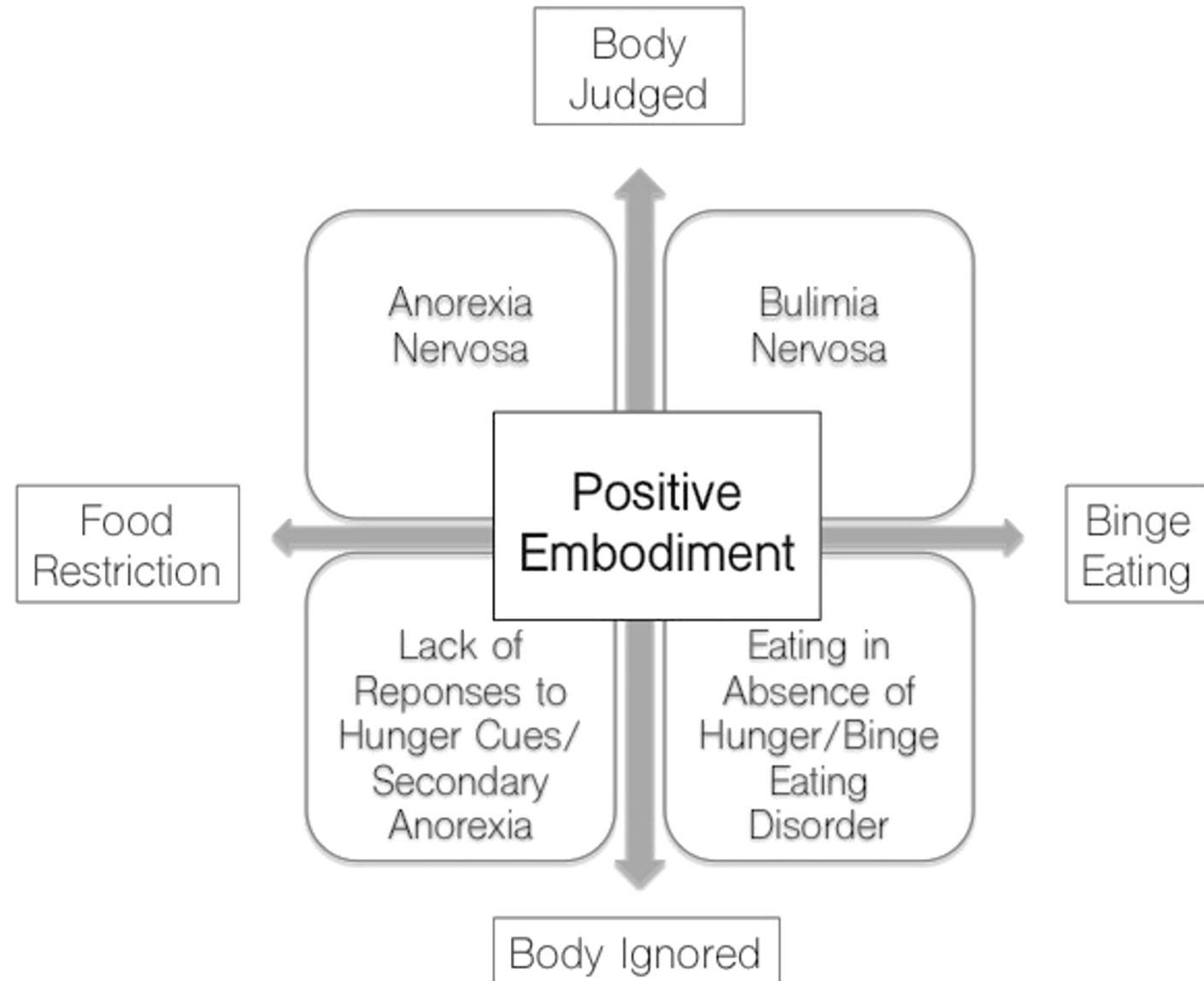




# Yoga, Embodiment, and the Pathway to Healing

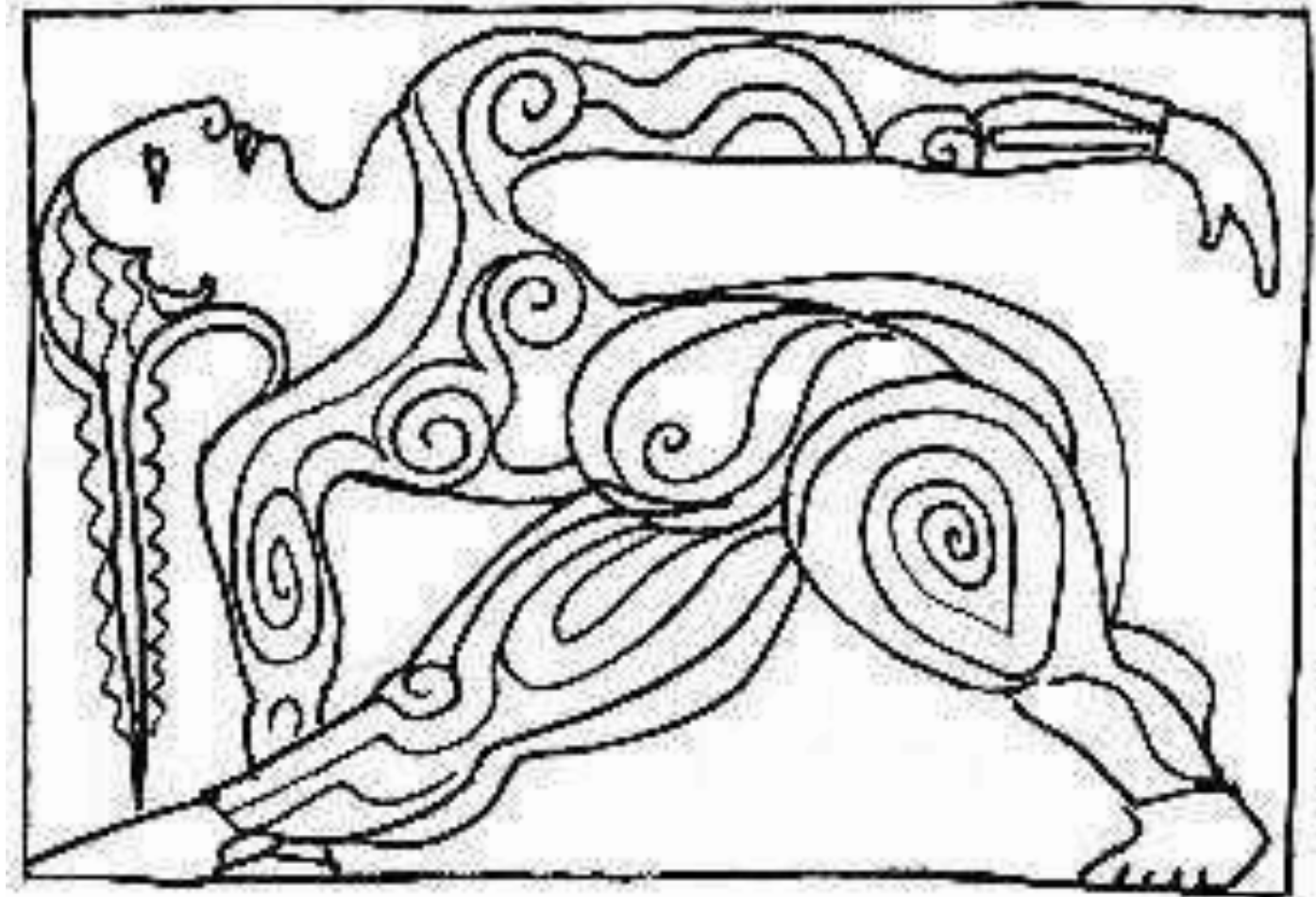
Catherine Cook-Cottone, PhD, C-IAYT  
University at Buffalo, SUNY

