# From Experience to Evidence — The Scientific Exploration of Biodanza

Based on Scientific Monographs in Biodanzaschools.



Prof. Dr. habil. Marcus Stueck

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

Download the lecture and three publications related to the lecture at www.bionet-research.com



"Investigar Biodanza es como explorar un tesoro en lo profundo del océano o contemplar un universo infinito lleno de milagros increíbles y hermosos."

Marcus Stueck

### **Introducing myself**

30 years experience in research, Professor of Psychology

2 PhDs at Leipzig University (Yoga and Biodanza with teachers, research award for the PhDs 1997, 2005)



member of the IBFed Methodological Subcommission "Biodanza and Investigation" together with Emilse Pola, Juan Galivan, Myriam Sofia

Director of the International Biocentric Academy (IBRA) and Supervisor of several PhDs,





Head of the first Biodanza experimental and control group study worldwide 1997-1998 in B.Aires together with Rolando Toro and other colleagues.

### The role of empirical research in Biodanza?

Part 1
Rolando Toro and the empirical sciences



**Prof. Marcus Stueck** 

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck 1998: First scientific experimental and control group study of Biodanza in Buenos Aires (Psychology and Psychology)



#### What was Rolando Toro like as a scientist?

Historical research: Original statements by Rolando Toros, text analyses

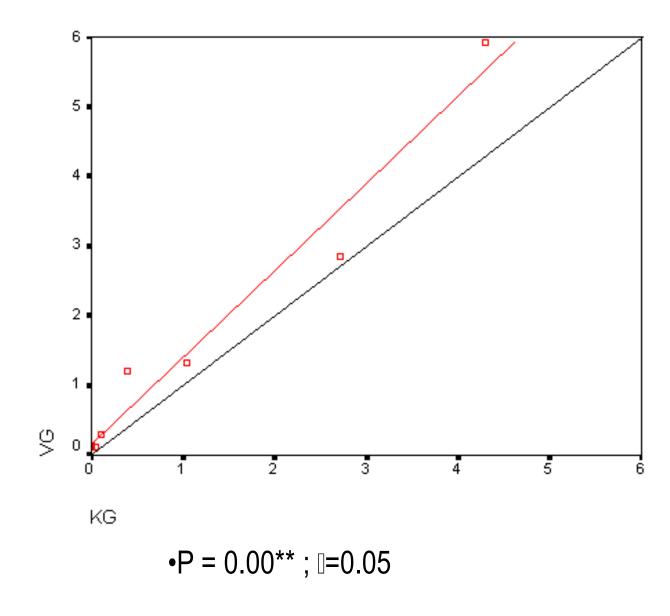
Person 1 (Marcus Stueck):

"For me, the most important result of the research in Buenos Aires in 1998 was the increase in optimism... Young man, look beyond the classifications" (Milan, 2002)

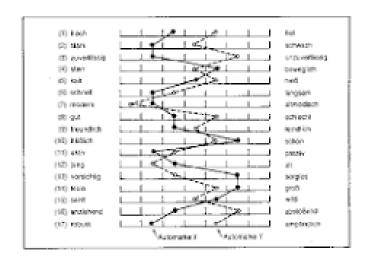
Person 1 (Marcus Stueck, Brazil, 1999):

"During one of the lectures in Brazil about the first joint project, he asked me which dimensions we would use with regard to Hofstätter's semantic differential. I was very surprised by his detailed scientific and methodological knowledge of psychological research."

### Semantic differential...Positive Change in the Concept of Life (Pre-Post 1)



compliant, 27; tender, 21; playful, 21; dreamy, 20.



Valence (evaluation): good – bad

Potency: strong – weak

Activity: active – passive

### Publication about the studies in review journals

**DE GRUYTER OPEN** 

Signum Temporis 2016; 8(1): 57-66



Research Article Open Access

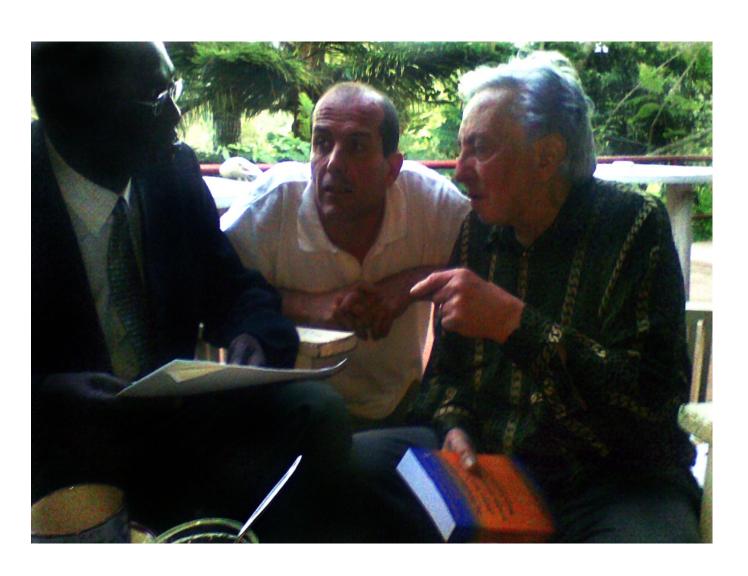
Marcus Stueck, Paul.S.Tofts

# Biodanza Effects on Stress Reduction and Well-Being – A Review of Study Quality and Outcome

DOI 10.1515/sigtem-2016-0018

Download: www.bionet-research.com

## Rolando in Tanzania with the dean of a university, explaining what Biodanza is with this first publication about empiric science.





Stück, M., & Villegas, A. (Eds.). (2008). ¿Danzar hacia la salud? Investigaciones empíricas de Biodanza. Strasburg: Schibri.

Comment: This book contains all studies up to 2008.

The incredible thing is that no one reads or uses the publication.

What were Rolando Toro's research interests?

Marcus Stueck (Person 1): Question for Rolando Toro in 2009 in Tanzania/Africa

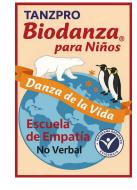
What are your empirical research interests, Rolando?

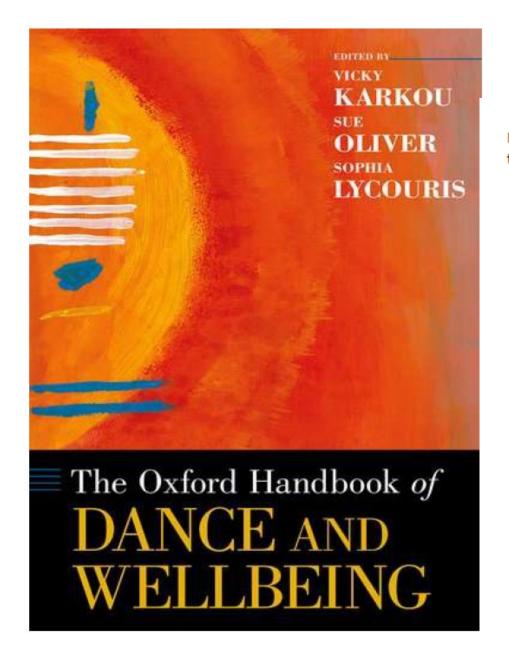
#### His answer:

- Biodanza with children (biocentric education)
- Affectivity and blood pressure = connection between love and biology
- Biophotons and Biodanza
- Epigenetic research on Biodanza
- Endocrine system, immune system



#### Rolandos research wish 1: Biodanza with children





Because of copyright reason we can only give an short view on the article. Please look in the list of the articles on BIONET page to download full articles about the research.

#### CHAPTER 4

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# EVIDENCE-BASED BIODANZA PROGRAMMES FOR CHILDREN (TANZPROBIODANZA) IN SCHOOLS AND KINDERGARTENS

Some Effects on Psychology, Physiology, Hormones, and the Immune System

.....

MARCUS STUECK AND ALEJANDRA VILLEGAS

### Rolandos research wish 2: Connection between love and biology

### Stressrelated Hypersensitivity decreases the capacity for empathy

Psychological assessment scale +	M	SD	M	SD	р	Effect size
measurement of the Stress- Hxpersensitivity	Hypersensitiv		not hyper-sensitive			
Capacity for love (empathy) (T-value)	42.18	7.33	47.97	7.85	.01	.76



Stück, M., Schoppe, S., Lahn, F. & Toro,R. (2013). Was nützt es sich in jemanden hineinzuversetzen, ohne zu handeln? *In ErgoMed / Praktische Arbeitsmedizin, 6/2013 (37) 38-46*.

### Because of Biodanza decrease of stressrelated Hypersensitivity

Raykova, A. (2012). Stressreduction with Biodanza in teachers. Pädagogische Hochschule. Masterarbeit

# Because of Biodanza increase of empathy (verstärkter Blickkontakt to Schülern, bessere Beziehung)

Stück, (2007). Stressreduction and Yoga in teachers. Strasburg Schibri

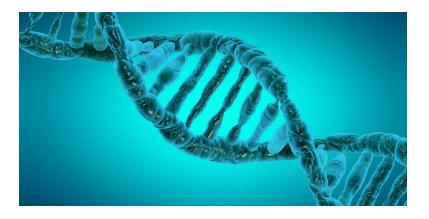


Hypothesis = Biodanza, encounter and movement could promote "light emission" or "coherent cell communication".

#### **Derivation:**

- This is not scientifically proven it currently falls more into the realm of hypothesis/metaphor than experimental evidence.
- There is a risk of pseudoscientific misinterpretation
   = something seems scientifically but it is not

### Rolandos research wish 4: Epigenetics



# There are a lot of Hypothesis about epigenetic, but there is no research on epigenetics in relation to Biodanza

Examples of literature-based reports on **Biodanza and epigenetics** that are presented as effects of Biodanza = most is **pseudoscience**, **except the last one**:

- Admin Biocentric Steps: *Epigenetics in relation to Biodanza* (PDF, theoretical elaboration)
- Varela, L. (2021): Epigenética y Neurociencias en relación con Biodanza (monograph, Asociación Biodanza Ya,
   Argentina) biodanzaya.org
- AIPOB (Italian Biodanza Organisation): Article *Epigenetics and Biodanza* (blog/essay, not peer-reviewed) <u>aipobbiodanza</u>.org
- Biodanza.org: Article *Neurogenesis and neuronal plasticity* refers to neurobiological and **hypothetical** epigenetic mechanisms in the context of Biodanza <u>biodanza.org</u>

### Rolandos research wish 4: Epigenetics

There are a lot of Hypothesis about epigenetic, but there is no research on epigenetics in relation to Biodanza. In other disciplines YES.

Example: Own study Gene expression in high altitute (publication in preparation)





### Rolandos research wish 4: Epigenetics

#### **Derivation:**

The work on epigenetics in Biodanza uses scientific terms (e.g. DNA) methylation, neuronal plasticity) without presenting any experimental data of its own. It is based on literature. This creates the impression of a biological scientific basis that has not yet been supported by studies.

