

The Cover-Up Model of the Mind

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Based on Theravada and some Mahayana Buddhism (practice & theory)
providing a snapshot of my understanding and non-understanding

Overview

I Theory

II Path

III Practice & Model

IV Foundations

I.1 Psychotherapy and Buddhism

Psychotherapy | Buddhist path

Both directed to mental improvement

Differences

swimming	diving	(swimming first)
daily life	life and death	
ego	non-ego	

I.2 Different approaches to mind

Different goals

- Psychotherapy healing mind (better weather)
- Buddhist path purifying mind (better climate)
- Neurophysiology understanding mind (via science)

Understanding mind does not bring inner peace

Neuroscience doesn't yet understand mind

I.3 Different approaches to mind

Psychotherapy

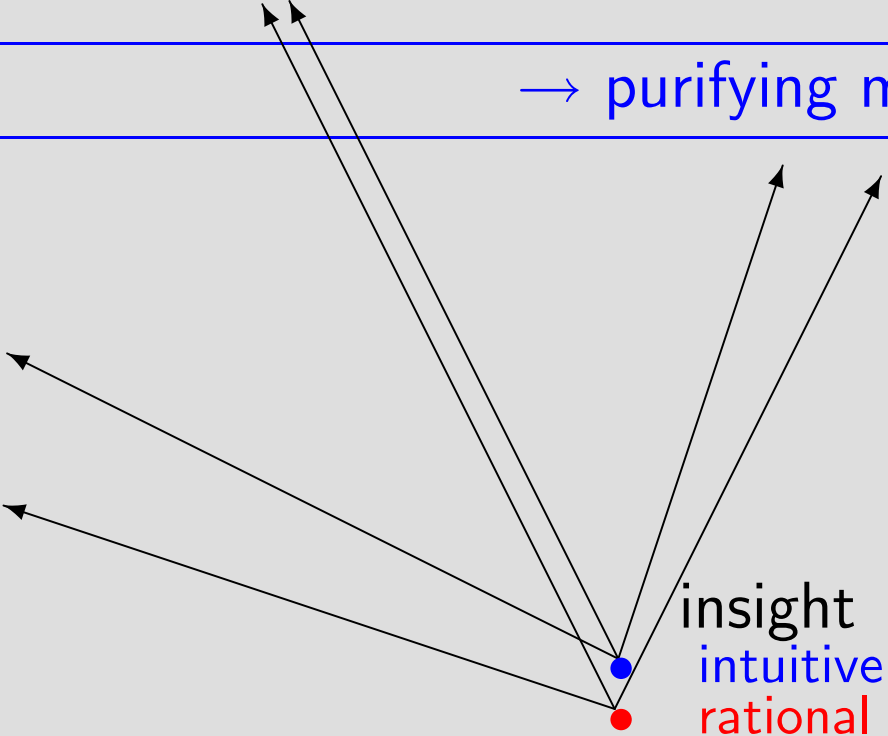
→ healing mind

Buddhist path

→ purifying mind

Neurophysiology

→ understanding mind



- ● Healed mind is a necessary condition for purified mind
- ● Rational thought is useful for healing and purifying mind
- ● Intuition is useful for neurophysiology

I.4 Methodology

Introspection as a tool for psychology (Wundt 1879) was not successful

- Interferes with the mind
 - Not objective
- ⇒ only study behaviour

Trained introspection may be an inspiration for neurophysiology

Arguments

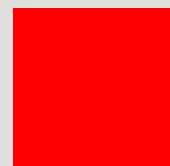
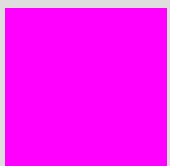
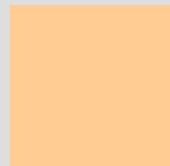
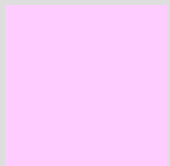
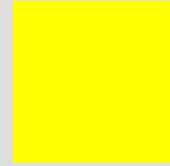
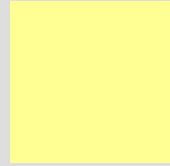
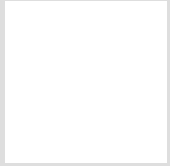
1. Mathematics is based on [trained] introspection (Husserl, Gödel)
2. The controversy about color perception (“Newton vs Goethe”)