# Disorder and Embodiment

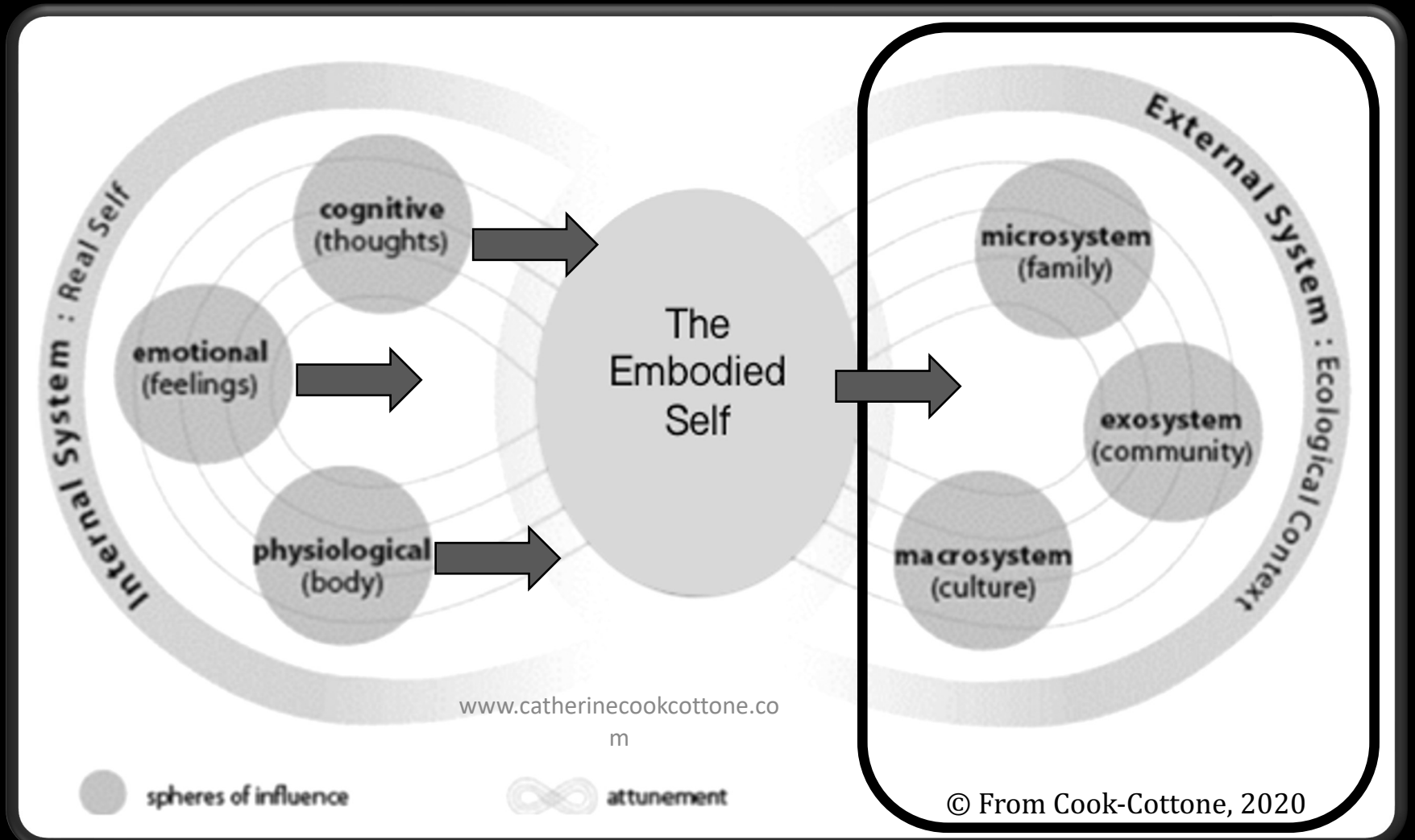


# Etiology

- Psychologically and physiologically complex
- Exists within layered internal and external systems of mutual influence and co-regulation
  - Internal: Cognitive, Emotional, Physiological
  - External: Familial, Community, Culture

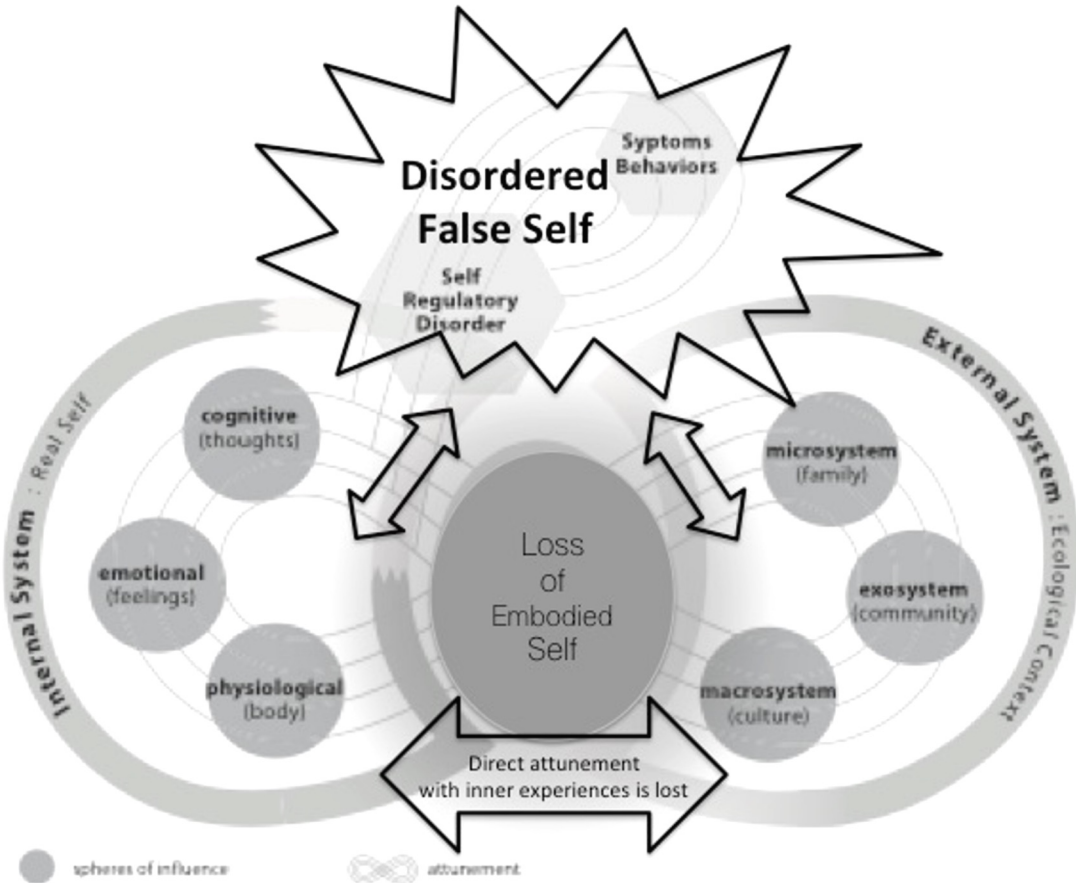


# Attunement with The World over Interoception and Self-attunement *(Highly Sensitive/Trauma-Response/Empathic)*





# The False Self and Disorder



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[www.catherinecookcottone.com](http://www.catherinecookcottone.com)

