

Biodanza Minotaurus

Anxiety Reduction in an Intercultural Pre-Post Comparison

Focus: Minotaurus Group (LV) — Trait Anxiety, Social Desirability & Anxiety Coping Types



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Background

- **Biodanza**
Movement-based, biocentric intervention (Toro, 1960s) — vitality, sexuality, creativity, affectivity, transcendence.
- **Minotaurus Method**
Specialized development: targeted exercises addressing four anxiety thresholds — love, life, the primitive, self-expression.
- **Research Gap**
To date, no published empirical studies on the effectiveness of the Minotaurus workshop.

Study Design & Sample

Quasi-experimental pre-post design, natural group assignment (no randomization)

LV — Latvia

Experimental Group (EG)

Bodanza Minotaurus workshop
n = 39 participants
Exercises along 4 anxiety thresholds,
individually selected by anxiety profile

CZ — Czech Republic

Control Group (CG)

Standard Bodanza workshop
n = 44 participants
No specific anxiety focus
(Prague)

Total N = 83 · 2 measurement points (pre/post) · $\alpha = .05$ · no demographic data collected · no randomization

Measurement Instruments

STAI

State-Trait Anxiety Inventory (Spielberger et al., 1970)

Dispositional anxiety readiness (trait anxiety) — how anxious someone generally is.

SDS-CM

Social Desirability Scale (Lück & Timaeus, 1997)

Tendency toward self-enhancement / anxiety denial. Example items: "I always say what I think." · "I am always willing to admit a mistake I make."

Minotaurus-Q

Minotaurus Anxiety Questionnaire (Toro, 2009/2010)

Four anxiety dimensions: Fear of Life, Fear of Love, Fear of Self-Expression, Primitive Fears.

SOC / BSQ

Sense of Coherence & Biocentric Health Questionnaire

Sense of coherence, plus ego subscales (loss of control, perfectionism, etc.).

STAI & SDS-CM

Two constructs whose intersection forms the anxiety coping types

STAI — Trait Anxiety

Measures the general, dispositional readiness to feel anxious — how anxious someone is by nature, regardless of the current situation.

Example items (paraphrased — original scale is copyrighted):

"I feel generally tense."

"I worry too much over things that don't really matter."

Response format: 4-point scale, "almost never" to "almost always"

SDS-CM — Social Desirability

Measures how much someone tends to present themselves more positively than they actually are — a denial / self-enhancement tendency.

Example items (short form, Lück & Timaeus, 1997):

"I always say what I think."

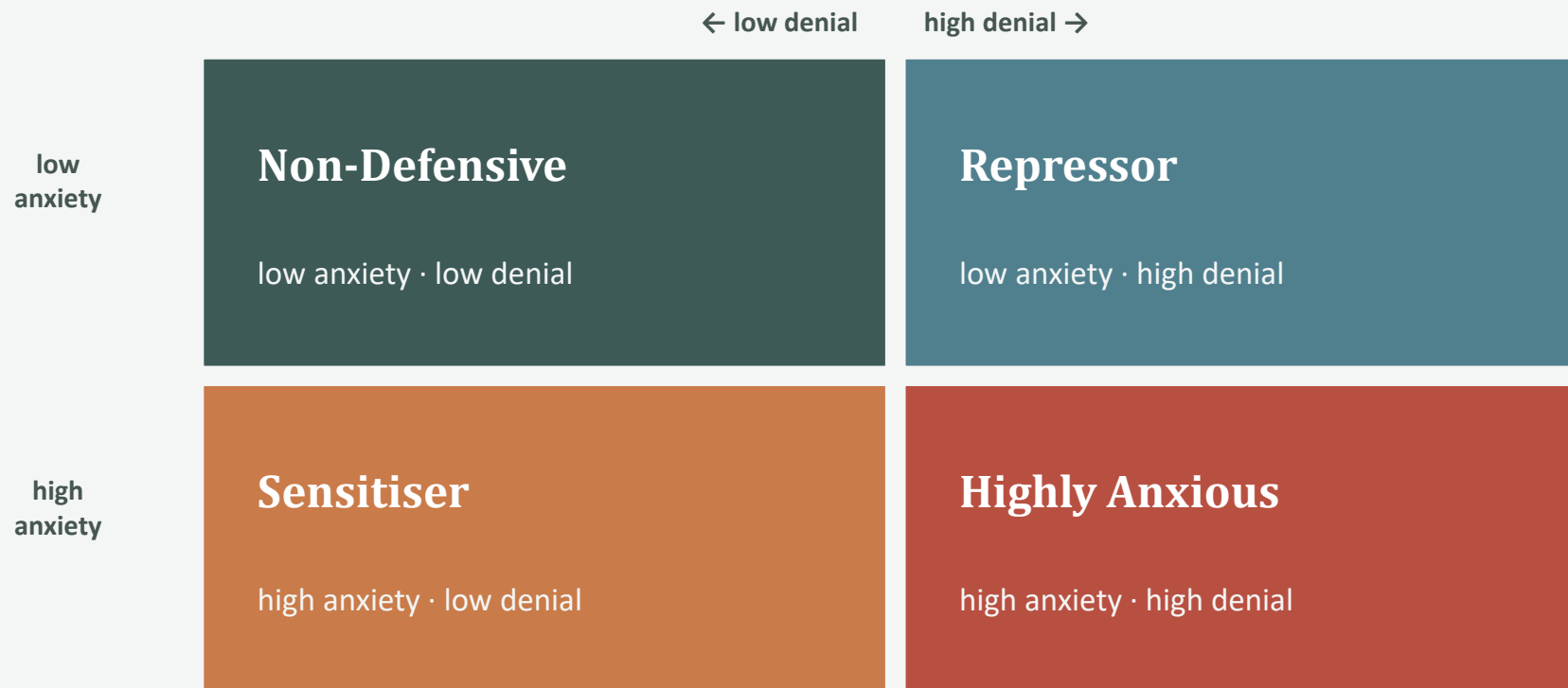
"I am always willing to admit a mistake I make."