We can not built a method on this literaturebased knowlegde. It is pseudoscientific

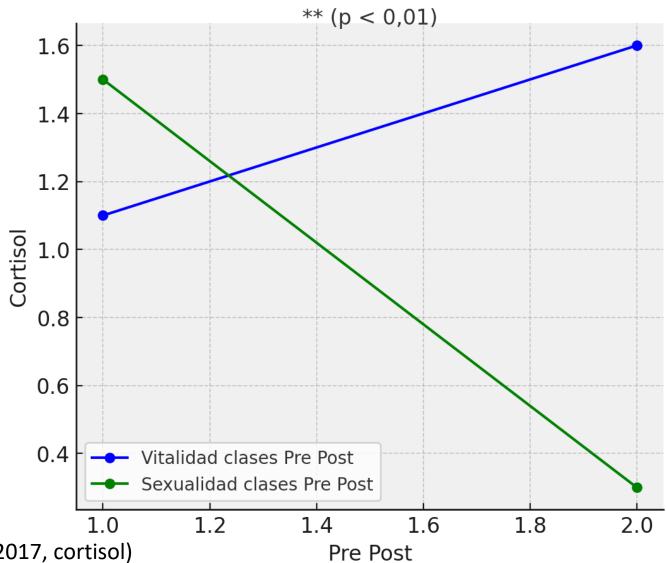
You can use the literature based argumentation but at least you have to reflect critically that ist not studied on Biodanza.

Comment: This is an ethical question. Science itself is ethical — it protects the method from pseudoscientific practices. Science safeguards truth. In these confusing times, empirical science may be the last bastion of truth, as it is grounded in the search for reality through data — even when this leads to unexpected results.

### Rolandos research wish 5: investigation of hormones/neurotransmitter

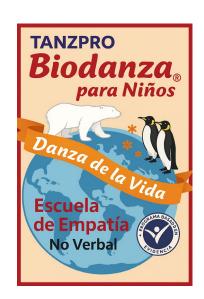
### **Cortisol**

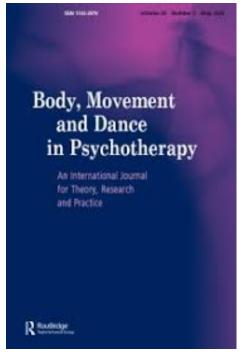
Comment: When you conduct a study, the results are often surprising. In the teaching materials, the findings are usually very general — for example, "Biodanza reduces cortisol." However, research opens our consciousness to differentiation and deeper understanding.



(Aughostini, Stueck, Bauer, Sack, 2017, cortisol)

### Rolandos research wish 5: investigation of hormones/neurotransmitter





### **Cortisol**

BODY, MOVEMENT AND DANCE IN PSYCHOTHERAPY, 2016 VOL. 11, NO. 1, 75–89 http://dx.doi.org/10.1080/17432979.2015.1124923



### Biodanza for kindergarten children (TANZPRO-Biodanza): reporting on changes of cortisol levels and emotion recognition

Marcus Stueck<sup>a</sup>, Alejandra Villegas<sup>b</sup>, Franziska Lahn<sup>c</sup>, Katrin Bauer<sup>d</sup>, Paul Tofts<sup>e</sup> and Ulrich Sack<sup>f</sup>

<sup>a</sup>Psychology, Saxony University of Applied Sciences Leipzig (DPFA), Zwickau, Germany; <sup>b</sup>Scientist, Saxony University of Applied Sciences Leipzig (DPFA), Leipzig, Germany; <sup>c</sup>Department of Psychology, University of Leipzig, Leipzig, Germany; <sup>d</sup>Institute for Clinical Immunology, University of Leipzig, Leipzig, Germany; <sup>e</sup>Brighton and Sussex Medical School, University of Sussex, Brighton, UK; <sup>f</sup>Translational Centre for Regenerative Medicine, University of Leipzig, Leipzig, Germany







Psycho-Neuro-Immunological effects of Biodanza with children,

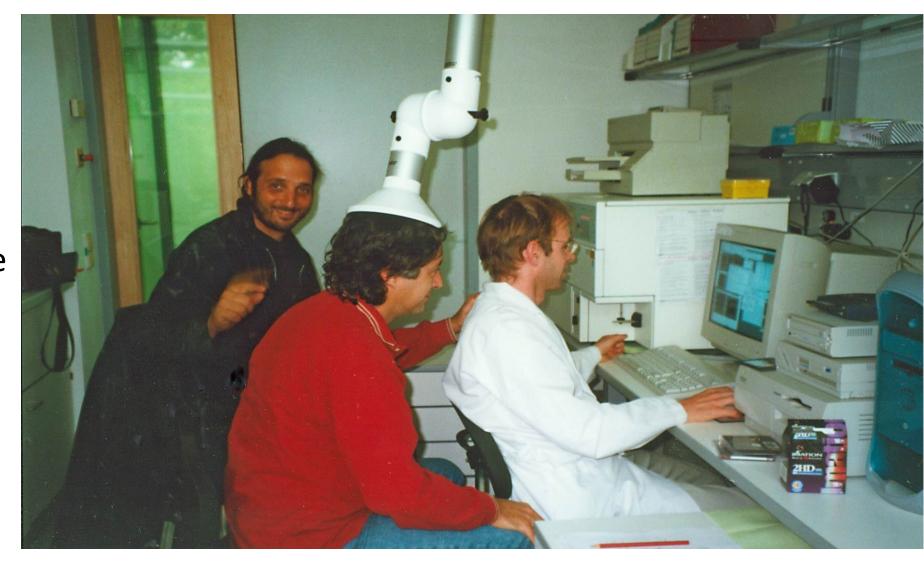
**Studies at Leipzig University** 

# Analysis of saliva and blood samples:

Institute for Clinical Immunology and Transfusion Medicine of the University of Leipzig

1999:

Marcus Stueck; Raul Terren; Thure Adler



Rolandos research wish 5: Investigations of Hormons/neurotransmitter

Zum Selbstlesen

**Oxytocin** 

**Evidence-Based Programme with Psychiatric Patients**Marcus Stueck, Anete Raykova, Diana Sturmane

First EG/CG-study on oxytocin, 2010 in Latvia, no effect.

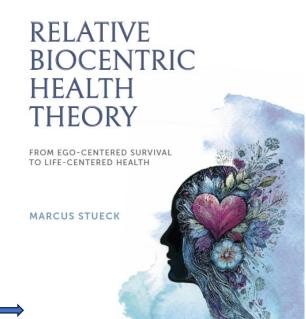
The general claim that *Biodanza increases oxytocin release* has not yet been empirically confirmed. In empirical science, results often differ from expectations.

Patients showed significantly lower oxytocin levels compared to a control group. No significant increase in oxytocin was observed after Biodanza.

Published in rbHT



BIOCENTRIC HEALTH IN HUMAN DEVELOPMENT, BAND 1



### Rolandos research wish 5: Investigations of Hormons/neurotransmitter

**Testosteron** 

Zum Selbstlesen



centres

Ministry of Health as a prerequisite for

implementation in German daycare

access to funds for practical

PROBLEMAS
DE LA EDUCACIÓN
EN EL SIGLO XXI
Volumen 56, 2013

EFECTOS DE UN PROGRAMA DE DANZA BASADO EN EVIDENCIA (TANZPRO-BIODANZA) PARA NIÑOS DE JARDÍN DE INFANCIA DE CUATRO A SEIS AÑOS SOBRE LA INMUNOGLOBULINA A, LA TESTOSTERONA Y LA FRECUENCIA CARDÍÁCA

Study for the evidence-based programme with children for the

Universidad Aplicada de Sajonia (DP-Zwickau), Alemania

Cathleen Schoenichen, Katrin Bauer
Universidad de Leipzig, Alemania

**Paul Tofts**Universidad de Sussex, Reino Unido

Ulrich Sack

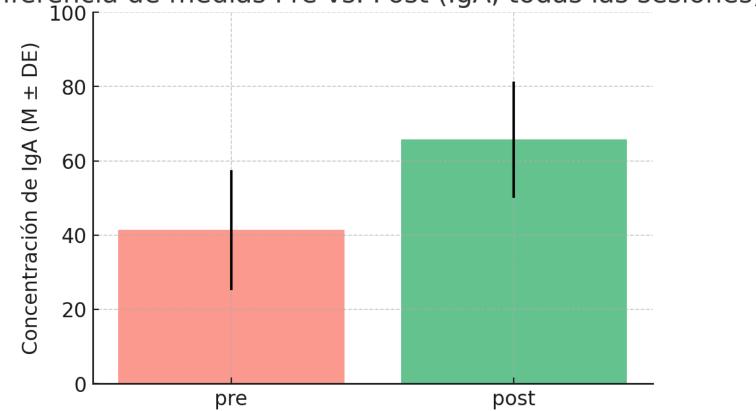
Marcus Stueck, Alejandra Vilegas

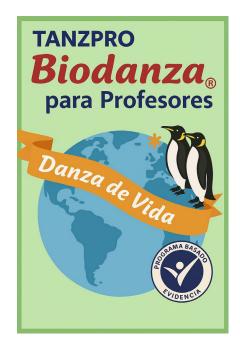
Instituto de Inmunología, Universidad de Leipzig, Alemania

### Rolandos research wish 5: investigation of the Immune-system & Biodanza

### **Immunglobuline A**

Diferencia de medias Pre vs. Post (IgA, todas las sesiones)





# Publication on the determination of the effects and mechanisms of action of Biodanza on IgA

MARCUS STÜCK, ALEJANDRA VILLEGAS, KATRIN BAUER, RAUL TERREN, VERONICA TORO, ULRICH SACK

University of Leipzig, Germany

#### PSYCHO-IMMUNOLOGICAL PROCESS EVALUATION OF BIODANZA

#### **SUMMARY**

Introduction. Biodanza is an intervention intended to promote health by encouraging self-expression and autoregulation through music, dance and interaction as developed by R. Toro. Aim of the Study. To examine the effects of Biodanza on the secretion of IgA and the feeling of relaxation before and after the Biodanza sessions in a group of schoolteachers.