**I am okay,  
if you are okay**

**I am pleased with me,  
if you are pleased with me**

**I will accept myself,  
if you accept me**

**I will disappear (be perfect, smile),  
so, my needs won't overwhelm you  
(and me)**

image by Gantas Vaiciulenas  
from Unsplash.com

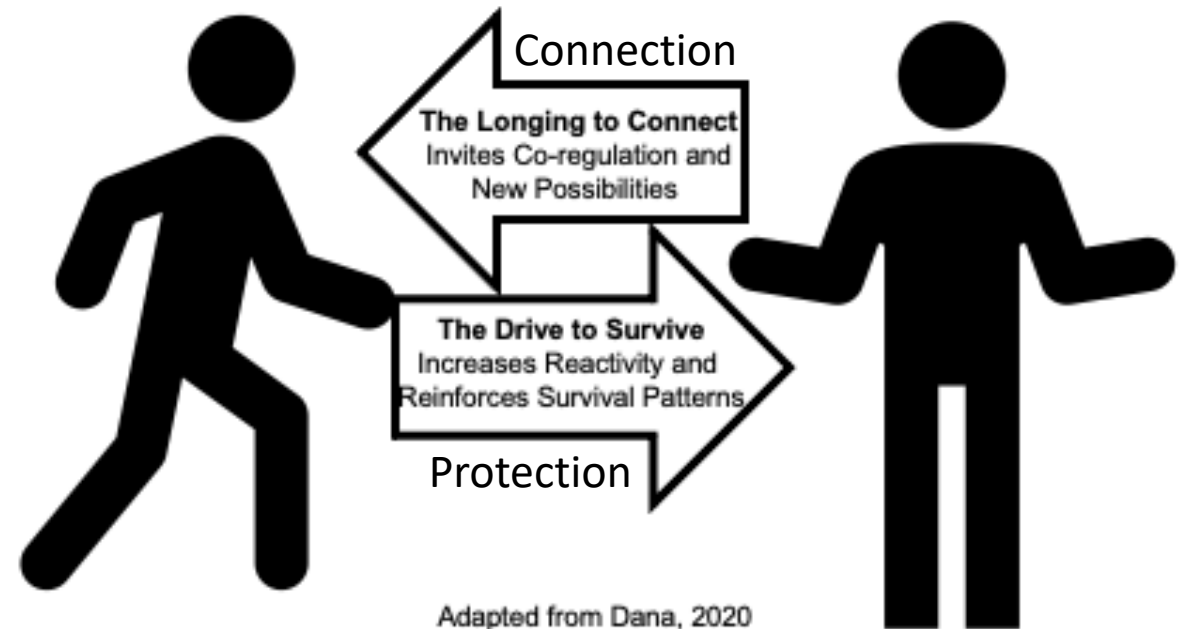


# Working with States of Arousal/Polyvagal Theory

## Connection and Protection (Safety)

- In EDs, the connection with others is often false/constructed and other-directed (the true self is abandoned/ignored)
- The ED symptoms create a false/disordered connection with self- that threatens the physical self and offers no real connection
- Both the connection to self AND others can feel threatening/overwhelming.

For those with EDs, consider this for Self and Others  
**The Cues Sent from One Nervous System to Another**



# Body | Awareness, Connection, and Regulation

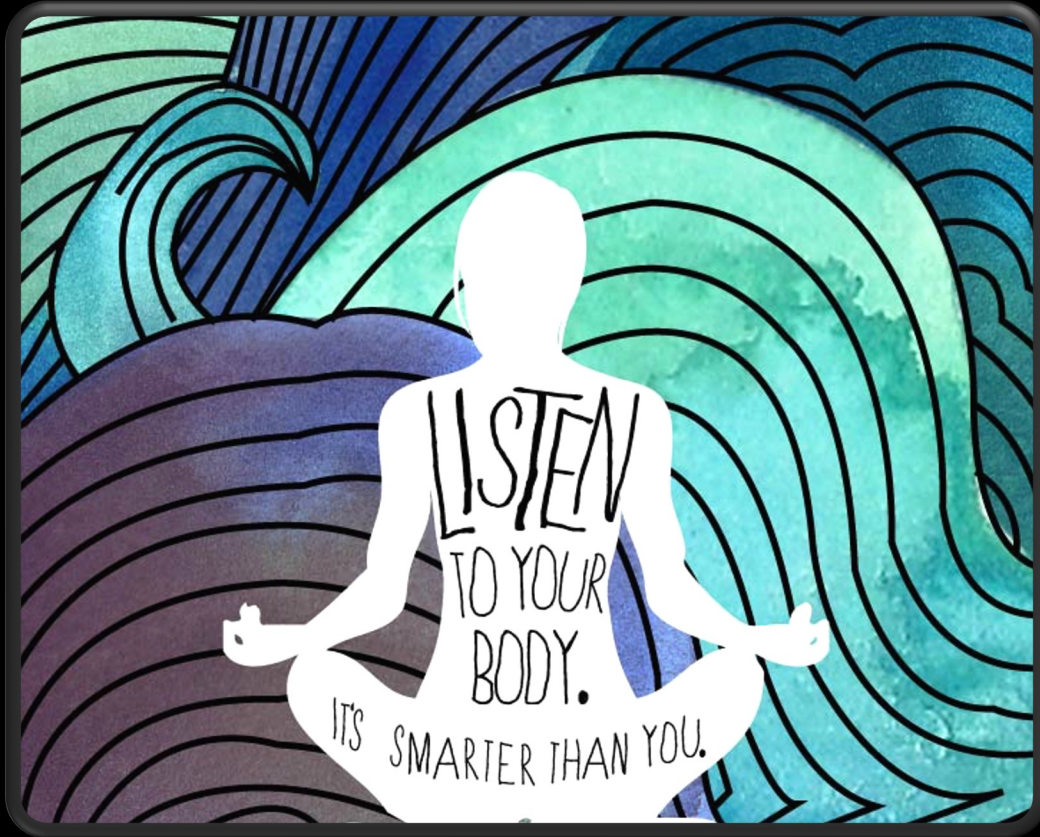
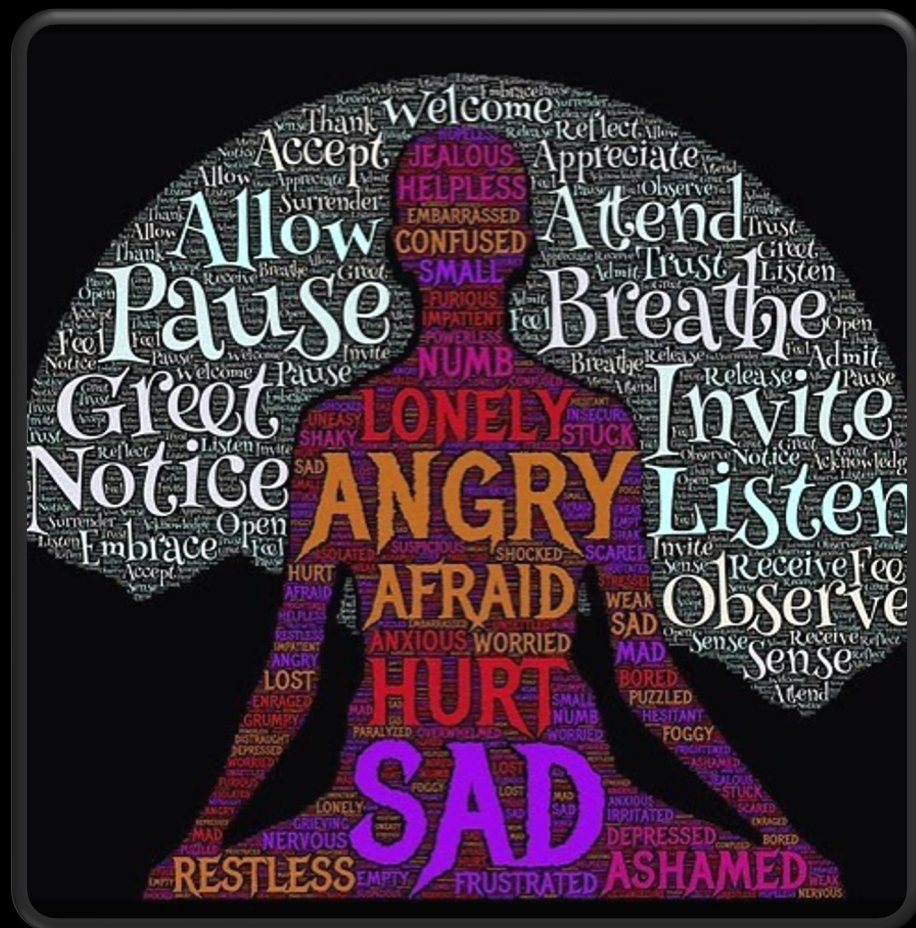


