

# Ethics in Science Resulting from One's Way of Being

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Mary Rees, PhD  
reesmary@gmail.com

Rees, M.G. (2019). *The moment of creation: A meta-model for opening to emergent knowing in science* (Order No. 27739521). Available from ProQuest Dissertations & Theses Global. (2387996628)

*My choice was to describe a three-level approach to science, a deeply ethical science, as charged by Husserl. Such a science was encouraged by Husserl and promised to reap ethical results. I have offered a beginning model that will benefit from further engagement by me and by others. My thinking is still evolving. pp. 362-362*

# Proposal

If we can learn to access  
the source of thought or consciousness at very subtle levels,  
in the co-arising of matter and mind.  
Before dichotomization of subject and object...

We can realize the creative potential  
of pre-conceptual and emergent knowing  
A biological knowing as organisms embedded in the world

And, thus, engage more skillfully - ethically  
in research  
in professions  
in our lives

# Enactive Research

[enactiveresearch.org](http://enactiveresearch.org)

**Annika Lübbert**, PhD, Neurophysiology

Hamburg, Germany

**Enrico Fucci**, PhD, Neuroscience, IGDORE


Fuerteventura, Spain

**Mary Rees**, PhD, Psychology & Interdisciplinary Inquiry

Houston, TX, USA

**Willeke Rietdijk**, PhD, Contemplative Phenomenology

Utrecht, Netherlands



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Psychology and the Other  
Boston College/Hybrid

## Husserl's Challenge

Husserl challenged European science to become more ethical by returning to its roots in philosophy – to renew science through attention to being, to phenomenological philosophy

(Husserl, E. 1900/1970, 1954/1973)

One potential response in both  
doing science  
being a scientist

Contemplative

Phenomenological

Enactive



“

*The basic idea of the enactive approach is that the living body is a self-producing and self-maintaining system [autopoietic] that enacts or brings forth relevance, and that cognitive processes belong to the relational domain of the living body coupled to its environment.*

Thompson, 2016, p. xxv

”

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# Enactive

“

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”