Physicists: colors are 1D, can be described by one number

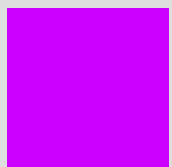
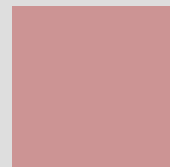
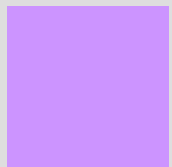
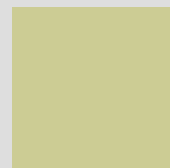
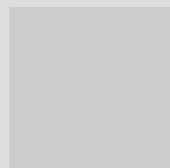
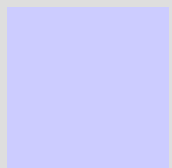
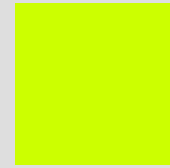
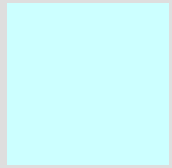
Phenomenologists: colors are 3D

Goethe did interesting experiments with perception

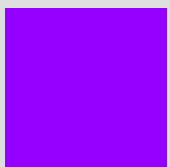
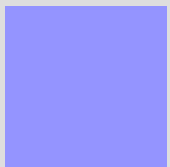
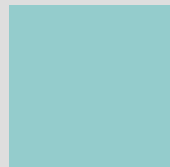
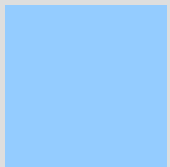
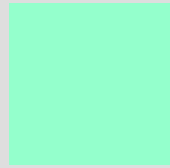
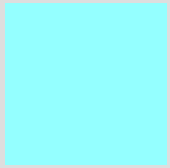
I.5 Colors I



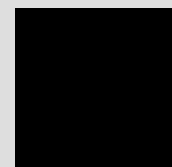
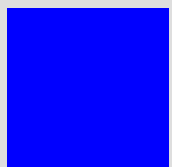
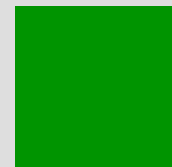
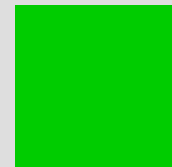
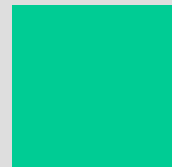
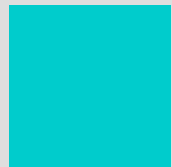
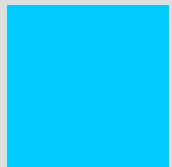
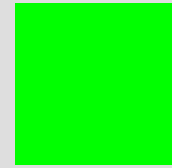
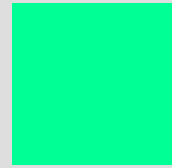
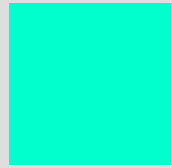
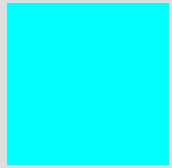
I.6 Colors II



I.7 Colors III



I.8 Colors IV



I.9 Methodology

The color controversy resolved (Young and Helmholtz)

The retina has rods and cones for vision

- rods for black and white vision
- cones for colorvision

There are **three** kinds of cone-cells (b-, g-, r-type)

The sensitivity for the wavelength is different

One wave-length creates a **triplet** of reactions in these three cells

This was later confirmed and gave rise to a multi-10⁹\$ industry

Moral:

Both phenomenology and science are important and should interact

I.10 Abhidhamma: “atoms”