Image from <http://yogamamabear.com/downward-facing-blog/build-body-awareness-all-the-time-not-just-on-your-mat>

- Low interoceptive awareness (inside the body)
- Low exteroceptive awareness (body in space and movement)
- Low awareness of, and ability to regulate polyvagal states (connection v. protection)
- Experiential avoidance
- Little connection to bodily needs, wants, and desires
- Body image distortion, dissatisfaction, and body surveillance.
- Dieting, starving, and other stressful engagement with the body



# Emotions | Awareness, Connection, and Regulation



- Low emotion awareness, identification, and regulation
- High sensitivity to emotions and behaviors of others
- Difficulty with uncomfortable feelings and moods
- Poor distress tolerance
- Little ability to connect with emotions to inform choices and decision

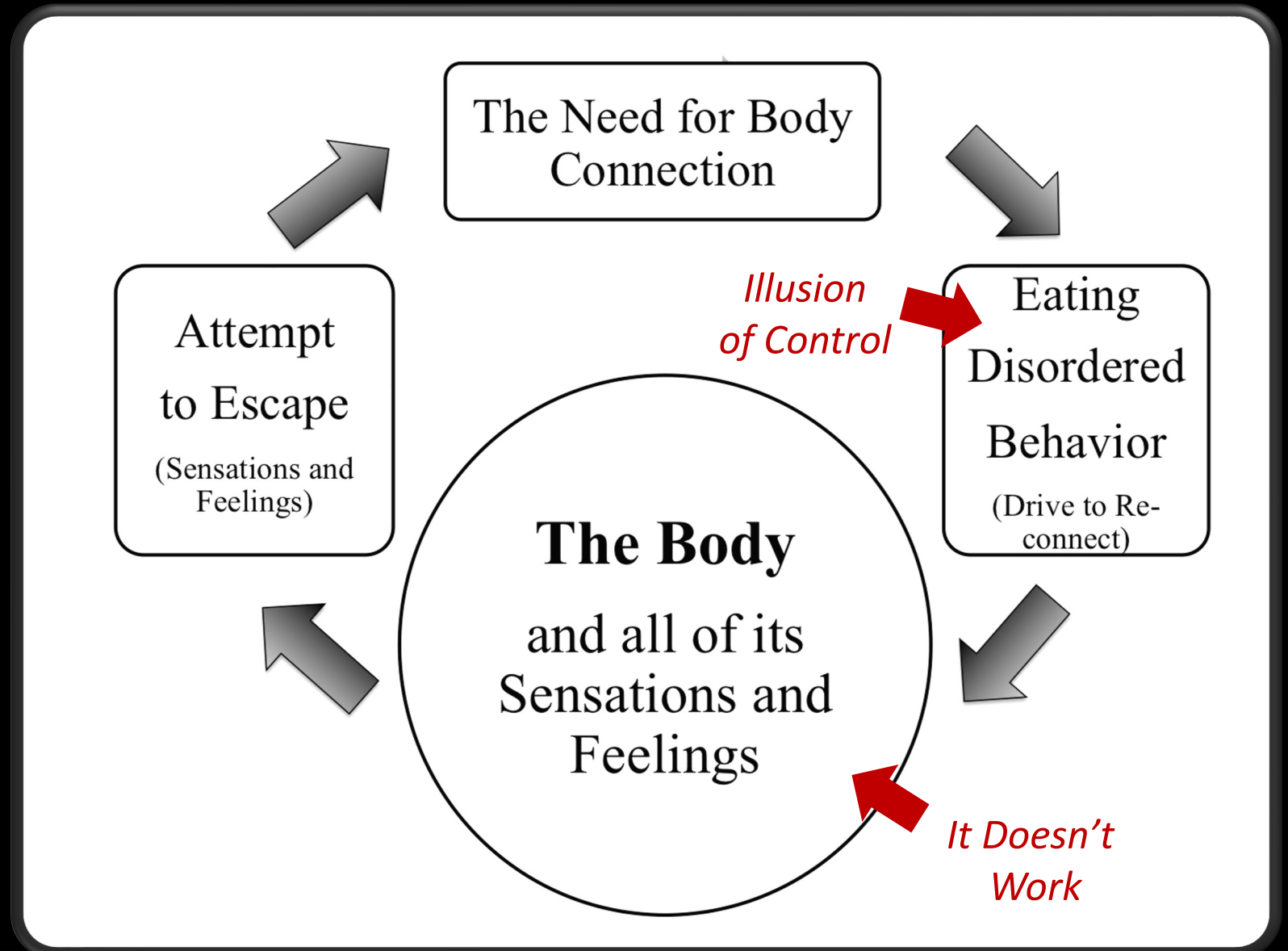


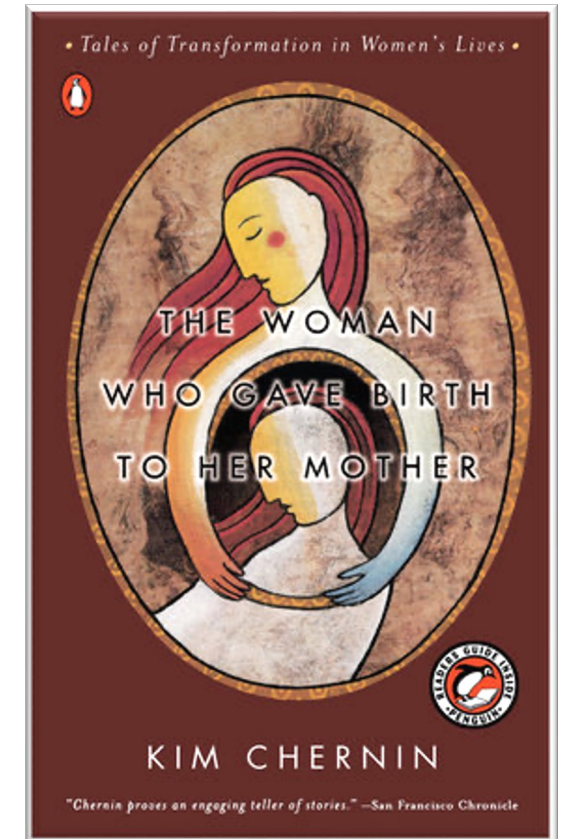
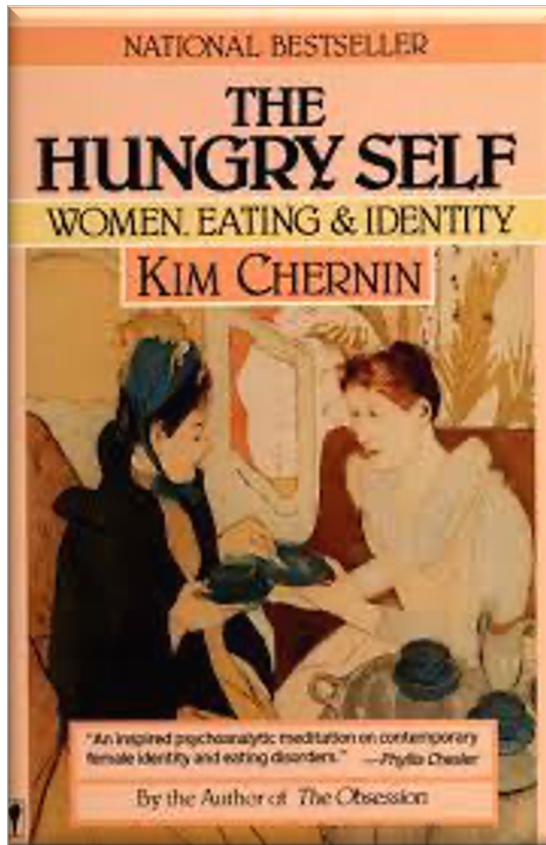
# Conceptual and Spiritual | Awareness and Connection