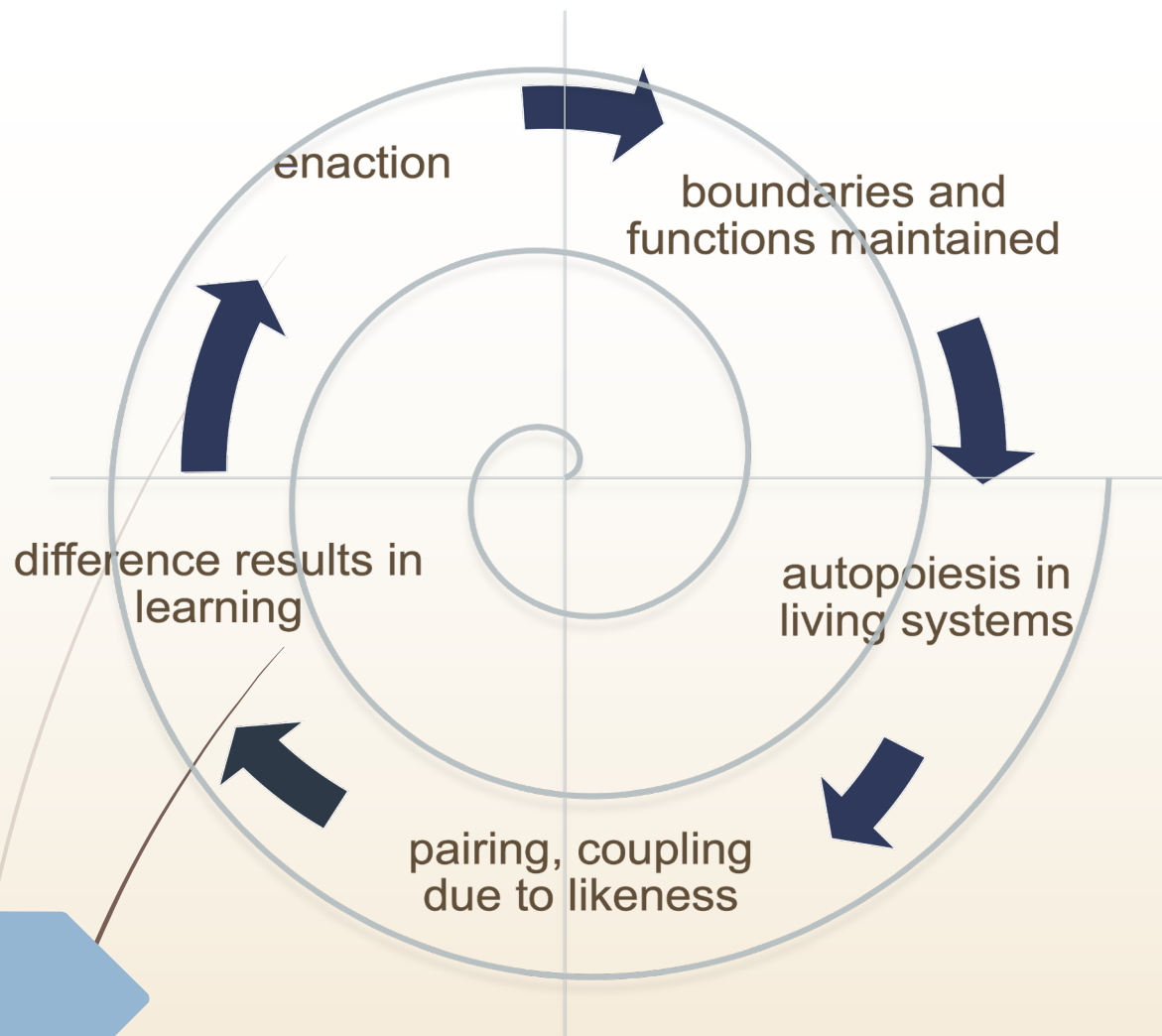
Thompson, 2016, p. xxv

*Not only does an organism change based on inner capacities, such changes are not linear, but a result of the organism's embeddedness in its world, its inner dynamics, its entire milieu, the whole of its world and environment  
(Rees 2019, p.103)*