Consciousness is not continuous but discrete

It consists of a linear sequence of short mind moments: cittas

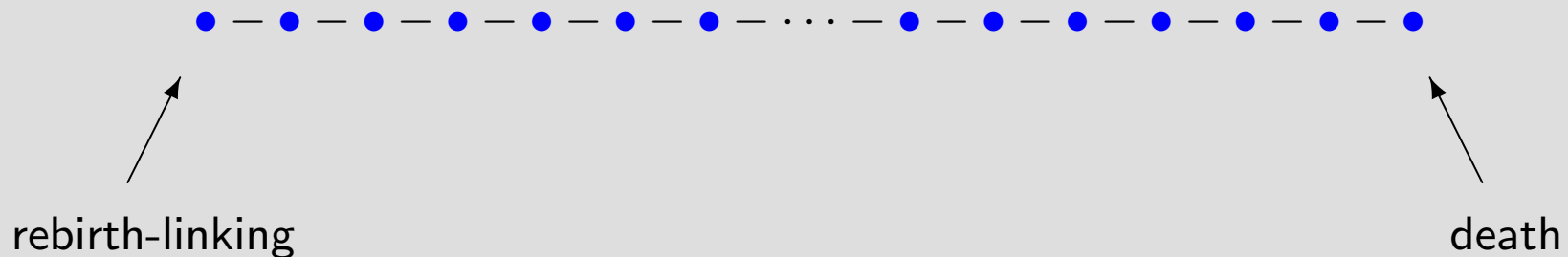
Each citta (●) has an arising, presence and dissolution

Each citta is directed to an ‘object’ (coming via the senses)

There are 89 types of cittas (12 unwholesome; 21 wholesome; 56 indeterminate)

The consciousness of a person consists of a linear sequence of cittas

Life-line



Type and object of the birth and death citta are the same

Cittas influence future cittas (type and object): statistical law of karma

I.11 Abhidhamma “elementary particles”

A citta consists of several factors: cetasikas

There are 52 cetasikas

	unwholesome	variable	beautiful
universal	delusion restlessness shamelessness 4	input feeling light concentration 7	mindfulness non-greed non-hatred 19
occasional	greed hatred sloth 10	energy higher concentration rapture 6	compassion shared joy non-delusion 6

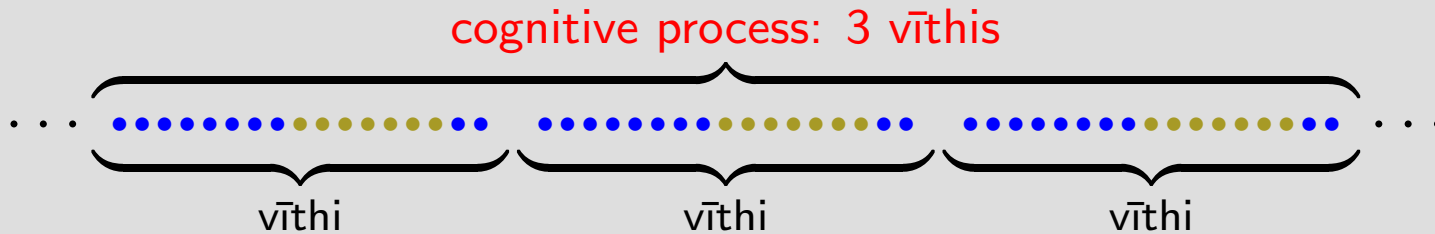
Meditation: developing occasional variable and beautiful cetasikas

I.12 Abhidhamma “molecules”