- Self-objectification
- Meaning displacement (calories, pounds, control, perfectionism reign supreme)
- Externally oriented self-regulation- emotions and thoughts
- Relational/interpersonal focus and overwhelm
- Little/no connection with a deeper sense of purpose and meaning

# The Self-Perpetuating Cycle of Escape and Connection





# The Hungry Self

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# The Hungry Ghost | The Disembodied

(Cook-Cottone 2020, p. 13)

Photo from <https://medium.com/@jessicasemaan/the-hungry-ghost-and-always-wanting-more-2bb397dbdc10>

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“I am not in front of my body, I am in my body or rather  
I am my body.” Merleau-Ponty, 1996

Embodying  
Eudaimonic  
Wellbeing  
(Sullivan, 2020)



Positive  
Embodiment  
(Cook-Cottone, 2020)

photo from <https://katetparker.com/WORK/STRONG-IS-THE-NEW-PRETTY/thumbs>

[www.catherinecookcottone.com](http://www.catherinecookcottone.com)

*Embodiment* is a way of being-

- in which being is understood as residing in and manifesting from the body
- as one experiences the
  - internal (i.e., physiological, emotional, cognitive),
  - external (i.e., interpersonal, social, and cultural), and
  - existential dimensions of life.

Cook-Cottone, 2020

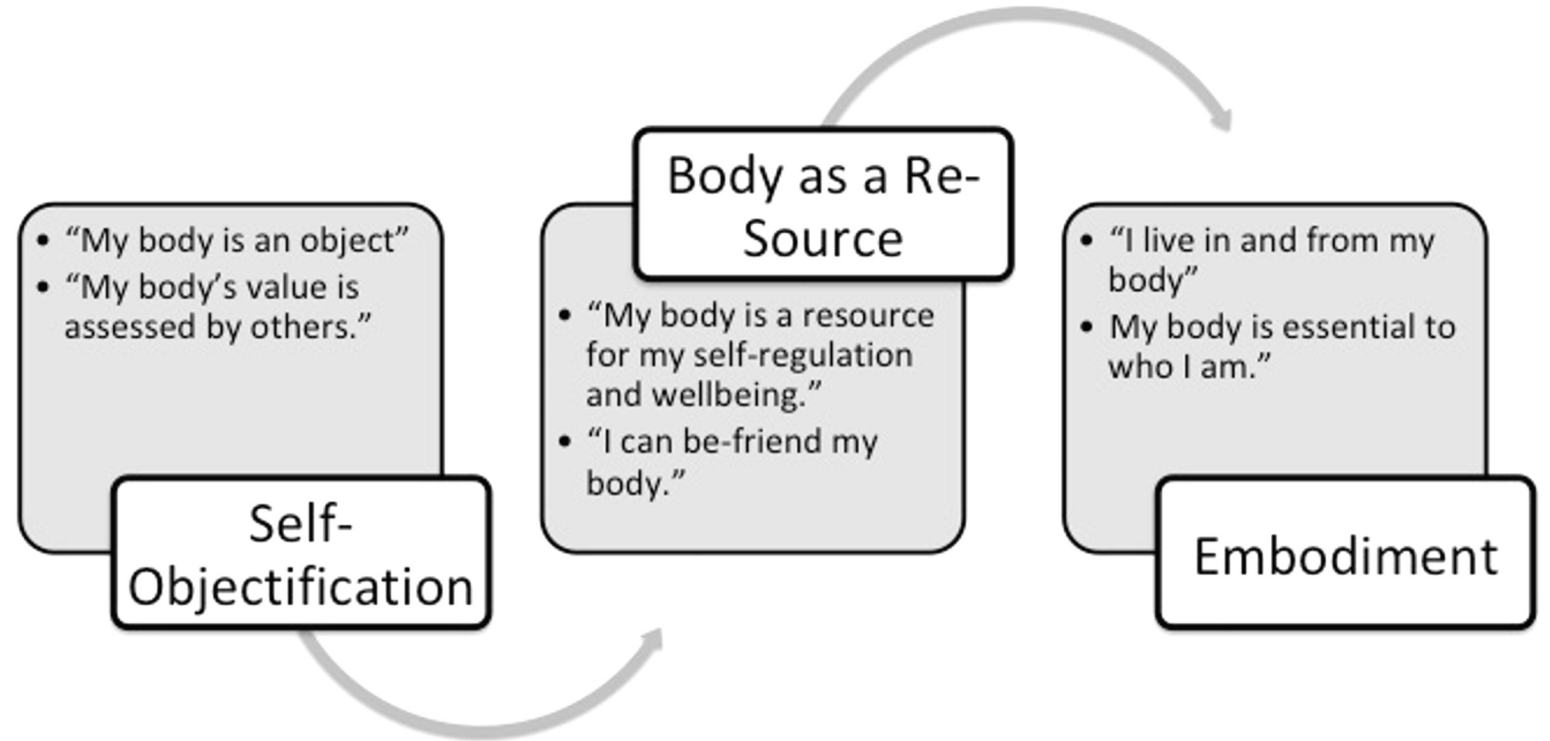
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Image from <https://downtownfrederick.org/event-pro/embodiment/>



# From Self-Objectification to Embodiment



© From Cook-Cottone, 2020

# Human Being | Lived Body Lived Experience

“The body is our general  
medium for having a world”