Buchbestellung: info@bionet-research.com

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 3: Biodanza y psiconeuroendocrinologia

**Marcus Stueck** 



Polar Bear & Penguin Edition

### The role of empirical research in Biodanza?

### Part 2

### Rolando Toro and the conventional science



Prof. Dr. habil. Marcus Stueck



### What Rolando Toro says about conventional Science?



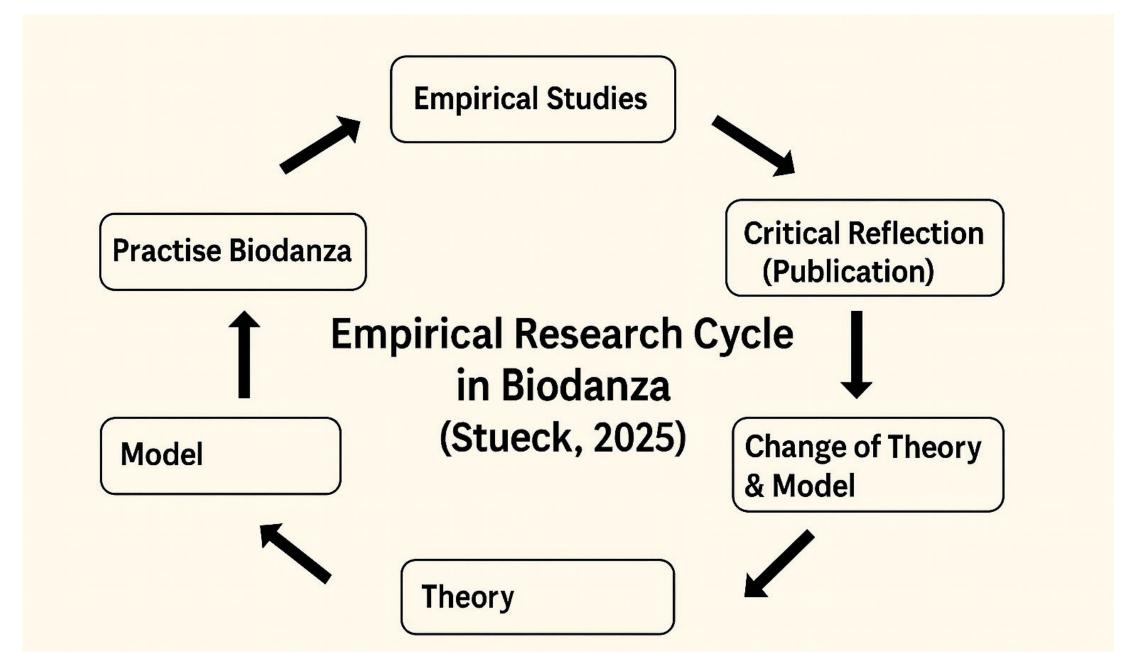
#### RT:

"Biodanza has no magical connotations. It is based on conventional science, on biology, neurology, advanced psychology, anthropology, sociology, ecology and political science. But there is no magic in it, because things that we cannot explain in accordance with science are not taken into account." (Toro Araneda, 1991, p. 53).

Toro Araneda, R. (1991). Teoria da Biodança: Coletânea de textos. Editora ALAB.

What is convential science? = it looks for evidence (Proof)

### What is conventional science (Stueck, 2025)



# "Wir lernen über Wissenschaft wenn wir sie tun" (Juan Gavilan)

Difference between

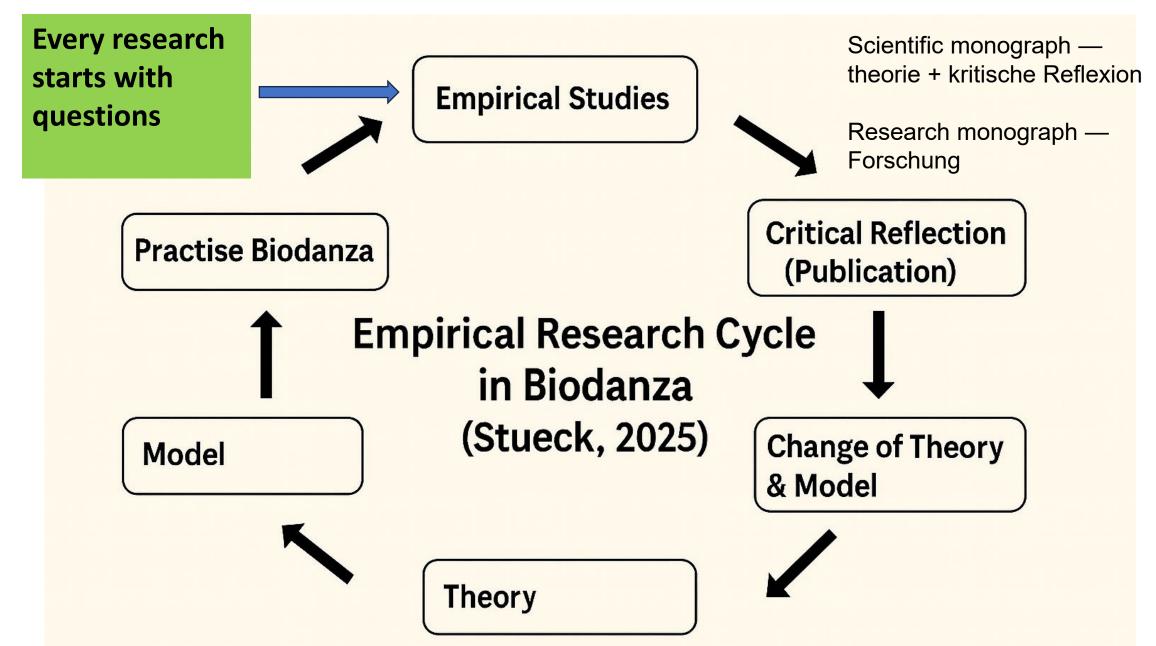
**Thesis** — Abschlussarbeit (theoretisch, meist bibliographisch)

Scientific monograph — Wissenschaftliche Monographie (theorie + kritische Reflexion) - Biodanza

Research monograph — Forschungsmonographie (empirisch, eigene Daten) - Biodanza

Wichtigstes Ziel kritisches Denken, kritisches Beantworten von Forschungsfragen

### What is conventional science (Stueck, 2025)



### Each research (Monography) starts with a research question

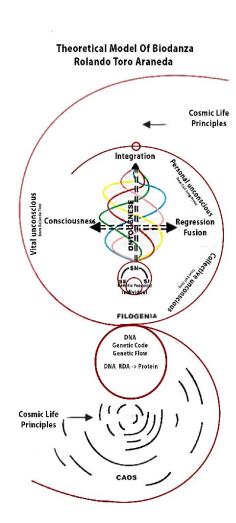
### **Examples:**

Is the theoretical model of Biodanza a scientific Model?

Which definition of Biodanza is a scientific Definition?

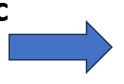
Is there a scientific model for the biocentric principles?

What can Biodanza not achieve? (Contraindications)



# Are the biocentric principles sufficiently described scientifically?

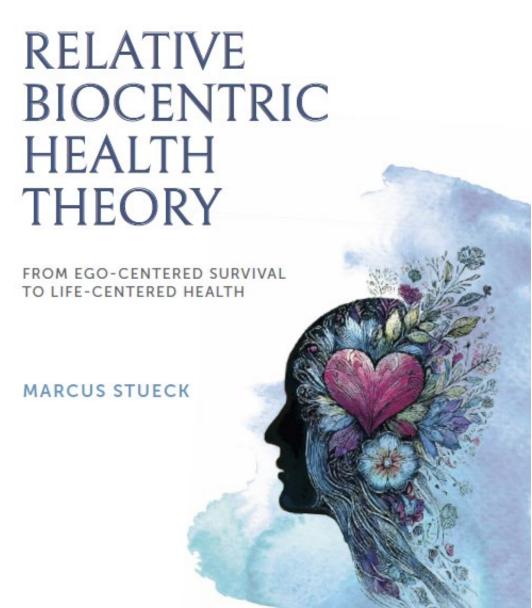
First Scientific model of the biocentric paradigm, including the biocentric principle and biocentric education



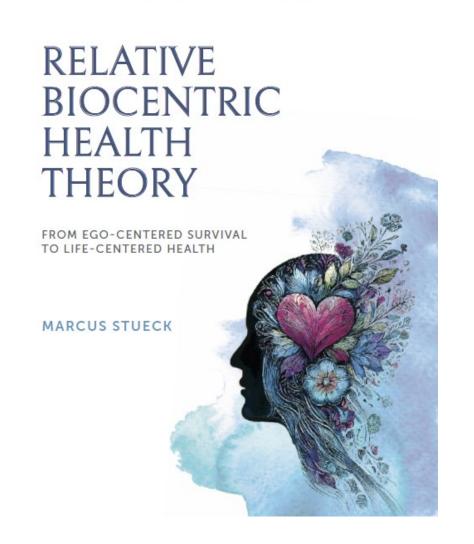
Development period 2020–2025

From November 2025 in English, 2026 in Spanish

Information and ordering: marcus.stueck@bionet-research.com



BIOCENTRIC HEALTH IN HUMAN DEVELOPMENT, BAND 1



Five articles in peer-reviewed journals (in preparation)

- Relative biocentric health theory Introduction
- Introduction to applied quantum psychology
- Unfolding of Life and holographic aspects
- The scientific meaning of heart intelligence
- How science deals with the invisible: *Der Spirituelle* und kosmische Big Bang die Handhabung der unsichtbaren und der sichtbaren Ebenen in den Lebens-Wissenschaften

### **Scientific Forerunner of the Relative Biocentric Health Theory**

HEALTH PSYCHOLOGY REPORT · VOLUME 9(2), 2021 ORIGINAL ARTICLE Marcus Stueck 🗅

# The Pandemic Management Theory. COVID-19 and biocentric development

First attempt to describe the biocentric principle of Rolando scientifically

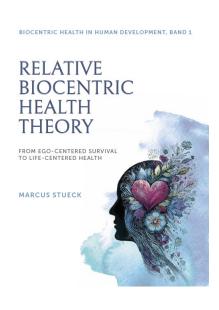
Development period 2020 – 2021

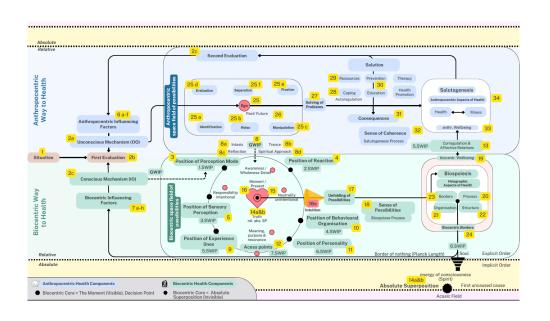
5000 Downloads in research gate:

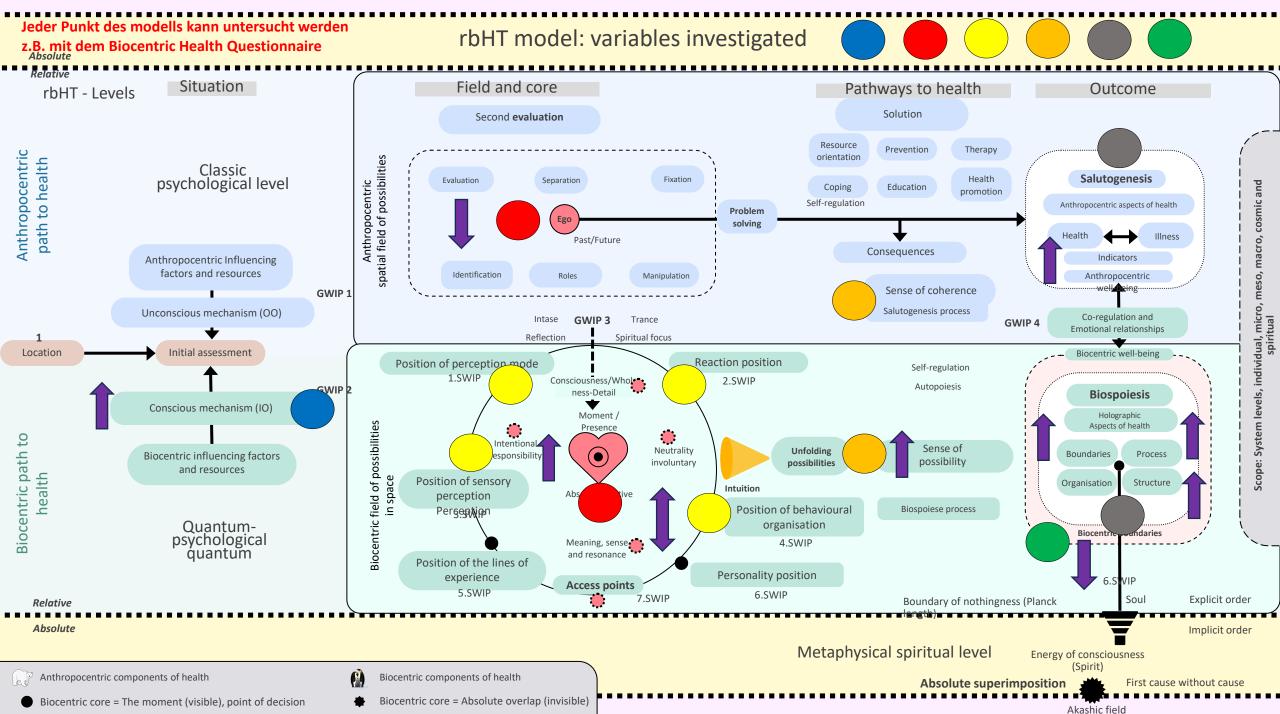
www.bionet-research.com

### Scientific model: Every position in this model is empirically verifiable.

It is standard scientific practice to separate theory and model. Until now, the biocentric principle had no scientific model. In empirical research, every part of the model must be empirically and scientifically verifiable.







### Biocentric indicators for "Life in the Centre"

### - holographic aspects of life and physiological measurement.

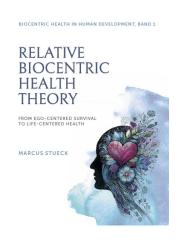
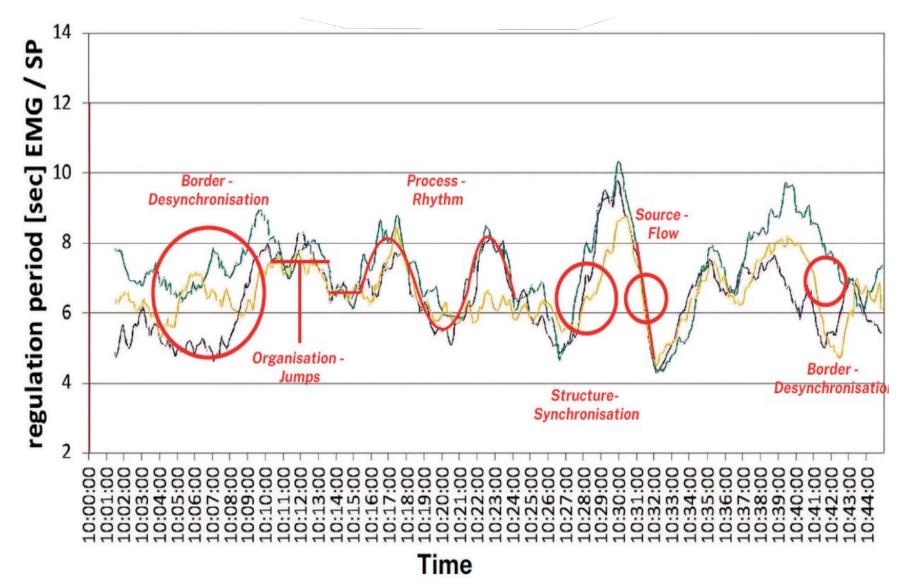


Figure: Device for measuring the time series with the holographic features.



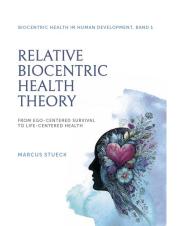


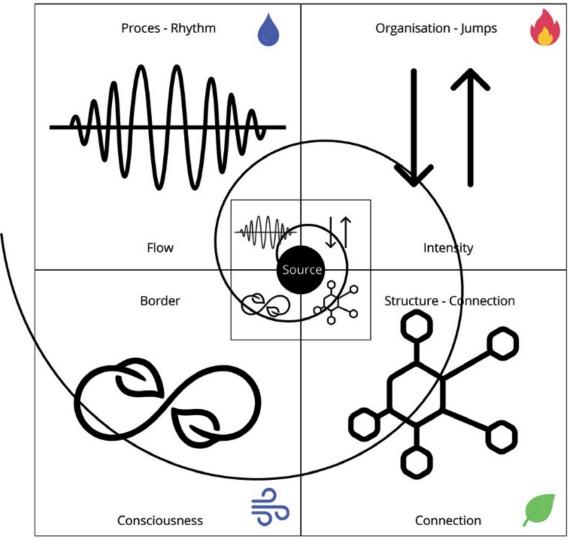


#### Biocentric indicators for "Life in the Centre"

holographic aspects of life and physiological measurement.

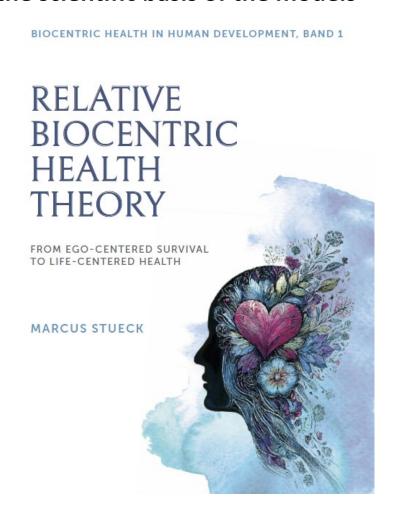
These indicators (holographic aspects) can be examined on all systemic levels: individual (human), micro (family), meso (organizations), macro (states), as well as cosmic, biocosmic, biological (chronobiological), societal, rational/irrational levels, etc. (Stueck, 2025)





# Ways for Biodanza teachers, didactas, and directors to gain knowledge about the empirical basis of the theoretical model and the biocentric principle:

2 books on the scientific basis of the models



## Explorando lo Desconocido

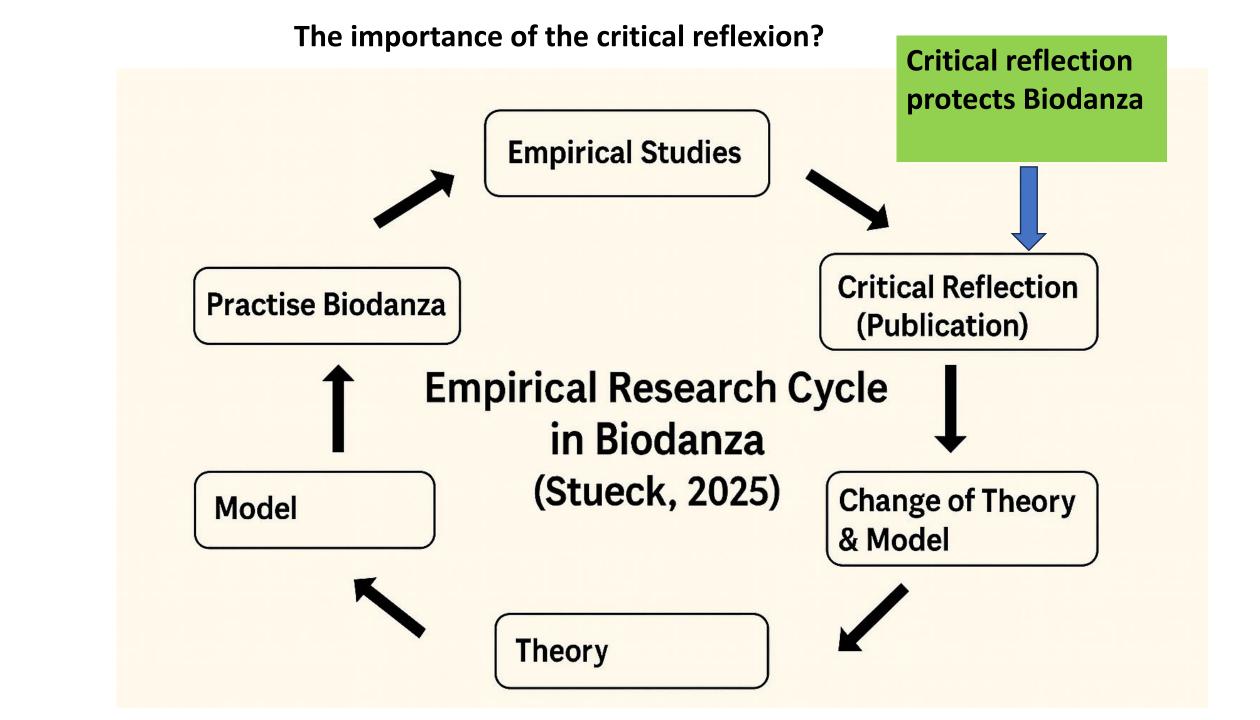
La investigación empírica detrás de Biodanza

PARTE 11:
Investigaciones
científicas sobre
el Modelo Teórico
de Biodanza
una reflexión crítica

**Marcus Stueck** 

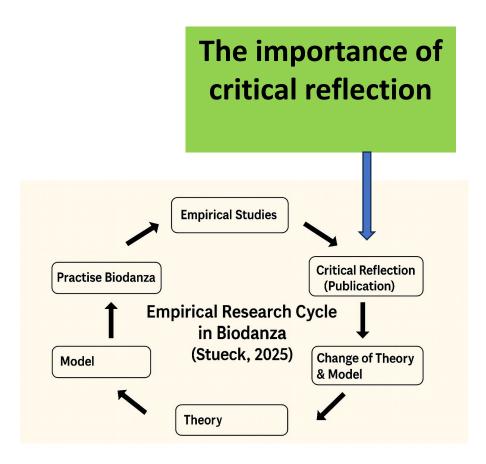


Order the books under info@bionet-research.com



#### The Value of Critical Reflection for Biodanza

- Critical reflection is an essential part of any scientifically grounded method — it is its immune system.
- Through critical reflection, a method is protected because it helps define its indications and contraindications — what belongs inside and what does not.
- It safeguards the essence of the method.
   Critical reflection is not something personal, it is objective and based on empirical data.