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# Enactive

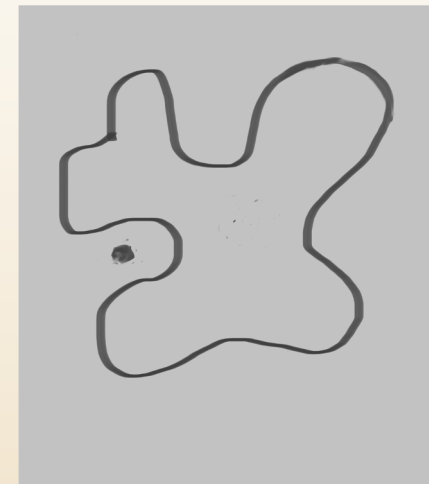




dynamic organic  
learning  
processes

continually occur

at all system  
levels



## Enactive Learning Cycle

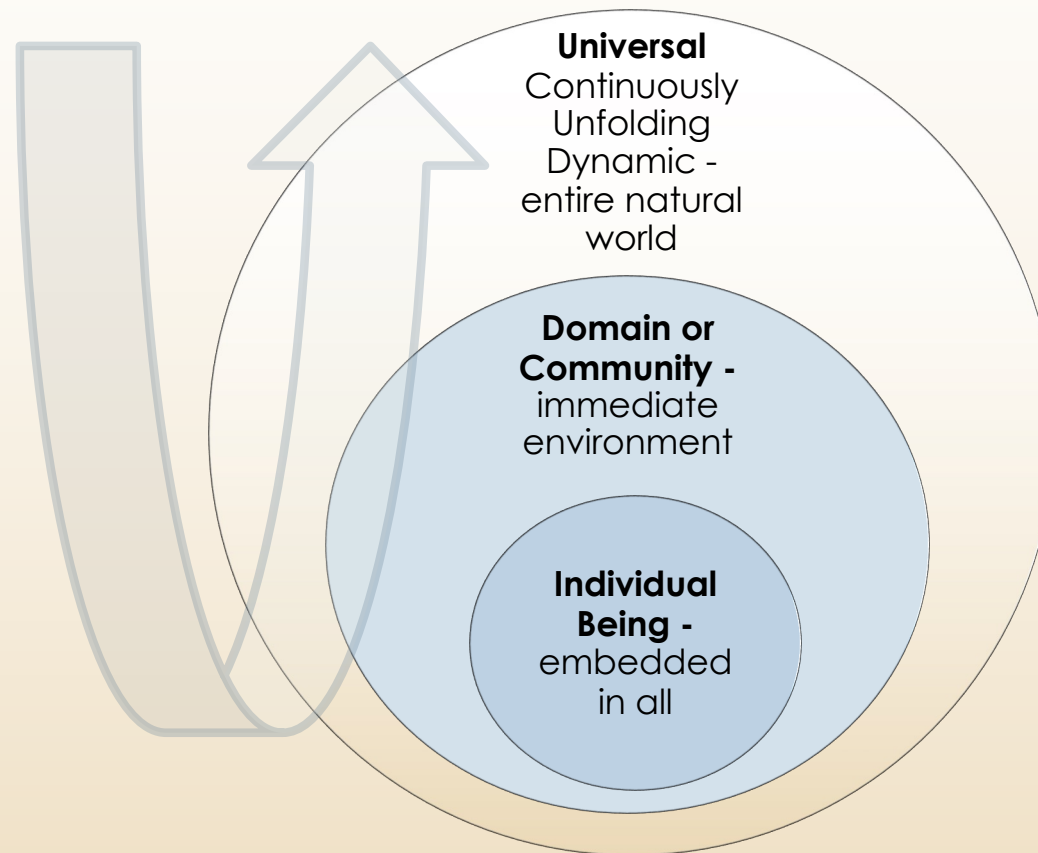
“a default mode network”

Rees 2019

# Multiple System Levels

Human levels may evolve faster than biological processes

Importance of the individual – one with the environment



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## Knowledge through awareness of Enaction

Passive and then active receptivity



# How did I come to this approach

## **Broad question**

Where is the capacity found in current sciences for knowing that occurs as consciousness arises *in* and as body?

## **Coding**

The papers I wrote were coded and used to identify common threads that appeared in my explorations into consciousness arising in the body.



# How did I come to this approach

## **Contributions identified**

Specific to each scientist

## **Integration**

Views integrated through an iterative process

## **Cross domain patterns observed**

Mutually supportive insights were apparent between domains



# A Systemic Theoretical, Interdisciplinary Study

## **Domain Selections**

- Phenomenology
- Theoretical physics
- Theoretical biology
- Microphenomenology
- Human cognitive science
- Early Buddhism
- Contemplative practice
- Creativity studies

## **Primary Sources**

- Husserl (Ferrarello)
- Bohm (Bitbol)
- Maturana & Varela
- Petitmengin
- ateson, Thompson (McAndrews)
- Anālayo (Olendzki, Peacock)
- Generic
- Fritz; Baer; Feldman, et .al.
- (Pritzker, Richard)

## Analysis

**Clustered coded notes under headings of the three levels of science**

Identified observable cross domain patterns

Hypothesized an appropriate generalization for each category

Simplified the observable patterns

Created self-questioning strategies

**Philosophical / Theoretical**  
what is

**Normative**  
what shall or should be  
capable of guiding one's behavior  
When a science becomes a science

**Technological Methodological**  
Access and implementation

Particular instance or  
implementation in any particular  
domain





**Research Levels (Yin)**

**Data gathering,**  
broadest scope  
systemically

**Data gathering**  
direct scientific  
investigations  
**within systems**

**Direct sampling,**  
exploration via  
technological  
applications or  
subsystem and  
analysis of  
scientific norms

**Science Levels (Husserl)**

**Philosophical/Theoretical –**  
what is

**Normative –**what shall or  
what should be – capable  
of guiding one's behavior

**Methodological/  
Technological**  
implementation in  
particular domain, fits  
within theoretical and/or  
suggests a modification in  
the theory

**Approach**

**ethics as ones  
way of being**

**Intentions  
(Bateson)**

Organized at three levels of science

## Analysis

Clustered coded notes under headings of the three levels of science

**Identified observable cross domain patterns**

**Hypothesized an appropriate generalization for each category**

Simplified the observable patterns

Created self-questioning strategies

## Philosophical/Theoretical

### The **Continuous Co-arising of Matter and Mind**

The initial arising of consciousness as mind and matter.  
Common ground of mind and matter from the side of matter.