Maurice Merleau-Ponty (2002). *Philosophy of the Flesh*, p. 169



Integrating Yoga and  
Eating Disorder Intervention



Professional Practice Guidelines for  
Eating Disorder Treatment

+

Eating Disorder and Yoga Research  
Findings

+

Yoga



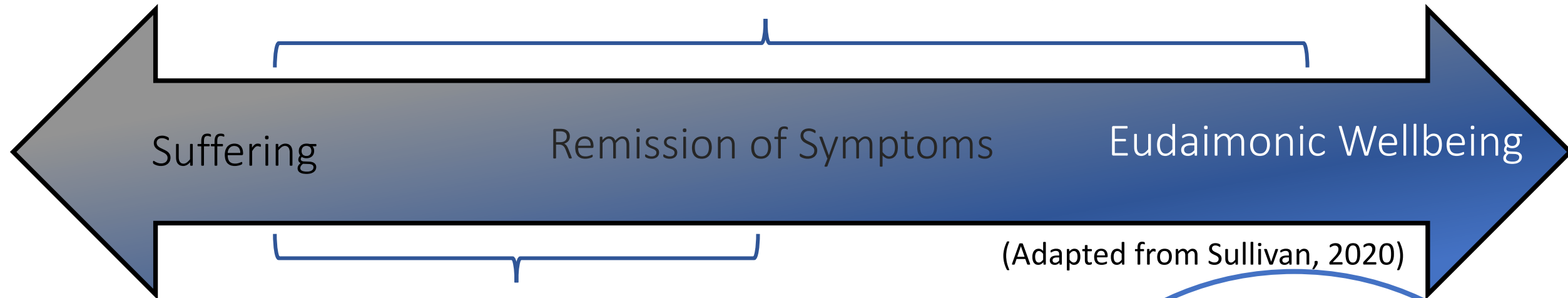
# Empirically Supported Treatments

- Medical Management by MD with ED training
- Nutrition Counseling with Registered Dietician Nutritionists with ED training
- Mental Health Counseling with Psychologist, MSW, LMHC (other other licensed MH practitioner with ED training)
  - CBT-E (thoughts, feelings, behaviors)
  - Family-Based Treatment (e.g., Maudsley)
  - DBT- ED (ER, DT, Mi, IE)
  - IPT (Self and Relationships)
  - No recommended medications
- Estimates- 30/45 to 70% recover, 28-33% improve, and 20% chronically ill, and 0.7/2.1% -20% mortality.

Not  
good  
enough.

[https://www.researchgate.net/profile/Hans-Christoph-Steinhausen-2/publication/10918199\\_The\\_outcome\\_of\\_adolescent\\_eating\\_disorders/links/58ece836a6fdcc14b000fdb2/The-outcome-of-adolescent-eating-disorders.pdf](https://www.researchgate.net/profile/Hans-Christoph-Steinhausen-2/publication/10918199_The_outcome_of_adolescent_eating_disorders/links/58ece836a6fdcc14b000fdb2/The-outcome-of-adolescent-eating-disorders.pdf)

# Focus of Treatment and Yoga



→ Focus of Treatment

## Suffering

Clinical Manifestations  
of Disordered Eating

Physical/Emotional/  
Relational Distress

Little/Disordered  
Embodiment  
Self-Objectification (ego)

False Self/No Attunement

No Sense of  
Meaning/Purpose

## Remission of Symptoms

No Symptoms

Less Physical/Emotional/  
Relational Distress (More Tools)

## Often Not Addressed

✗ Embodiment

✗ Authentic Experience of  
Self and Attunement (Self)

✗ Sense of  
Meaning/Purpose

## Eudaimonic Wellbeing

No Symptoms and Less Physical/Emotional/  
Relational Distress (Even More Tools)

Positive Embodiment  
(e.g., Joy, Compassion, Equanimity,  
Loving Kindness,  
Contentment)

Authentic Experience of  
Self and Attunement (Self)

Sense of  
Meaning/Purpose  
(Dharma)

# State of the Research | Yoga and Eating Disorders

## Yoga Teaching and Basic Practices

(Asana, Breathwork,  
Relaxation, &  
Meditation)

Growing Body of  
Evidence

## Yoga Therapy

Emerging Theory and  
Practice- No Research

## Future Goals

Empirically Supported  
Yoga and Yoga  
Therapy  
Protocols/Practices for  
Assessment and  
Intervention



# Why Research Matters

**NICE** National Institute for Health and Care Excellence

Search NICE...

Guidance ▾ Standards and indicators ▾ Life sciences ▾ British National Formulary (BNF) ▾ British National Formulary for Children (BNFC) ▾ Clinical Knowledge Summaries (CKS) ▾

Read about [our approach to COVID-19](#)

Home > NICE Guidance > Conditions and diseases > Mental health and behavioural conditions > Eating disorders

## Eating disorders: recognition and treatment

NICE guideline [NG69] Published: 23 May 2017 Last updated: 16 December 2020

NICE guideline [NG69] Published: 23 May 2017 Last updated: 16 December 2020

Retrieved 6/22/2023 at <https://www.nice.org.uk/guidance/ng69>

## 1.7 Physical therapy for any eating disorder

- 1.7.1 Do not offer a physical therapy (such as transcranial magnetic stimulation, acupuncture, weight training, **yoga** or warming therapy) as part of the treatment for eating disorders.

# Journal of Treatment and Prevention

Yoga for Positive Embodiment in  
Eating Disorder Prevention and  
Treatment (2021)

TOC Special Issue, Volume 28, Issue 4

<https://www.tandfonline.com/toc/uedi20/current?nav=tocList>

All articles for you here (share folder)  
<https://drive.google.com/drive/folders/1-4qv0MW0-fJmJmOkKlz4vWod-YgtlyVI?usp=sharing>





## Eating Disorders

The Journal of Treatment & Prevention



ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/uedi20>

### Eating disorders, embodiment, and yoga: a conceptual overview

Iris Perey & Catherine Cook-Cottone

To cite this article: Iris Perey & Catherine Cook-Cottone (2020) Eating disorders, embodiment, and yoga: a conceptual overview, Eating Disorders, 28:4, 315-329, DOI: [10.1080/10640266.2020.1771167](https://doi.org/10.1080/10640266.2020.1771167)

To link to this article: <https://doi.org/10.1080/10640266.2020.1771167>

### Yoga and the experience of embodiment: a discussion of possible links

Niva Piran & Dianne Neumark-Sztainer

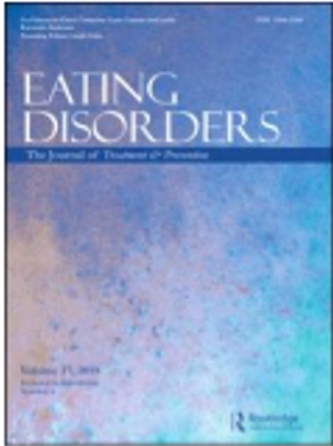
To cite this article: Niva Piran & Dianne Neumark-Sztainer (2020): Yoga and the experience of embodiment: a discussion of possible links, Eating Disorders, DOI: [10.1080/10640266.2019.1701350](https://doi.org/10.1080/10640266.2019.1701350)

To link to this article: <https://doi.org/10.1080/10640266.2019.1701350>

## Conceptual Papers

General Overview of  
Yoga and  
Embodiment Theory

Specific Analysis  
Yoga and  
Niva Piran's  
Developmental Theory  
of Embodiment



# Social Justice and Inclusion Guidance



## Eating Disorders

The Journal of Treatment & Prevention

ISSN: 1064-0266 (Print) 1532-530X (Online) Journal homepage: <https://www.tandfonline.com/loi/uedi20>