#### **Derivation:**

Rolando Toro conducted empirical research into Biodanza. He was an empirical researcher throughout his life. This was the only way he could develop and protect the Biodanza method. This meant deciding what could be integrated and what could not (indications and contraindications).

## Example of critical reflection at a high academic level

2007 professorial dissertation (second PhD) at Leipzig University with 100 tested hypotheses

9 years in the making 1998–2007, Science Award in Germany 2006

Evidence-based Biodanza programme for teachers

Critical reflection on the evidence base of the theory of Biodanza (e.g. instinct model) LIBRO 2

NUEVOS CAMINOIS EN PSICOLOGÍA Y PEDAGOGÍA

Marcus Stück (Hg.)

## Nuevos Caminos: Yoga y Biodanza en la reducción del estrés para educadores

Neue ways: Yoga und Biodanza zur la reducción de estrés para educadores

Nuovi percosi: Yoga e Biodanza nella riduzione dello stress per insegnanti

Otros caminors: Yoga e Biodanza en la ridución del estrés para educadores





### Rolando Toro on critical reflection on his instinct theory

Historical research: Original statements by Rolando Toros, text analyses

Person 1 (Marcus Stueck): "Rolando, the habilitation committee at the University of Leipzig is requesting a critical reflection on your theory of instinct. They believe that what you postulate about the intelligence of instincts has no evidence from studies" (2010, Arusha, Tanzania)

Rolando was very upset, but then had to admit that this was true, as he was unable to present any published studies on the subject. The model of instincts is based on assumptions that refer to secondary sources and must be tested in relation to Biodanza.

- Throughout his life, Rolando Toro saw himself as an empirical researcher.
   On this basis, he developed and protected the Biodanza method.
- His own studies served as a benchmark for selecting the elements of the system. Unfortunately they are not published in scientific journals.
- His research wishes reveal which aspects were particularly important to him. I was surprised, that he didnt mention Neuroscience.
- Durch unsere Researchwork he understood the value of the critical reflexion b ased on data, unfortunately he died.

We have been working on Rolando's wishes for almost 30 years!

#### Last time I saw Rolando Toro in Tanzania, 2009

We were travelling through Tanzania in a jeep — a group of six: Rolando, Claire, Judith Mushi, Norbert Schluderbacher, my daughter, and me. He was not well known in Tanzania, and he clearly enjoyed that.

What really worked there was his Biodanza music — simple sessions with the original compositions. In the first session, we tried incorporating African music, but it didn't work. So he gave a very classic class for 100 people with AIDS in a clinic. He was inspired and taught the class alone.

At each stop, I gave a lecture on scientific findings — even at the Ministry for Women and Gender Politics. He demonstrated the value of hugs with Claire, and I explained the physiological effects of hugging based on my own studies.

I believe that's where he truly saw the power of combining empirical science and Biodanza within institutions. When we were at the airport, he turned to me and said, "My boy, we still have many projects ahead of us."

That was the last time I saw him. I miss him.



Moldi, Facilitatore di Biodanza

ringraziamento speciale a Donatella Bazzotti per la mediazione linguistica

iovedì 16 Aprile ore 15. Mi collego con Zoom per intervistare il prof. Marcus Stuek (Università di Lipsia - cattedra di Psicologia), che da anni sta svolgendo ricerche a livello universitario sulle evidenze scientifiche del Sistema Biodanza e che, di recente, ha messo in campo in collaborazione con diverse università del mondo, un test per valutare l'insieme delle reazioni emozionali e comportamentali in questo particolare momento di pandemia.

#### Chiedo a Marcus di parlare brevemente del suo percorso di studi.

Ho studiato Psicologia a Lipsia e Londra e ho conseguito il mio primo PHD occupandomi dello yoga per bambini rispetto alla riduzione dello stress e dell'ansia. Parallelamente stavo facendo



Rolando Toro e Marcus Stuek in Tanzania, Università di Bergamoyo (2009)

delle ricerche in Argentina e qui ho incontrato Biodanza (1995)

#### Hai conosciuto di persona Rolando Toro il fondatore di Biodanza?

Si, l'ho conosciuto nel 1997 assieme ad Alejandra Villegas (con la quale collaboro anche oggi). In quell'occasione gli abbiamo chiesto se fosse interessato ad effettuare uno studio su Biodanza riguardo agli effetti psicologici e fisiologici della pratica: Rolando ha risposto con molto entusiasmo all'idea. Così nel 1998, in collaborazione con Veronica e Raul Terren (docenti di Biodanza), abbiamo portato a termine i primi studi all'interno di tre università a Buenos Aires, lavorando attraverso parametri di carattere psicologico e andando a misurare soprattutto l'effetto della riduzione dello stress. Studi sugli aspetti psicologici di Biodanza (Buenos Aires 1998-99 e successivamente a Lipsia) con Rolando Toro, Raul Terren e Alejandra Villegas

#### Hai proseguito questi studi?

Si ho continuato a lavorarci a Lipsia nel 1999 e Rolando mi ha sempre seguito con vivo interesse. Poi la ricerca si è estesa al mondo della scuola e agli effetti di Biodanza sul sistema immunitario, sulla fisiologia ed endocrinologia. Uno studio particolare l'ho dedicato a Biodanza acquatica in collaborazione con l'istituto di Immunologia e psicologia di Lipsia e con questo lavoro ho concluso il mio PHD per diventare docente universitario (2007).

#### Questo secondo passo ti ha aperto altre opportunità oltre a quella dell'insegnamento universitario?

Si perché ho ottenuto dal governo l'incarico di occuparmi di un progetto definito "Biodanza Children evidence" che riguardava gli effetti be-

#### Why this lecture today?

Raising awareness of the importance of the empirical sciences in Biodanza and ist organisation, because we have the feeling that it is decreasing

#### Introduction about the basics of Biodanza research

..... in the difference between thesis, monography, scientific monography, monography of investigation

Analysis of the Situation about empiric science in the Biodanza movement

#### **About the situation**

Im Oktober war die empirische Wissenschaft das erste Mal überhaupt eingeladen in einer Didakta-Ausbildung in Columbien und Venezuela



#### Didakta-Ausbildung in Columbien und Venezuela

# The role of empirical research in Biodanza? How much science is there in Biodanza?





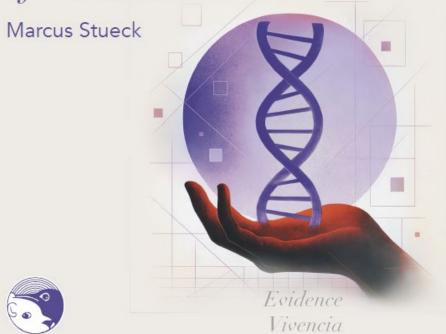
Prof. Dr. habil. Marcus Stueck

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

Download the lecture and three publications related to the lecture at www.bionet-research.com

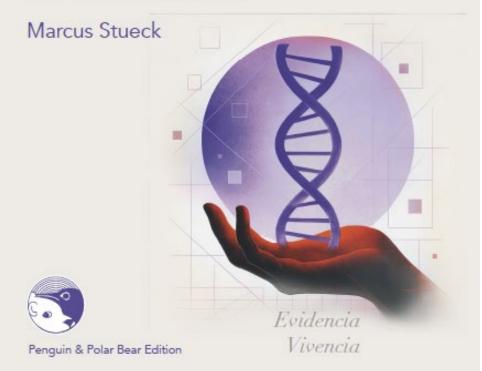
Exploring the Unknown
The empirical research behind Biodanza Vol.1

From experience to evidence: the scientific exploration of Biodanza



Explorando lo Desconocido La investigación empírica detrás de Biodanza Vol.1

De la experiencia a la evidencia: la exploración científica de la biodanza



Stueck, M. (2025)
"The Borders of
Biodanza –
Ananalysis on the
base of the
Biocentric Health
Theory and the
Legacy of Rolando
Toro"

Book free download: www.bionetresearch.com

Penguin & Polar Bear Edition

#### **About the situation**

#### **Observation 1:**

Integration neuer Methoden und Definitionen in die Theorie (Chakrenarbeit, Tantra, Entheogene Substances),

IBFed Subcomisión Metodológica Biodanza e Investigación

Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

**Observation 1** 

#### ohne Prüfung der Passung zum Theoretischen Modell

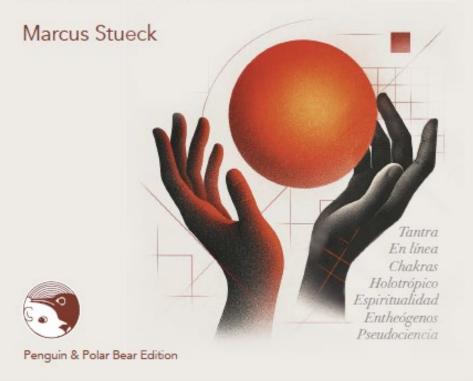
.... Das ist aber wichtig damit Biodanza seine Essenz behält — im Sinne von Rolando Toro. (Kritische Observation 3, S. 11).

#### Bestimmung der Grenzen von Biodanza.

- Durch Original-Texte
- Zeitzeugen
- Metatheorien
- Empirische Forschung

Explorando lo Desconocido -Estudios de Biodanza Vol. 2

¿Qué puede integrar Biodanza? Estudios sobre los límites de Biodanza



Explore the Unknown -Biodanza studies Vol.2

Penguin & Polar Bear Edition

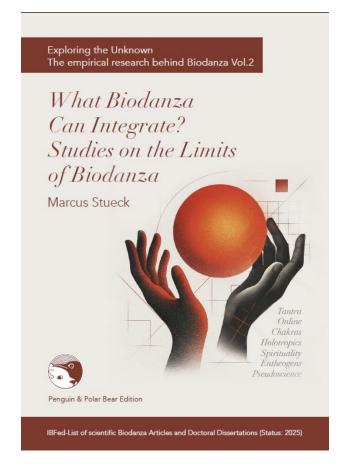
What Biodanza Can Integrate? Studies on the Limits of Biodanza Marcus Stueck Tantra Online Chakras Holotropics Spirituality Entheogens Pseudoscience Stueck, M. (2025)
"The Borders of
Biodanza –
Ananalysis on the
base of the
Biocentric Health
Theory and the
Legacy of Rolando
Toro"

Book free download: www.bionet-research.com

#### What are the limits of the Biodanza method?

#### Derivation of selected limits of Biodanza:

- Entheogenic psychotropic substances
- Metaphysical concept of energy (Bach flower remedies, chakras)
- Tantra
- Online Biodanza
- Holographic breathing
- Ignorance of empirical science as a boundary



Stueck, M. (2025)
"The Borders of Biodanza –
Ananalysis on the base of the
Biocentric Health Theory and the
Legacy of Rolando Toro"

## **Book free download:** www.bionet-research.com

#### Integration neuer Methoden und Definitionen in die Theorie

IBFed Subcomisión Metodológica Biodanza e Investigación

Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

#### **Observation 1**

#### **Problem:**

Inflationary attempts to integrate new definitions.

