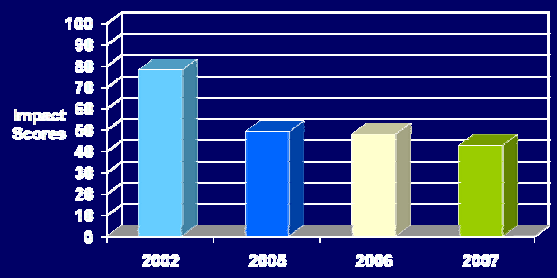
OASES: Total Impact Scores by Year



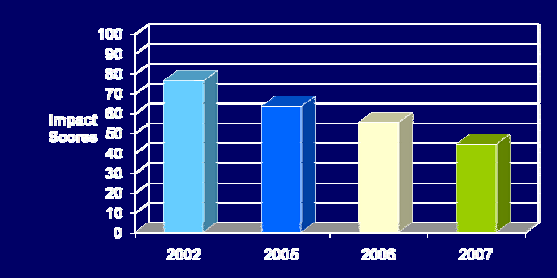
Oases I: General Information



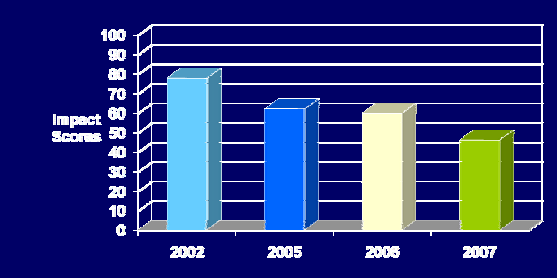
Oases II: Reactions to Stuttering



Oases III: Communication in Daily Situations

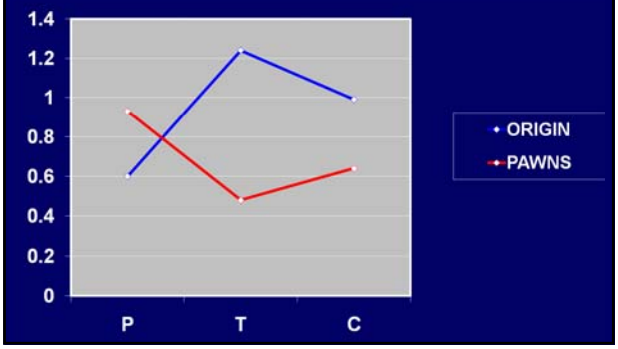


Oases IV: Quality of Life



Plexico, et al. (2005) ASHA

Origin and Pawn Scores by Past (P), Transitional (T) and Current (C)



Origin and Pawn Scaling for Adults who Stutter:

Documenting Changes in Self-Perception During Treatment

Kyungjae Lee, Ph.D.
Oklahoma State University

Goals of the investigation

- Achieve better reliability from previous studies
  - Refine guidelines for scoring
- Determine patterns of Origin and Pawn scores as a result of treatment
- Determine concurrent validity with other measures of therapeutic change
- Determine the relationship between Origin & Pawn scores & the LCB

Participants

- 20 adult native speakers of English who stutter
  - $\bar{X}$ age: 26 yrs old
  - 15 males, 5 females
- 3-week intensive stuttering treatment provided by the American Institute for Stuttering in NYC

Pre- and post-treatment Measures

Overt Features

%SS (average of interview and reading)

Covert Features

Origin and Pawn Scales

LCB (Craig et al., 1984)

PSI – A, E & S (Woolf, 1967)

OASES (Yaruss & Quesal, 2008)

Training: a clause is categorized as Origin if it expresses . . .

Intention

"I intended to speak slowly."

Exertion or trying

"I tried to focus on breathing."

Ability

"I was able to maintain slow speech."

Overcoming influence from others or environment

"I have become more open about my stuttering."

Self-perception as a cause or Origin

"I own my voice and speech."

Training, a clause is categorized as Pawn if it expresses . . .

Lack of Intention

"I was surprised that I stuttered to her."

Lack of Exertion or trying (unintended outcomes)

"I happened to speak fluently."

Lack of Ability

"I was unable to say what I wanted to say."

Being influenced by others or environment

"Familiarity with friends made me fluent."

Self-perception as a Pawn

"I'm never completely sure when I'm going to get stuck."