### **Knowing as Awareness of Experience: An Embodied Approach**

Return to roots in human experience.  
Avoid letting formulae replace experience.  
Honor non-linear thinking.  
Recognizing problem of reification.  
Confusing map for territory.  
Confusing thought for thinking.  
Embodied immanence as scientific.  
Embodied, immanent, but not limited to internal experience.  
Internal experience, 'what it feels like': proprioceptivity.

### **Integral Impact of Personal Perspective**

#### **Space or Emptiness Allows for Change**

Freedom, insubstantiality.  
Freedom and seeing clearly through practices.

#### **Focus on Process Rather than Final Outcomes**

Dynamic cross domain patterns.  
Science as a dynamical discovery process.  
Dynamic and static manifestations.  
Dynamics of emptiness and dependent origination.

### **Holistic/Wholistic**

Constant Change

# Normative

## **Insubstantiality.**

Parameters are flexible.

Outcomes are tentative.

Insights are channeled through perception and thus limited and limiting.

## **Dynamism or dynamic aspects in context.**

Process.

Music as model of process.

## **Primacy of the implicate order and relationship to movement.**

### **Holographic or Toality**

Static elements remain associated with their fluid context and larger systems

Underlying flow, an unfolding process of continuous arising and passing.

Holographic Unfoldment.

Matter as fluid.

## **Fusion, sedimentation and formations.**

Fusion.

Sedimentation.

Formations (saṅkhāra).

## **Causes and conditions: what arises comes to form or content based on context.**

### **Systems pair or couple due to likeness especially related to movement.**

Pairing or coupling.

How pairing or coupling occurs.

### **Learning occurs due to difference.**

How learning occurs through difference.

Formulae: Discovery through limitation of current pattern.

## **Systems as totalities.**

Systems/Relationship/Dynamism

## Methodological/Technological

### Preliminaries

#### **Learning to see what one cannot see.**

Difference between experience and naming experience.

Overview and review.

### **Characteristics of Pre-reflective Consciousness**

#### **Consciousness may first arise undifferentiated from matter.**

Co-arising, not mind arising from matter.

Hyletic data and nāmarūpa.

Subtle awareness of other objects as infant experience.

Subtle experience of other beings as infant experience.

Difference as the lowest level of mental operation.

Transmodal experience.

Expanding the meaning of autopoiesis.

Becoming aware of autopoietic capacity in immediate experience.

Autopoiesis of aggregates, mental factors in general, and elements.

Autopoiesis as passive and active synthesis.

#### **Autopoietic characteristics sufficient for consciousness.**

#### **Dynamic process.**

Expanding one's understanding of flow.

Space or emptiness.

Actual Methodologies or Technologies for Accessing **Unnoticed Consciousness**

Human Experience

Hypothesized an appropriate generalization  
for each category

Philosophical / Theoretical  
**Constant change**

Normative  
**Systems approach**  
**Relationships, relationality**

Technological/Methodological

**Human experience,**  
**especially first-person**  
**experience**

Difference between watching  
movie and being in the movie

<b>Research Levels (Yin)</b>	<b>Science Levels (Husserl)</b>	<b>Approach</b>	<b>ethics as ones way of being</b>	<b>Intentions (Bateson)</b>
<b>Data gathering,</b> broadest scope systemically	<b>Philosophical/Theoretical</b> – what is (approach)	<b>Constant Change impermanence</b>		
<b>Data gathering</b> direct scientific investigations <b>within systems</b>	<b>Normative</b> –what shall or what should be – capable of guiding one's behavior (content)	<b>Systemic Analysis Relationship</b>		
<b>Direct sampling,</b> exploration via technological applications or subsystem and analysis of scientific norms	<b>Methodological/ Technological</b> implementation in particular domain, fits within theoretical and/or suggests a modification in the theory	<b>Human Experience</b>		