Research-Book "Linguistic research about the Language In Biodanza "Kateřina Strnadová"

18 definitions of what is Biodanza



#### Integration neuer Methoden und Definitionen in die Theorie



#### What is a scientifically grounded definition?

#### **Observation 1**

A scientific definition in Biodanza describes concepts clearly, verifiably, and in connection with scientific frameworks – in contrast to poetic descriptions.

#### **Core elements:**

**Conceptual precision:** clear, measurable definitions of key terms (e.g. vitality).

**Empirical basis:** grounded in verifiable and published Biodanza research findings.

**Theoretical embedding:** linked to established scientific models.

**Reproducibility:** allows application and verification by other researchers.

**Demarcation:** avoids pseudoscientific claims; focuses on traceable, evidence-based statements.

It is a system of intervention in the epigenetic process through an enriched environment of love (affective contact) and existential self-regulation. "Biodanza is a system of human integration, organic renewal, affective re-education and relearning of the original life functions".

(Definition of Biodanza – International Biocentric Federation, IBFed)

#### **About the situation**

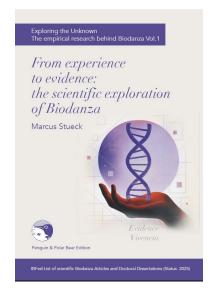
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#### **Observation 2:**

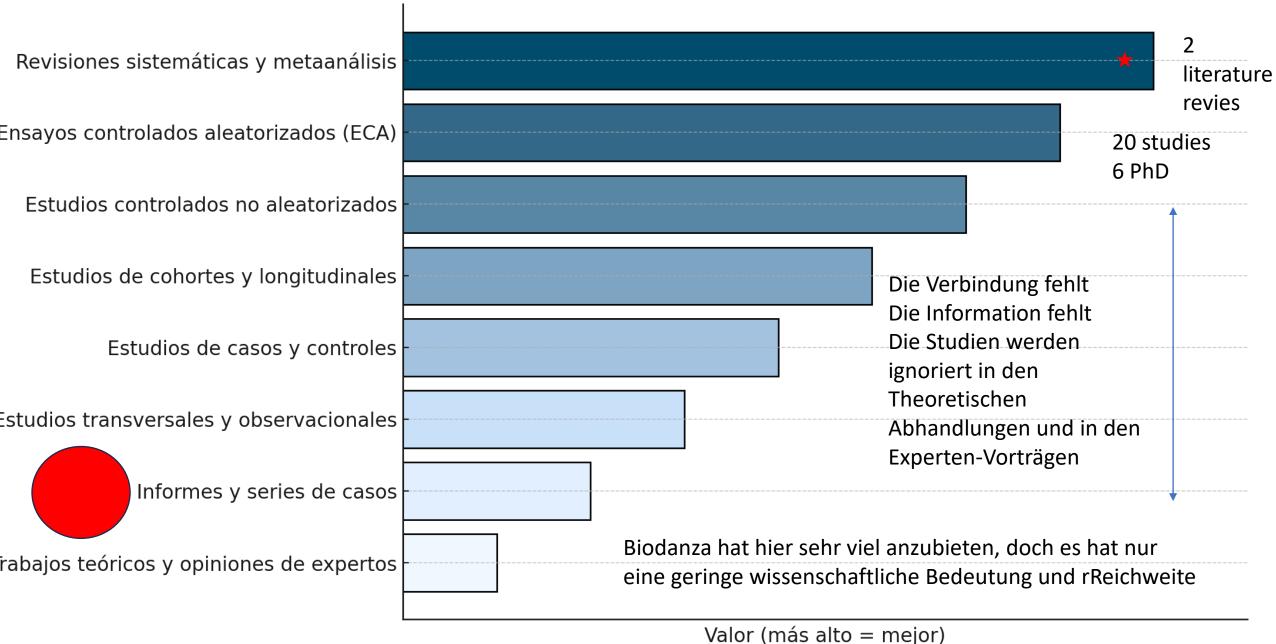
#### Sichtbarkeit empirischer Forschung erhöhen:

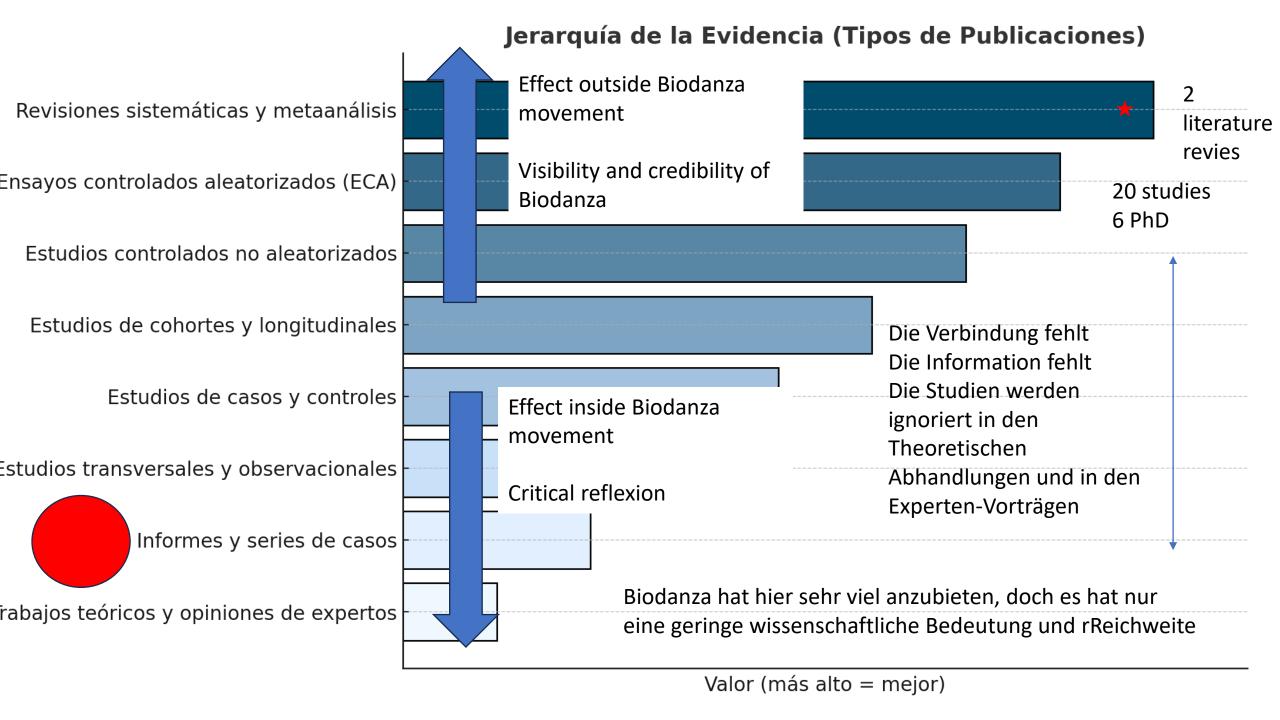
In vielen Bereichen der Biodanza-Ausbildung fehlt bislang eine konsequente Einbindung vorhandener empirischer Studien. (Kritische Observation 1, S. 4)

#### **Observation 2**



#### Jerarquía de la Evidencia (Tipos de Publicaciones)





### Hierarchy of publication types according to scientific quality

Questio

Rank	Publication type	Comment
1	Systematic reviews & meta-analyses	Highest level of evidence, summarise many studies, peer- reviewed only 2
2	Peer-reviewed articles (international	Original research, anonymous peer review, high visibility
	journals, indexed)	estimated=17
3	Review articles (national journals)	Reviewed, but lower reach estimated=4
4	Dissertations (PhD)	Independent research work, examined but not always published Estimated = 6
5	Master's theses / diploma theses	Scientific, but with a smaller reach, often unpublished  Estimated=100
6	Book chapters in anthologies	Reviewed by editors, often no rigorous peer review estimated=50
7	Monographs (scientific books)	In-depth, but usually without peer review Estimated=100
8	Reference books / handbooks	Practice-oriented, not primarily scientific Estimated=100
9	Conference papers / abstracts	Short contributions, partially peer-reviewed, no full evidence Estimated=80
10	Newsletters, practical reports, internal	Lowest level of evidence, mainly internal communication
	reports	Estimated=1000

#### **About the situation**

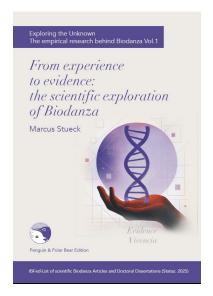
IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

#### **Observation 3:**

### Theoretische Fundierung der Theorie, zu wenig Evidenz:

Die Theorie von Biodanza wird oftmals literaturbasiert diskutiert; es bestehen aber noch zu wenige eigene empirische Studien, die einzelne Annahmen direkt bestätigen. Eine stärkere empirische Verankerung würde die Theorie weiter stärken. (Kritische Observation 2, S. 9)

#### **Observation 3**



Important distinction	in the	empirical	sciences
-----------------------	--------	-----------	----------

**Observation 3** 

<b>Primary</b>	studies
	Judici

Estimated=21

Term

**Secondary studies** Estimated=2

Literature-based argumentation

**Epigenetic, Neuroscience Oxytocin, Biophotons Polyvagal thory** 

Unpublished empirical observations

## **Definition of**

Own empirical data collection to answer a research question.

evaluation of published

Compilation of knowledge

without own data collection.

from books and articles

primary studies.

transparent & published. Systematic summarisation and

- No new data material -Meta-analysis or systematic review - Methodologically documented.

**Characteristics** 

- New data is collected and

analysed - Methodologically

- Purely theoretical - Based on existing concepts, models,

theories - No empirical test.

Example One study measures the effect

of Biodanza on cortisol levels in a sample.

Meta-analysis or literature reviews of all studies on Biodanza for stress.

One author deduces that Biodanza could trigger regression because literature shows that dance promotes regression.