Adjustment processes of raw scores
(length of response & skewness)

- Raw scores: # of Origin/Pawn clauses
- Possible to have no Origin or Pawn clauses
  (a positively skewed distribution)
- Value of 0.5 added to the raw scores
- Multiply by a correction (CF) for length of passage

CF = (1/total number of words) X 100

Adjusted scores = $\sqrt{(\text{Total raw score} + 0.5) \times CF}$

Origin and Pawn Analysis

Writing samples (M = 135 words)

"We would like you to think about a recent experience where you have spoken to one or more people. Please write about this experience for at least 10 minutes."

Reliability of assigning Origin & Pawn scores:

Cohen's kappa	Origin	Pawn
Inter-rater reliabilities	.76	.68
Scoring-rescoring with consensus of two raters	.92	.85

Treatment was effective !

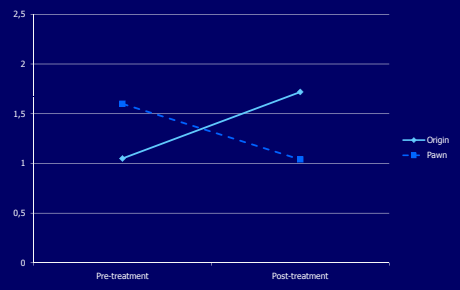
Significant improvement in pre-post measures; effect size

%SS	$p = .004$;	$d = 0.97$
PSI-A	$p = .001$;	$d = 1.39$
PSI-S	$p = .001$;	$d = 1.02$
OASES	$p = .001$;	$d = 1.71$
Origin	$p = .001$;	$d = 1.44$
Pawn	$p = .003$;	$d = 1.11$

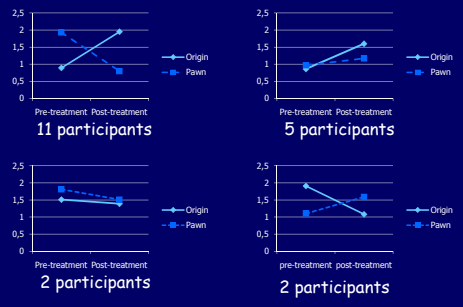
Non-significant improvement in pre-post measures

LCB	$p = .057$;	$d = 0.34$
PSI-E	$p = .050$;	$d = 0.49$

Group Changes in Origin and Pawn Scores (n = 20)



Individualized patterns for Origin and Pawn Scores



Concurrent & Construct Validity
(Origin & Pawn and OASES)

Origin scores and OASES scores have significant negative relationships

- That is, higher Origin scores correspond with less impact of stuttering

Pawn scores and OASES scores have significant positive relationship

- That is, higher Pawn correspond with more impact of stuttering

Concurrent & Construct Validity
(PSI and %SS)

A significant positive relationship between Pre-treatment Pawn scores and PSI-Avoidance (r = .52)

- That is, higher Pawn scores correspond to greater avoidance

A significant positive relationship between *decreases* in disfluency (%SS) and lower post-treatment Pawn scores (r = .45)

A significant positive relationship between pre-treatment disfluency (%SS) and *increases* in the Origin scores (r = .47) (Sig. increase in fluency post Tx)

Origin and Pawn & LCB Scale

Origin & Pawn Scaling may be more sensitive than the LCB

Using a threshold of 5% as an indicator of clinically meaningful change (Craig et al., 1984; Craig & Andrews, 1985):

- 18 of the 20 participants (90%) showed an increase in Origin or a decrease in Pawn scores
- However, pre-treatment LCB scores (28.68) were similar to normally fluent speakers (28.30) (Craig, et al., 1984)
- Still, 12 of the 20 participants (60%) showed (desirable) decreases of 5% in their LCB scores.

Origin and Pawn & LCB Scale

- Non significant relationships (r) among (Pre, Post, Change) Origin scores, Pawn scores and LCB Scale
- Support for Origin & Pawn as a two-dimensional *state* (rather than a single-dimensional trait) construct
  - Prior to therapy, a non significant relationship for Origin and Pawn scores (r = -.15, p = .531)
  - Following therapy, a significant negative relationship for Origin & Pawn scores (r = - .70, p = .001)

Other considerations

- Origin and Pawn scaling procedure likely to be less reactive and allow multiple testing
- A clinician who knows and understands a speaker may be better able to identify Origin and Pawn clauses (we did not administer the treatment)
- Adjustment of post-treatment pawn clauses for increased sensitivity (references to pre-Tx speaking)
- Future study: Patterns of change in Origin and Pawn scores to predict post-treatment success