### Realizing Yoga's all-access pass: a social justice critique of westernized yoga and inclusive embodiment

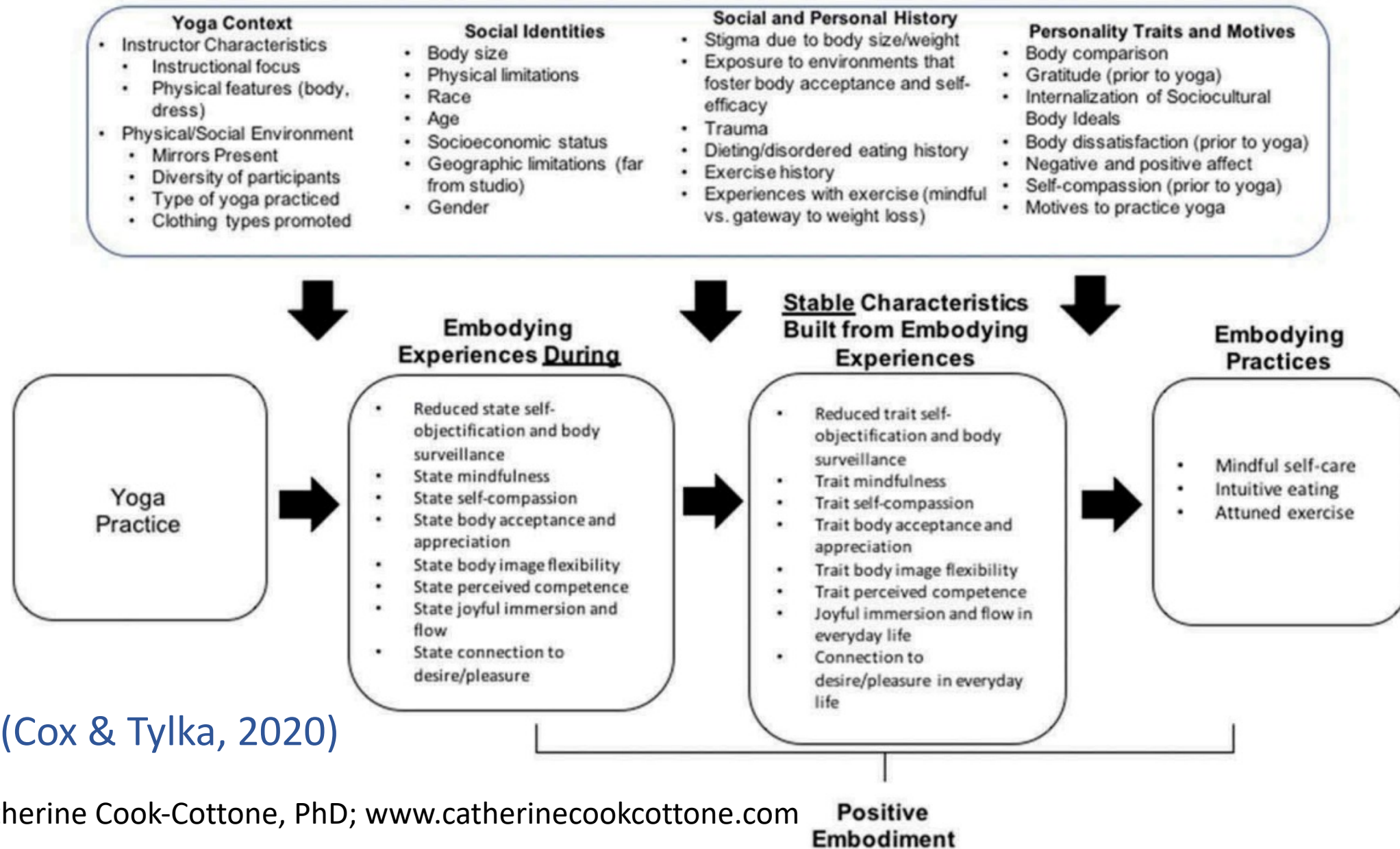
Jennifer B. Webb, Courtney B. Rogers & Erin Vinoski Thomas

To cite this article: Jennifer B. Webb, Courtney B. Rogers & Erin Vinoski Thomas (2020): Realizing Yoga's all-access pass: a social justice critique of westernized yoga and inclusive embodiment, Eating Disorders, DOI: [10.1080/10640266.2020.1712636](https://doi.org/10.1080/10640266.2020.1712636)

To link to this article: <https://doi.org/10.1080/10640266.2020.1712636>



# Yoga and EDs | Research Methods Guidance



# Research Review and Meta-analyses

EATING DISORDERS  
2020, VOL. 28, NO. 4, 400–437  
<https://doi.org/10.1080/10640266.2020.1798172>

 **Routledge**  
Taylor & Francis Group



## **Yoga and eating disorder prevention and treatment: A comprehensive review and meta-analysis**

Ashlye Borden and Catherine Cook-Cottone

Department of Counseling, School, and Educational Psychology, University at Buffalo, State University of  
New York, Buffalo, NY, United States

- **43 Studies (2005-2020)**
  - 10 Correlational studies (comparing yoga/fitness, yoga/no yoga, different types of yoga)
  - 11 non-controlled trials and 5 non-randomized controlled trials (12-ED prevention, 3 yoga as adjunct to treatment)
  - 2 randomized controlled trial comparing yoga conditions
  - 6 qualitative studies
- **11 RCTs including 754 participants (meta-analyses)**

# Summary of Lit Review | Yoga is associated with...

- ↑ body awareness, body responsiveness, body satisfaction/esteem, positive body image, physical self-concept, embodiment, intuitive eating, positive connection with food, gratitude for one's body, sense of accomplishment related to yoga practice, appreciation of the function of the body, connection with emotional wellbeing, ability to cope with trauma, self-compassion, and life satisfaction
- ↓ self-objectification, drive for thinness, weight concern, exercising for weight management/appearance, negative body-related emotions, body surveillance, negative affect, food eaten during binges, decreased eating speed, ED symptoms
- Some studies found no associations (depending on study characteristics)

# Summary Review | Comparing Yoga Conditions

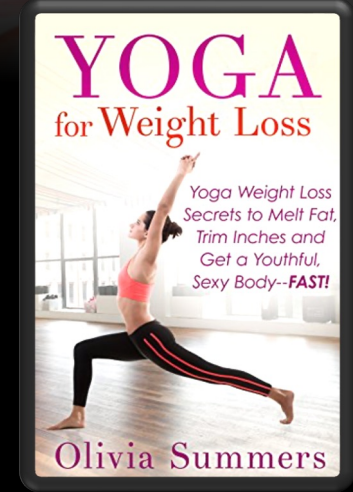
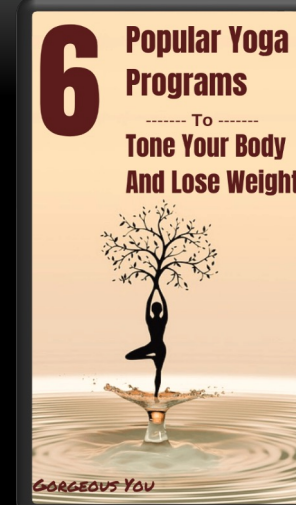
- Mirrored rooms (compared to non-mirrored) → higher state social physique anxiety, and even higher if the person frequently socially compared (Frayeh & Lewis, 2018)
- Appearance-based, mindfulness-based, or neutral yoga (calling poses) → higher body surveillance in appearance-based yoga condition (Cox et al., 2020)





# Summary Review | Qualitative Warnings

- Making upward comparisons with others (comparative critique)
- Engagement in negative self-talk (inner critic)
- Yoga can be used as a tool for the ED (over-exercise, perfectionism, stringent self-discipline, and self-abuse)
- Yoga exposes emotional challenges, vulnerabilities (+ & -)



# Summary of Meta-Analyses (Borden & Cook-Cottone, 2020)

- Results indicated yoga interventions demonstrated (as compared to the control conditions):
  - ↓ Small, significant effect on global eating disorder psychopathology,
  - ↓ moderate-to-large effect on binge eating and bulimia,
  - ↓ small effect on body image concerns,
  - no statistically significant effect on *dietary restraint in either direction*.
  - ↓ Additionally, results indicated a small-to-moderate effect on a composite measure of eating disorder-related constructs.