Someone describes the effects Own observations or trials - Practical experience - No of Biodanza based on their without methodological verifiability - No peer review own observations without Mostly anecdotal. documentation or publication. having published studies on the subject

## The role of empirical research in Biodanza?

#### Part 3

#### What is Evidence?



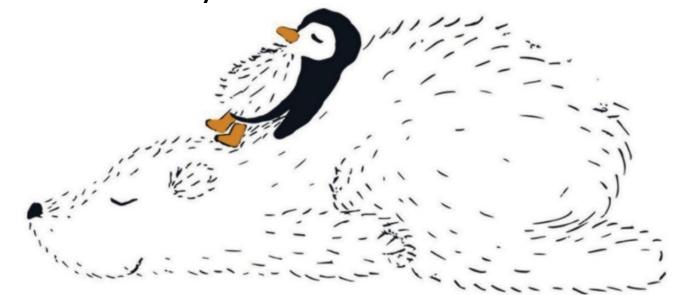
Prof. Dr. habil. Marcus Stueck

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

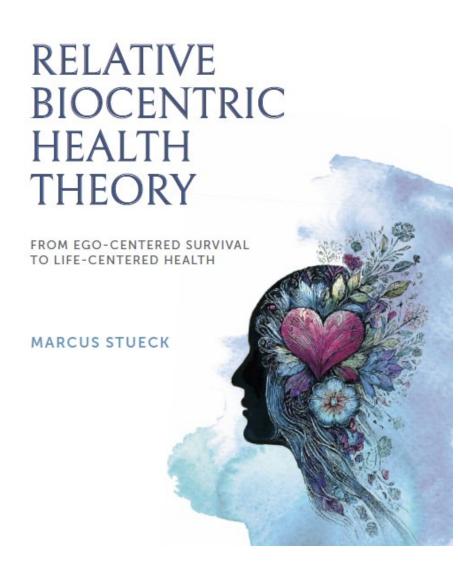
#### Emirical science (evidence) meets Biodanza (experience)

**Evidence** generally means "proof" or "verification" = the life of the polar bear – from the body into the head

**Experience** (Vivencia) means "living in the here and now" = the life of the penguin — from the head into the body



BIOCENTRIC HEALTH IN HUMAN DEVELOPMENT, BAND 1



Evidence generally means "proof" or "verification".



**Evidence** = the existence of verifiable data or observations that support or refute a statement.

It is therefore a question of whether something is **justified**, **comprehensible** and confirmed by research – not just a personal opinion or experience.

#### Example:

"I feel more relaxed after Biodanza" = personal experience.

"In a study, the stress hormone cortisol decreased significantly after Biodanza" = evidence.

The evidence is considered to have been provided once it has been published (ideally in peer-reviewed journals).

#### What is not evidence - pseudoscience?

# Effects are repeatedly postulated and taught that have no evidence in relation to Biodanza.

Six examples of things that have no evidence in Biodanza (=Pseudoscience):

- Specific Dances and hormonal changes
- Polyvagal theory has not been tested with Biodanza.
- Epigenetics has not been studied in relation to Biodanza
- Oxytocin has been tested in relation to Biodanza but there were no effects (Stueck, Raykova, Sturmane, cited in Stueck, 2025)
- Neuroscientific variables have not been tested in relation to Biodanza, or studies have not been taken into account (left-right hemisphere activation, Stueck, Balzer, et al., 1998).
- The entire instinct theory has not been tested in relation to Biodanza

#### What is not evidence?

#### table from school material

Adrenaline/noradrenaline	Dances of Identity; Power; Potency
Serotonin, dopamine	Walking; Rhythmic, melodic synchronisation
Acetylcholine, testosterone	Regressive, slow dances; trance, transcendence
Endorphins	Euphoria, dances of vitality

It is very difficult to determine this, since hormones follow specific rhythmic patterns.

Fundamentos Econofiogicos en Elixación y Sluvtalud / Chrono-Bio-Psicological Basics in Education y al Health 1 Hans-Ullrich Balzer/Marcus Stück/ Libbie Annatagia (Eds.) Introducción a la Crono-Bio-Psicologia

**PETER LANG** 

Comment: This table = hypothesis, we can not teach it in schools as is it evidence

Chronobiopsychology plays little role in Biodanza theory, yet it is the science that explores the human connection to the cosmic environment. This book also includes several Biodanza studies.

When a dance has been performed, the physiological effect often appears with a delay, and it is unclear when the hormonal rhythm actually started.

Sustancia	Tipo de ritmo	Duración del ciclo (aprox.)	Danzas / Nivel de efecto asociado
Adrenalina	Ultradiano	10 minutos	Vitalidad, activación, danza expresiva
Noradrenalina	Ultradiano	5 minutos	Atención, presencia, movimiento rítmico
Serotonina	Ultradiano / Circadiano	90 minutos	Armonía, serenidad, movimientos fluidos
Dopamina	Ultradiano	30 minutos	Alegría, motivación, danzas creativas
Testosterona	Circadiano	90 minutes	Autoconfianza, expansión, encuentro
Acetilcolina	Ultradiano	5 minutos	Conciencia, percepción, contacto
Endorfinas	Ultradiano	60–90 minutos	Éxtasis, conexión, regresión

## The role of empirical research in Biodanza?

Part 4
Publication of research/evidence on Biodanza



Prof. Dr. habil. Marcus Stueck

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck Why the publications for Biodanza are so important?

What we need to understand is that the scientific foundation of Biodanza becomes visible only through publications.

Although Biodanza-studies exist, most have not been published in high-ranking journals, most have not a control group.

That has little reach and makes Biodanza invisible within the academic, scientific, and institutional spheres.

Offizielle IBFed Publikationsliste

#### **Derivation:**

From the perspective of published studies,

Biodanza's scientific basis has only a limited range.

Master's theses / diploma theses

**Book chapters in anthologies** 

Monographs (scientific books)

**Specialist books / handbooks** 

**Conference papers/abstracts** 

Newsletters, practical reports, internal reports

In the last 30 years since the first empirical VG-KG study began, Biodanza has published only about 20 review papers and 2 sumarize, 6 PhD.

Limited visibility in academic, scientific, institutional and organisational level

Other disciplins have up to 1000 publications (DMT)

In this presentation we ask us, what are the reasons for this?

## The role of empirical research in Biodanza?

#### Part 5

# How is research in Biodanza organised and how Biodanza teacher can gain the knowlegde?



Prof. Dr. habil. Marcus Stueck

IBFed Subcomisión Metodológica Biodanza e Investigación Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, Marcus Stueck

#### **Network of empirical researchers in Biodanza - BIONET**

- Much research is initiated "privately"
- There are publications, but the researchers do not know each other

#### **Example:**

 Good publications in Spain or Israel, but we do not communicate with each other

**THATSWHY** Foundation of BIONET = biocentric network

Aim = biocentric networking among people who share the same vision to connect empirical science with biocentric practice

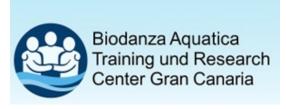
#### How to become member of BIONET?

Please write to info@bionet-research.com











#### **UNIVERSITIES**

**Semerang University (2)** 

**Islam University Yogyakarta** 

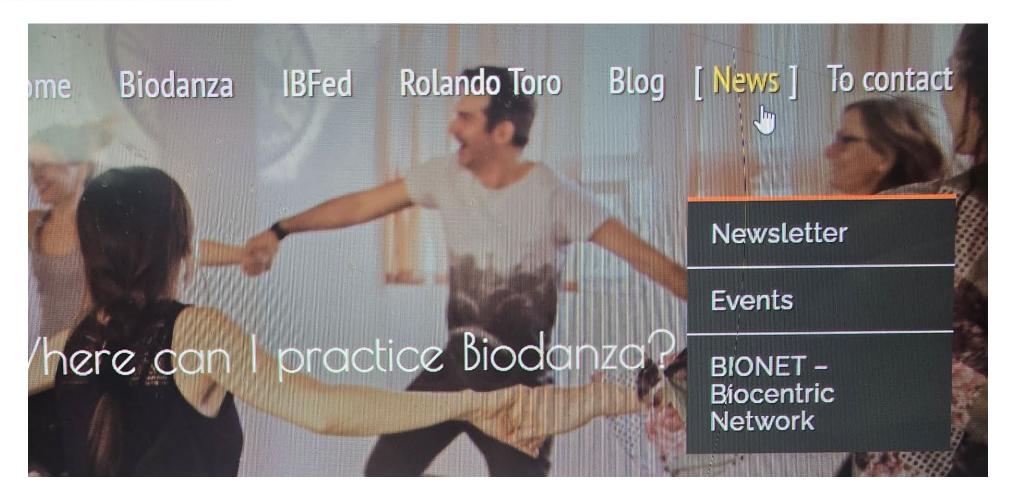
**University Teheran** 

### **IBFed Empiric Research Commission**

Emilse Inés Pola, Juan Gavilán, Myriam Sofía López, MarcusStueck



#### **BIONET** on the IBFed website



Now also linked to the IBFed, www.biodanza.org

#### **BIONET Journal** – www.bionet-research.com

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### **BIONET**

#### Journal of Biocentric Sciences

New Horizons – New paradigms in Health and Human Development



Volume 4/2023

### **Anual Scientific BIONET-Colloquium**

"Research about Biodanza and Biocentric approach"

in Lizari (Latvia)

Online and Presence (Hybrid)



# BIONET COLLOQUIUM

Date: 24.July 2025

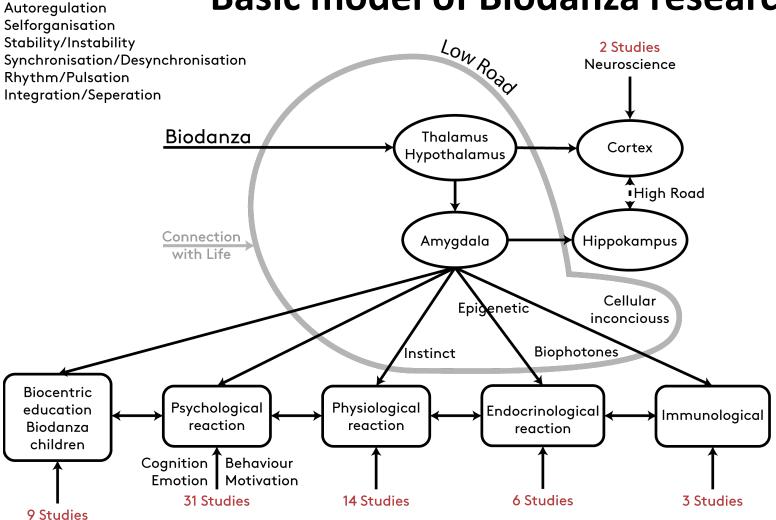
**Every last friday in July + Biodanza-Camp** 

info@bionet-research.com

### What is the International Biocentric Research Academy?



#### Basic model of Biodanza research at IBRA



Stueck, M. (2025). Biodanza and Empirical Science. Publication in preparation.

Most people do not recognize these studies – Biodanza is in a critical state in this regard. It seems as if empirical science is perceived as a threat, because critical reflection is inherent to it. However, this is not personal criticism; it serves to protect and further develop the model. Empirical science may, in fact, be the only tool capable of safeguarding and evolving the system while providing evidence for its components.