Response format: "true" / "false" — agreement counts as socially desirable responding

Crossing both values (high/low) yields the four coping types after Byrne (1961) / Krohne (1989): Non-Defensive, Repressor, Sensitiser, Highly Anxious.

Anxiety Coping Types

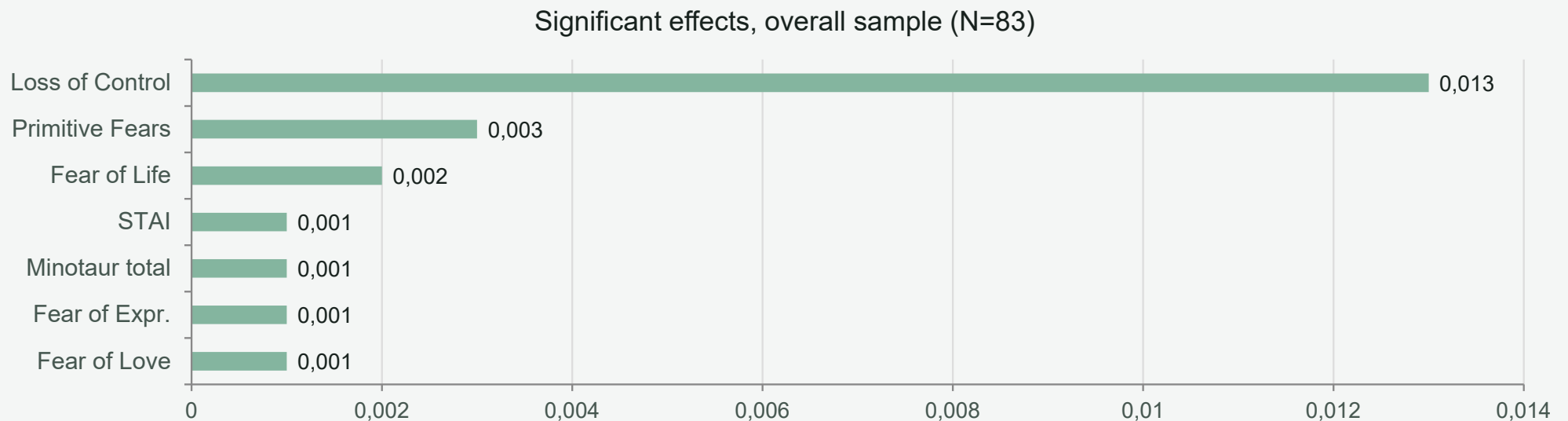
Byrne (1961) / Krohne (1989) — crossing STAI (anxiety) × SDS-CM (denial)



Results — Overall Sample

7 of 12 variables (58%) significantly changed ($p < .05$) across both groups

Only 3 of 12 variables significantly changed (25%, Minotaurus) in the LV group — clearly fewer than in the CZ group (58%, Biodanza)



Only significant group difference in magnitude of change: social desirability ($p = .048$)

Results — Minotaurus Group (LV)

Only 3 of 12 variables significantly changed (25%) — clearly fewer than in CZ (58%)

p = .001

STAI (Trait Anxiety)
significantly reduced

p = .009

Fear of Love
significantly reduced

n.s.