Organized at three levels of science

## **Analysis of observable cross domain patterns**

Clustered coded notes under headings of the three levels of science

Identified observable cross domain patterns

Hypothesized an appropriate generalization for each category

**Simplified the observable patterns**

**Created self-questioning strategies**



## Philosophical/Theoretical

A continuous co-arising of matter and mind

Knowing as awareness of experience:

An embodied approach

Integral impact of personal perspective

Insubstantiality, Space or emptiness, has the benefit of making change possible

Focus on process and dynamics rather than outcomes

Holistic

Constant Change

## Philosophical/Theoretical

Do I focus on process rather than final outcomes?

Do I hold concepts loosely?

Am I open to change? To continuous unfolding process?

Am I clinging to a view, a theory, rather than walking the razor's edge, neither falling to one side or the other of dichotomization?

Is there resonance of environment and inner visceral dynamics?

## Normative

Recognizing lawfulness of constant change

Dynamism and dynamic aspects within context

Primacy of the implicate and relationship to movement

Totality

Fusion, sedimentation, and formations

Causes and conditions, form & content based on context

Systems pair/couple due to likeness especially related to movement (difference that movement creates)

Learning occurs due to difference

Systems as totalities

Systems/Relationship/Dynamism

## Normative

Have I incorporated potential insights and further research based on outliers and white noise?

Do I consider systems from their perspective, functioning, and the flexibility of their boundaries and function? At multiple levels?

Do I reset my work into the dynamism and dynamic aspects of the contexts in which they reside? from which I lifted them to do my study?

Do I attend to what is implicit, tacit, emergent?

Systems/Relationship/Dynamism

## Methodological/Technological

### **Characteristics of pre-reflective consciousness:** “default mode”

Consciousness may arise undifferentiated from matter  
Dynamic processes, constant flow  
Enactive

### **Accessing unnoticed consciousness** - awareness of default mode

Receptivity of contemplative processes – opening to arising  
Embodied awareness or proprioceptive knowing  
Noting and epoché  
Phenomenology - epoché, reduction (static, genetic); active and passive analysis  
Microphenomenology – first person experience, interviews, analysis, transmodal experience  
Human science - awareness of difference; dialogue, relational meditation, thinking about thinking  
Satipatthana especially vedanā feeling tone

## Methodological/Technological

Have I (or have I consistently) explored subtle levels of experience (subjective universals) as described in various models?

Transmodal experiences (Petitmengin 2007)

Satipaṭṭhānas (Analayo 2003)

Husserl's active and passive analysis (Husserl 1920-1926/2001)

Differences that make a difference (Bateson 1979/2002)

Can I rest in awareness of the founding stratum, the pre-personal flow of embodied experience?

Can I develop awareness of the arising, stabilizing, decaying, and dissolving of any or all phenomena?

# Ethics in Science Resulting from One's Way of Being

Working with our own awareness possibly through the self-questioning strategies may develop our skills as enactive (ethical) scientists.

What skills are developed through self awareness that impact science?

How does your experience as an enactive scientist, impact ethics of science? tentative

## Ethics in Science Resulting from One's Way of Being

Working with our own awareness possibly through the self-questioning strategies may develop our skills as enactive (ethical) scientists.

Consider how self-questioning on these themes may impact your own work and possibly foster valuable transdisciplinary research.

Are there models of subtle levels of consciousness that you can explore in depth - maybe in a daily investigation to broaden our awareness?

Explore on your own and/or contact me directly. Join our team in exploring collaborative experience, means for doing enactive research, and its potential across and beyond scientific disciplines.



# Ethics in Science Resulting from One's Way of Being

What skills are developed through self awareness that impact science?