### Selection of ongoing research projects at the IBRA



- Psychoneuroimmunology, Biodanza & Biocentric Health
   Health (3 studies: Prague, Riga, Porto, Holland start in November)
- Effects of the Minotaur (study in Riga)
- Biodanza Aquatica (2 studies, Gran Canaria)
- Relative biocentric health theory (2 studies + 1 doctoral thesis)
- Biocosmic patterns in Biodanza groups (study in Holland)
- The voice in trance in Biodanza (Argentina)
- Further biocentric research, e.g. chronobiological foundations

Vineta Greaves, Oscar
Imbernoon, Sebastian
Mueller Haugk,
AneteRaykova, Ulrich
Sack, Marcus Stueck









Team of the Minotaur study in Latvia
International Biocentric Research Academy
(IBRA), University of Leipzig





### **Project - Biodanza Aquatica - Reparentaisation**



#### Results:

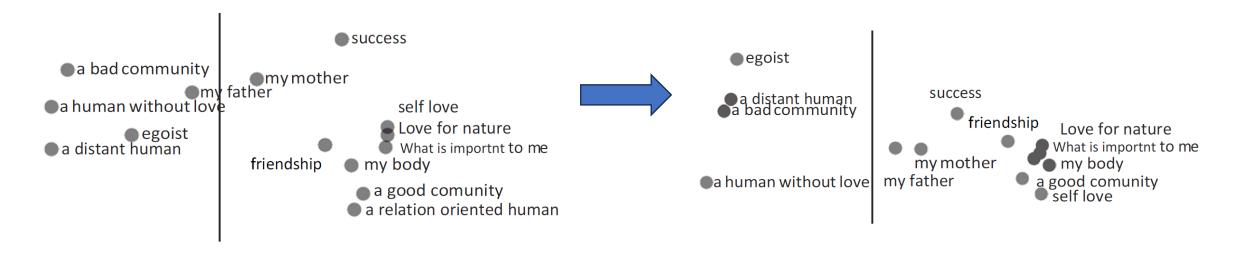
Prä

The results show that Biodanza Aquatica promotes processes of reparenting.

**Post** 

79

Research with Repertory Grid Technique (Kelly) in the change of Mother and Father hidden Attitudes, before and after 5 Sessions of Biodanza



Biodanza and neuropsycho-immunological

Effects: First results of a Pilot-Study

Related to the relative biocentric

Health Theory Model (rbHT)

Prof. Dr. habil Marcus Stueck

Dr. Sebastian Mueller-Haugk

Dr. Kateřina Strnadová,

Dr. Denis Mainz

International Biocentric Research Academy (IBRA)
University of West Bohemia in Pilsen
Dual University Applied Science in Plauen



### **2023** Workshop at the Prague School of Biodanza

### IBRA project in collaboration with the University of West Bohemia in Pilsen



### Theoretical foundations

BIOCENTRIC HEALTH IN HUMAN DEVELOPMENT, BAND 1

**Preparation time** 

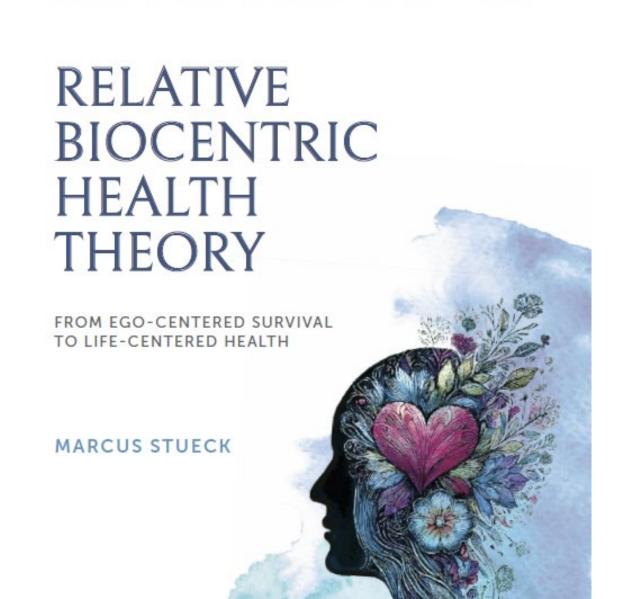
2020 - 2025

**Precursor to the theory** 

Pandemic

Management

Theory (Stueck, 2021)



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### Who can become an IBRA member?

Any Biodanza teacher who has a research project and a concept.

They will be supervised in terms of content.

Starting in September, a short research group meeting is planned every mon (20 minutes presentation, 40 minutes discussion). The supervision of the prowill also be discussed here.

Organisation by IBRA

### **IBRA - Guest status?**





Der QR-Code dieser Gruppe ist privat. Wenn du ihn mit jemandem teilst, kann diese Person ihn mit ihrer WhatsApp-Kamera scannen, um der Gruppe beizutreten.

### Positioning of IBRA to the IBFed:

IBRA should remain an independent research unit in order to:

- avoid conflicts of interest with politically oriented organisations,
- ensure the credibility of its research,
- maintain a critical distance from the Biodanza method,
- promote interdisciplinary dialogue with other scientific disciplines in an open and open ended manner.

The reflective, scientifically sound examination of the research results represents an essential regulator for Biodanza and its theory and model.

# How is research at IBRA financed?



We are currently operating entirely without financial support at the moment "out of love for Rolando and his legacy and out of concern for the method."

The data analyses (including saliva analysis) are funded by income from workshops (e.g. Biodanza School Porto) or donations, e.g. from the Institute of Immunology at the University of Leipzig or the University of West Bohemia in Pilzen.

#### How do we finance the studies?



#### Biodanza y Ciencia – Estudio en tu ciudad

Planeamos y realizamos un estudio de Biodanza basado en evidencia en tu región – desde el diseño hasta la publicación.

#### Lo que ofrecemos:

Diseño del estudio Recolección de datos Análisis • Taller de resultados (Publicación)

#### **Experiencia:**

Ya realizado en Escuelas de Biodanza en Portugal, República Checa y Países Bajos.

¿Interesado? Escríbenos a info@bionet-research a www.bionet-research.com

If you are interested, study can be requested:

info@bionetresearch.com

- Planning the study
- Conducting the study
- Results workshop (publication)



### IBFed-Subkommission "Biodanza und Investigation"

Information seminar
For school principals
Information about the latest
research projects
Information about Bionet with
scientific articles



www.bionet-research.com

### informat ivo para Directores escolares Comisión Metodológica IBFed **Monografías Científicas** en Biodanza Información Newsletter IBFed **Emilse Inés Pola** Juan Gavilán Myriam Sofía López **Marcus Stueck**

How can I register for such a seminar?

#### Formato en línea

# Seminarios informativos

A diversas investigaciones en proyectos biodanzáticos biocéntricos



**Marcus Stuck** 

marcus.stueck@bionet-research.com www.bionet-research.com The curriculum with the information seminars on empirical sciences begins in January 2026 A country or a biodanza school can apply.

info@bionet-research.com

The seminars can also be attended as IBRA guests

'Information on empirical studies in Biodanza' 1 session approx. 2 hours (maximum 10 hours)



# Seminarios informativos

A diversas investigaciones en proyectos biodanzáticos biocéntricos



**Marcus Stuck** 

marcus.stueck@bionet-research.com www.bionet-research.com



La investigación empírica detrás de Biodanza

PARTE: Introducción ¿Cuánta ciencia hay en Biodanza?

una reflexión crítica

**Marcus Stueck** 



## Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE:
Introducción –
cuando el pingüino
encuentra al oso polar

**Marcus Stueck** 





#### Formato en línea

# Seminarios informativos

A diversas investigaciones en proyectos biodanzáticos biocéntricos



Marcus Stuck

marcus.stueck@bionet-research.com www.bionet-research.com

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

#### PARTE 1:

Estado de la investigación y ciclo de investigación en Biodanza

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 2: Biodanza, fisiología y cronobiología

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 3: Biodanza y psiconeuroendocrinologia

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 4: Biodanza y Psicología

**Marcus Stueck** 



Polar Bear & Penguin Edition

Formato en línea

# Seminarios informativos

A diversas investigaciones en proyectos biodanzáticos biocéntricos



**Marcus Stuck** 

marcus.stueck@bionet-research.com www.bionet-research.com

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

#### PARTE 5:

Biodanza con niños y trabajo biocéntrico basado en evidencia

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

#### PARTE 6:

Programas basados en evidencia para instituciones y organizaciones - guías práticas

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

#### **PARTE 7:**

Evaluación y licitación de proyectos biocéntricos de Biodanza

**Marcus Stueck** 



Polar Bear & Penguin Edition

### **Explorando lo Desconocido**

La investigación empírica detrás de Biodanza

#### PARTE 8: Los límites de la Biodanza y el principio biocéntrico

Investigaciones de indicaciones y contraindidcaciones

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 9: Las tesis doctorales (PhD) en Biodanza

**Marcus Stueck** 



Polar Bear & Penguin Edition

### Explorando lo Desconocido

La investigación empírica detrás de Biodanza

#### **PARTE 10:**

La historia de la investigación empírica bio-céntrica en Biodanza

**Marcus Stueck** 



Formato en línea

# Seminarios informativos

A diversas investigaciones en proyectos biodanzáticos biocéntricos



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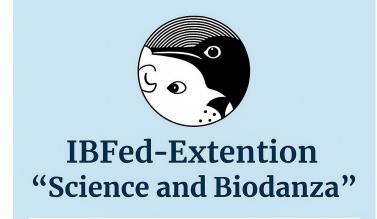
# Explorando lo Desconocido

La investigación empírica detrás de Biodanza

PARTE 13: El Ego en Biodanza – un estudio empírico

**Marcus Stueck** 





Aprende nuevas prácticas en trabajo biocéntrico basado en evidencia en contextos profesionales

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Only Biodanza teachers are eligible to attend the IBFed Extension. The Extension consists of one module and is conducted in person.

### The role of the empiric research in Biodanza?

# **Teil 6 Preliminary Conclusion**



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### **Preliminary conclusion**

- The presentations shows, that since Rolando Toro's death, empirical research has become essential for protecting Biodanza's theory and practice through critical reflection and guiding future developments.
- The integration of empirical Biodanza research remains insufficient.
   For the first time, empirical findings were presented during the Didacta training in Venezuela—something still missing in Europe and other trainings.
- Empirical science is not part of school modules or teaching materials.
- Currently, there is little awareness of Biodanza's limitations, leading to partial self-destruction of the system.

### **Critical Situation**

- It remains unclear whether the theoretical model of Biodanza is scientifically grounded—there is still no validated model for the biocentric principle.
- Without integration and use of the empirical science Biodanza the theory and the modell of Biodanza is based on literature based argumentations or unpublished empiric observations
- This creates the impression that Biodanza is scientific because it sells well but in fact, it is unscientific, pseudoscientific.

## **Preliminary conclusion**

### **Lack of Scientific Visibility**

Biodanza lacks visibility through high-quality publications and is therefore of limited relevance for organisations and institutions.

- There is a lack of clear internal and external communication about this critical situation is needed.
- The voices who claim more understanding or support for empirical research are hardly heared.

Monographies helps to learn how to research and to develop critical thinking





# The future of Biodanza depends on our ability to cultivate dialogue between experience (art) and science.

Empirical research should not be seen as a threat, but rather as a form of love for life that translates Toro's mission into the present

Marcus Stueck

Gracias a mis colegas de la Subcomisión de la IBFed por la buena colaboración y la confianza.

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¡Gracias por su atención!

¿Alguna pregunta?

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