Social Desirability
(SDS-CM) — stable

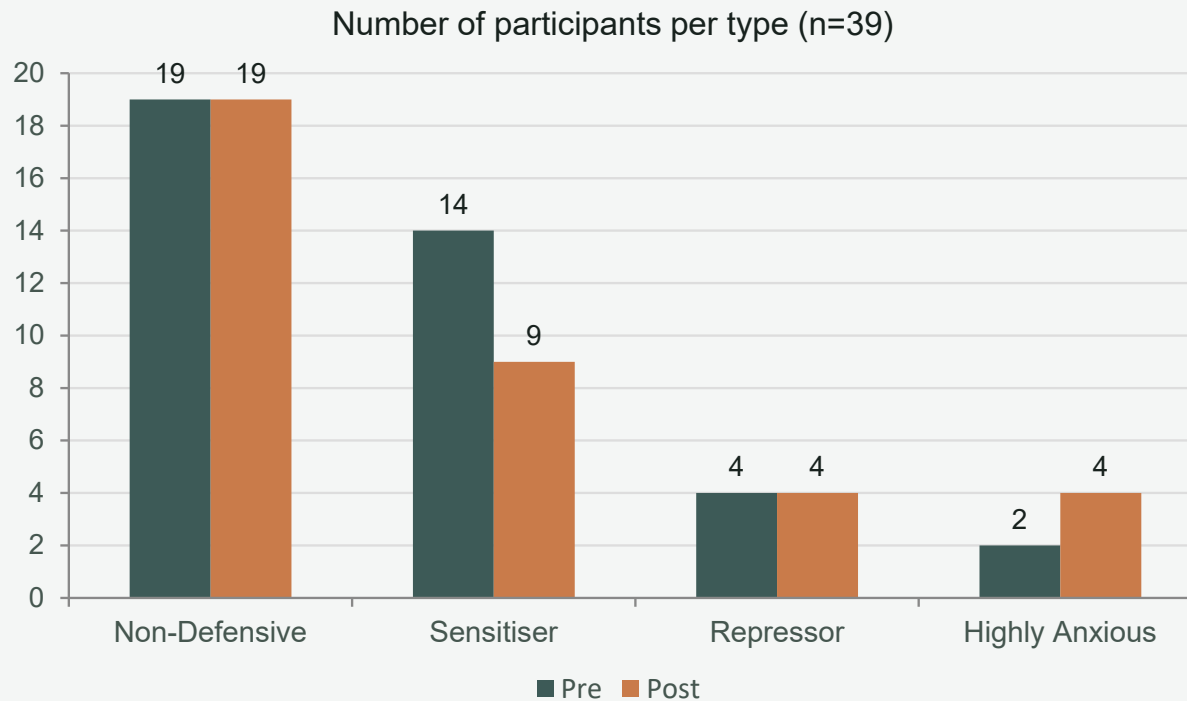
Physiology (LV only)

Saturday: blood pressure sig. decreased (systolic p=.010, diastolic p=.043)

Sunday: no significant change anymore — adaptation or exhaustion?

Not significant: Fear of Life, Fear of Self-Expression, Primitive Fears, Sense of Coherence, Loss of Control, Perfectionism, Fear of Others, Self-Serving Thinking

Coping Types Over Time — LV Group



Sensitiser: 14 → 9

–5 participants (decrease)