- Philosophical – Openness. Perhaps reporting would begin with clear statements about the approach that are as clear as the question and methods.
- Normative – Trust or faith in unfolding insights within relational dynamics, discovering rather than imposing structure, results will include possibilities and wide implications
- Technological – Humility human impact recognized at all three levels – both the benefits and limitations

# Ethics in Science Resulting from One's Way of Being

How does your experience as an enactive scientist, impact ethics of science? The question we are asking now. Tentatively respond.

The impacts may best be viewed in more generalized terms than addressed at separate levels:

- we admit the truth we know is only what we know via experience
- what we know and perceive may not actually match reality
- with awareness we may better be able to recognize, discover, or address blind spots
- experience the critical importance of cooperative processes
- we learn more because we are open to change and voices of others and other
- not trapped by long held beliefs

Most importantly, perhaps we will together create in harmony with the universe, rather than overriding her.



“

Let us a little permit Nature  
to take her own way;  
she better understands  
her own affairs than we

”

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Montaigne (1533-1592)

<b>Research Levels (Yin)</b>	<b>Science Levels (Husserl)</b>	<b>Approach</b>	<b>ethics as one's way of being</b>	<b>Intentions (Bateson)</b>
<b>Data gathering</b> , broadest scope systemically	<b>Philosophical/Theoretical</b> – what is (approach)	<b>Constant Change impermanence</b>	Openness– no unchangeable realities Articulate at beginning	
<b>Data gathering</b> direct scientific investigations <b>within systems</b>	<b>Normative</b> –what shall or what should be – capable of guiding one's behavior (content)	<b>Systemic Analysis Relationship</b>	Trust or faith - - discovering rather than imposing structure, results tentative and wide	
<b>Direct sampling</b> , exploration via technological applications or subsystem and analysis of scientific norms	<b>Methodological/ Technological</b> implementation in particular domain, fits within theoretical and/or suggests a modification in the theory	<b>Human Experience</b>	Humility - fundamental suggestion of Husserl – recognizing human impact at all three levels	

Organized at three levels of science

<b>Research Levels (Yin)</b>	<b>Science Levels (Husserl)</b>	<b>Approach</b>	<b>ethics as one's way of being</b>	<b>Intentions (Bateson)</b>
<b>Data gathering</b> , broadest scope systemically	<b>Philosophical/Theoretical</b> – what is (approach)	<b>Constant Change impermanence</b>	Openness– no unchangeable realities Articulate at beginning	Change one's thinking
<b>Data gathering</b> direct scientific investigations <b>within systems</b>	<b>Normative</b> –what shall or what should be – capable of guiding one's behavior (content)	<b>Systemic Analysis Relationship</b>	Trust or faith - - discovering rather than imposing structure, results tentative and wide	Discover patterns across domains
<b>Direct sampling</b> , exploration via technological applications or subsystem and analysis of scientific norms	<b>Methodological/ Technological</b> implementation in particular domain, fits within theoretical and/or suggests a modification in the theory	<b>Human Experience</b>	Humility - fundamental suggestion of Husserl – recognizing human impact at all three levels	Reveal what is not conscious

## Organized at three levels of science

Seemed to fit my understanding of Bateson's primary intentions

# Thank you

**Mary Rees, PhD**

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[reesmary@gmail.com](mailto:reesmary@gmail.com)

***honoring human  
body knowing***

***connected and  
embedded in the  
universe***

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**Enactive Research**  
**[enactiveresearch.org](http://enactiveresearch.org)**

Annika Lübbert, PhD  
Neurophysiology

Enrico Fucci, PhD  
Neuroscience

Mary Rees, PhD  
Psychology &  
Interdisciplinary Inquiry

Willeke Rietdijk, PhD  
Contemplative  
Phenomenology

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# Contemplative (Aware) potentials

Wynton Marsalis (2008), life, any activity can be like playing jazz :

Adjusting to changes without losing equilibrium

Mastering moments of crisis with clear thinking

Living in the moment and accepting reality instead of trying to force everyone to do things your way

Concentrating on a collective goal even when your conception of the collective doesn't dominate

Knowing how and when to extend your individual energy