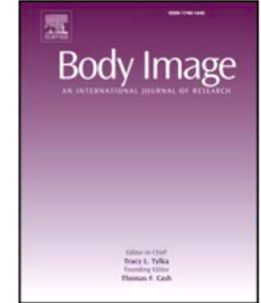


ELSEVIER

Contents lists available at ScienceDirect

## Body Image

journal homepage: [www.journals.elsevier.com/body-image](http://www.journals.elsevier.com/body-image)



# Efficacy of Eat Breathe Thrive: A randomized controlled trial of a yoga-based program



Esther E.E. Estey<sup>a,b,1</sup>, Chelsea Roff<sup>a,b,1</sup>, Michael B. Kozlowski<sup>a,b,2</sup>, Stephanie Rovig<sup>a,b,1</sup>,  
Wendy M. Guyker<sup>a,b,1</sup>, Catherine P. Cook-Cottone<sup>a,b,\*,1</sup>

<sup>a</sup> University at Buffalo, State University of New York, the United States of America

<sup>b</sup> University of Wisconsin-Milwaukee, the United States of America

2022, RCT

<sup>1</sup> University of Wisconsin-Milwaukee, the United States of America

<sup>2</sup> University at Buffalo, State University of New York, the United States of America

# EBT Community Study (Estey et al., 2022)

- Participants (N = 168, 93.5 % women) from a community sample in the United States and United Kingdom, ages 18–65
- Randomly allocated to a 2-h, 7-week EBT program or waitlist-control condition.
- Compared to controls, EBT participants experienced:
  - significant decreases in ED behaviors, depression, and difficulties regulating emotions.
  - Significantly increases in use of mindfulness skills, such as interoceptive awareness, mindful self-care, and mindful eating.
  - After a single session, participants reported immediate improvement in their sense of well-being, indicating increased state positive embodiment.
  - Most effects were sustained at 6-month follow-up.





# Yoga and Eating Disorders | Cook-Cottone, How?

International Journal of Yoga Therapy — No. 27 (2017)

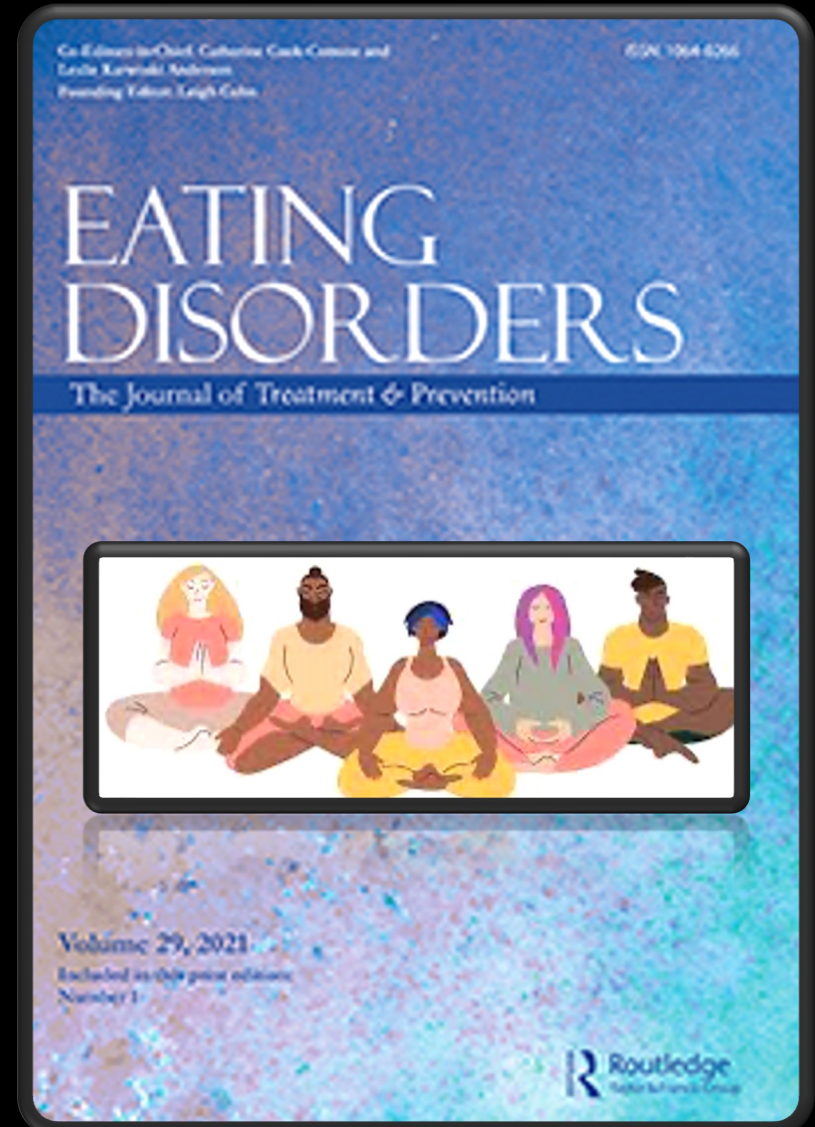
## Research

### Yoga Communities and Eating Disorders: Creating Safe Space for Positive Embodiment

Catherine Cook-Cottone,<sup>1</sup> Laura Lee Douglass<sup>2</sup>

1. University at Buffalo, State University of New York

2. The Van Loan School at Endicott College



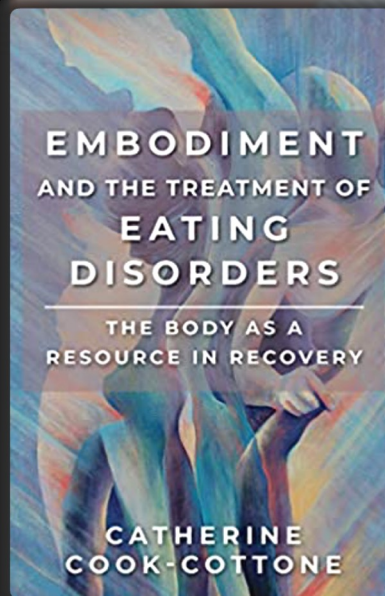
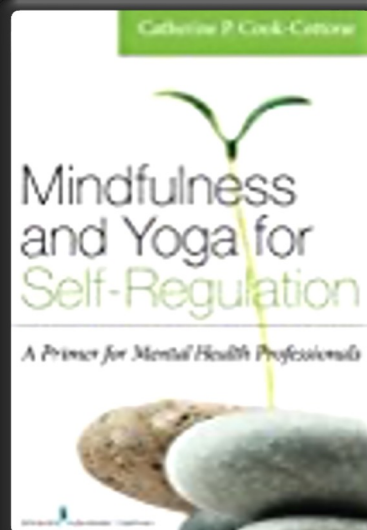
### Girls Growing in Wellness and Balance

Yoga and Life Skills to Empower



Catherine Cook-Cottone and Linda S. Kane

With Contributing Authors  
Emily Keddie and Sara Haugli





# Gratitude for and Acknowledgement of the Tradition and Teachers of Yoga

Yoga philosophy and practice is an ancient practice developed in South Asia.

As a practitioner, yoga teacher, yoga therapist, and researcher, I am grateful for yoga philosophy and practices.

I am also grateful to those who shared yoga with my teachers, and to my teachers who shared yoga with me.

I acknowledge that my understanding of yoga, its traditions, philosophies, and practices is limited.

I am committed, with humility, to my practice and study of yoga.



Rishikesh, 2020

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The special issue in Eating Disorders Journal of Treatment and Prevention

## Resources

[www.catherinecookcotton.com](http://www.catherinecookcotton.com)



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