Marginal distribution only — no individual-level trajectory shown

Highly Anxious: 2 → 4

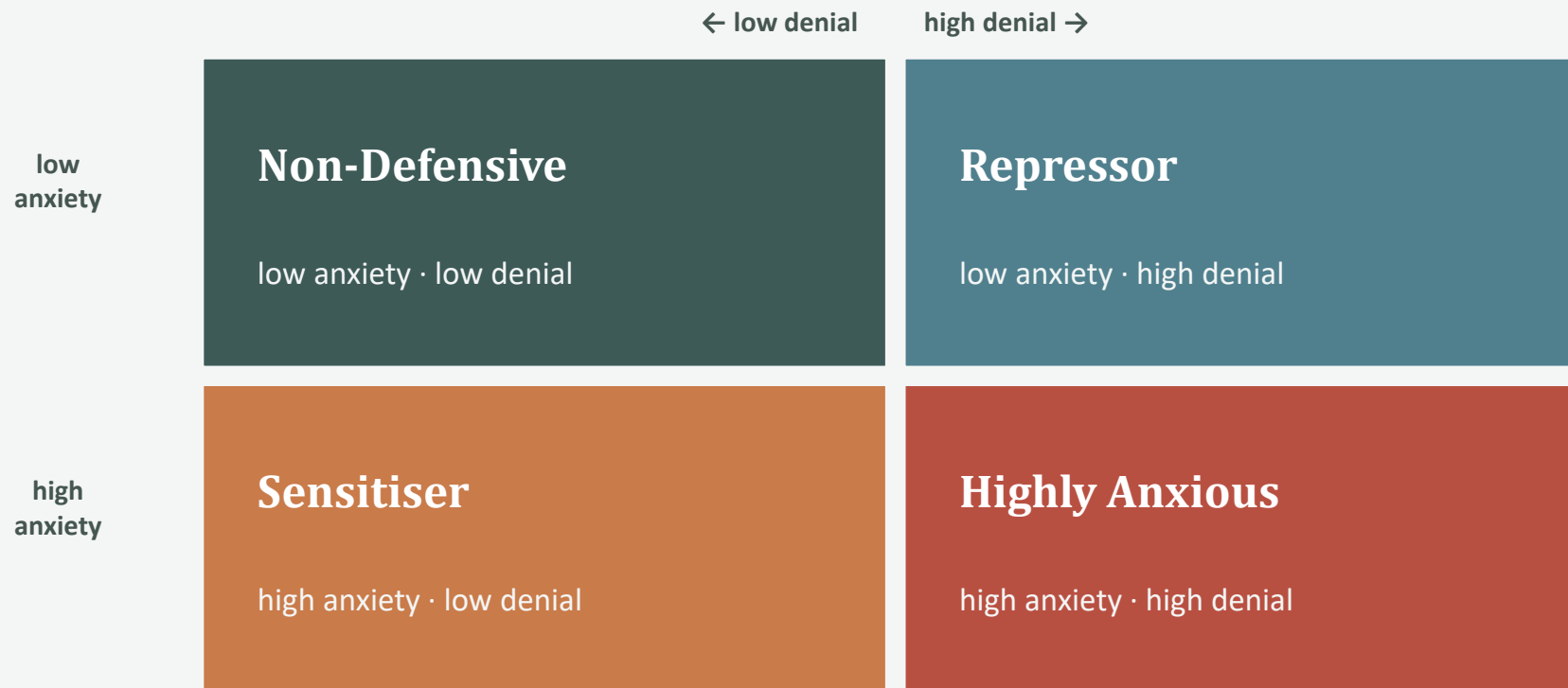
+2 participants (+50%)

Marginal distribution only — no individual-level trajectory shown

Before: LV vs. CZ significantly different distribution ($\chi^2=10.80$, $p=.029$) → After: no difference remains ($\chi^2=2.03$, $p=.730$)

Anxiety Coping Types

Byrne (1961) / Krohne (1989) — crossing STAI (anxiety) × SDS-CM (denial)



Interpretation: Activation Hypothesis

Latent anxiety is activated by confrontational exercises — a possible first step in processing, not the end result.

- 1 Before: anxiety experienced openly (Sensitiser) or unconsciously
- 2 Workshop: confrontational exercises bring deeper anxiety to the surface
- 3 Right after: temporarily more defensiveness (shift toward Highly Anxious)
- 4 Interpretation: a transitional state on the way to genuine processing

Supporting findings in LV:

STAI drops significantly ($p=.001$); social desirability stays stable (no additional denial) — pointing to genuine reduction rather than a mere shift.

⚠️ Caveat: only marginal distributions are known — it is not established that the same individuals shifted. Equally valid alternative: overload/overstimulation rather than activation.

Conclusion

- Biodanza measurably reduces anxiety — in both formats
- Coping-type shift in LV: plausible as activation, but equally explainable as overload
- First study on the Minotaurus format — exploratory, hypothesis-generating
- Next steps: RCT design, follow-up, individual-level trajectory data, capturing subjective burden
- The specific added value of the Minotaurus approach requires further investigation, particularly individual trajectories

Results — Standard Biodanza Group (CZ)

7 of 12 variables significantly changed (58%) — clearly more than in LV (25%)

p = .001

Fear of Life
significantly reduced

p = .001

Fear of Self-
Expression reduced

p = .001

Minotaur total score
significantly reduced

Further significant reductions:

Fear of Love (p=.013) · Primitive Fears (p=.008) · Loss of Control (p=.010) · STAI total score (p=.043)

Coping types (Wilcoxon/Chi²):

Repressor: 9 → 3 (marked decrease) **Sensitiser:** 4 → 7 (increase) **Highly Anxious:** 6 → 5 (stable)

Not significant: Sense of Coherence, Perfectionism, Fear of Others, Self-Serving Thinking, Social Desirability (SDS-CM)

Interpretation: less repression, more emotional openness — a broader, more consistent effect than in the Minotaurus group

Limitations

- No true control group / randomization → no causal conclusions
- Medium sample size (n=39 / n=44) → limited statistical power
- No demographic data (age, gender)
- Multiple testing without correction (no Bonferroni) → α -error risk
- Physiological data one-sided only (LV only) → no group comparison possible
- No follow-up → sustainability of effects unknown
- Chi² test with cell counts < 5 in 40–50% of cells → results should be interpreted cautiously
- Cutoff derivation for 'high/low' on STAI & SDS-CM not documented