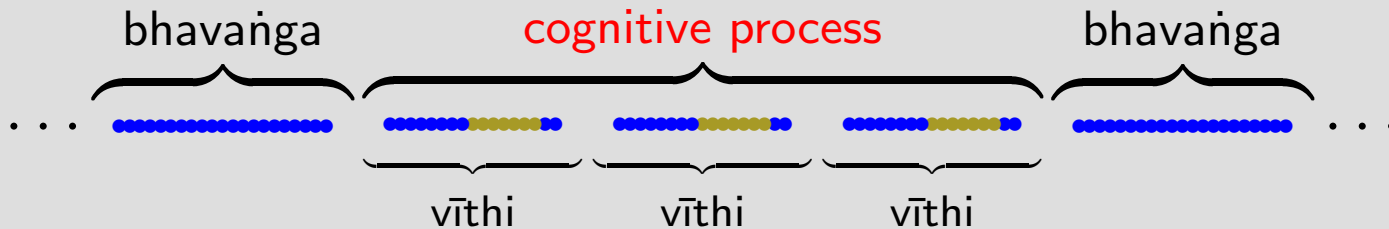
Cognitive-emotional unit



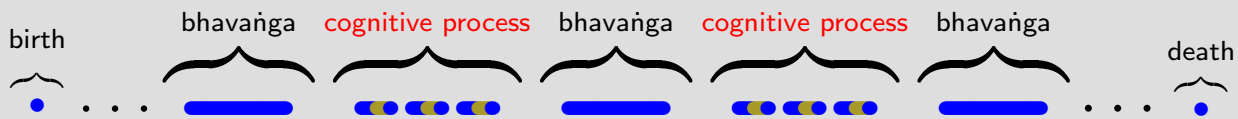
Cognition and emotion



Baseline (bhavaṅga: sequence of birth cittas)



Lifepath



I.13 Abhidhamma: Objects

Classification of objects

	conditioned (<i>sankhata</i>)	unconditioned (<i>asankhata</i>)
absolute (<i>paramattha</i>)	matter mind (<i>citta</i> , <i>cetasika</i>)	nibbana •
conceptual (<i>paññatti</i>)	'existing' concepts 'non-existing' concepts	mathematical concepts

A citta can observe matter as object

A citta can also observe a different citta as object

A citta can observe a cetasika as object

A citta can observe nibbana as object

Nibbana may be the power that gives us the qualia

It is pure consciousness, without an object

I.14 Abhidhamma “levels”

“Elementary particles”
“atoms”

cetasikas
cittas



absolute

“molecules”

vīthis
cognitive process



conceptual

Meditation is only concerned with **absolute** things

Psychotherapy is often concerned with **conceptual** things

I.15 Abhidhamma “purification”

Feeling is a universal: always present; three forms (+, −, 0)

	body	mind
+	sukha	somanassa
−	dukkha	domanassa
0	upekkhā	

The problem is with the unwholesome occasionals:

lobha, dosa, moha: greed, hatred and ignorance

Greed wanting something, but one does not have it

Hatred not wanting something, but one does have it

Ignorance wanting to preserve (avoid) something that one has('nt)

Wanting to control the next cittas

The aim is the eradication of these

I.16 The 89 types of cittas

plane\kind	Karma		Indeterminate		#
	Unwholsome	Wholesome	Resultant	Functional	
Sense	12	8	23	11	54
Fine-Material	0	5	5	5	15
Immaterial	0	4	4	4	12
Supramundane	0	4	4	0	8
#	12	21	36	20	89

Nibbana is object of the four supramundane cittas with karma: magga

The karmic effect is that it permanently eradicates some of the cetāsikas

First wrong view, then greed, hatred and ignorance

One becomes respectively

- streamwinner
- once-returner
- non-returner
- arahant

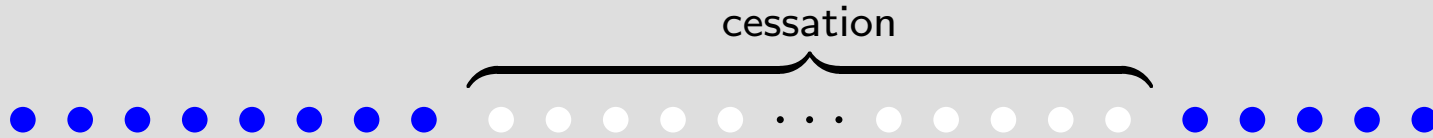
I.17 Extended lifelines

Samsara



D: death, B: birth; without beginning, possibly without an end, with suffering

Nirodha (possible for non-returner or arahant during lifetime)



Parinibbana (after death of arahant)



I Summary

- Three levels of mind: **cetasikas**, **cittas**, **vīthis**

- Law of (statistical) cause and effect (karma)

- Improving consciousness

Psychotherapy at **cognitive & emotional level** **vīthis**

Vipassana meditation at a more **basic level** **cittas & cetasikas**

- First necessary for second

- Nibbana is like the light that makes consciousness 'alive'

- Observing nibbana makes karma defunct

II.1 Discipline, concentration & insight

Our capacity of concentration, mindfulness can be **trained**

discipline \mapsto concentration \mapsto insight

Buddhagosa (\pm 430 A.D.): *The path of purification* (888 pp.)

chs. 1-2	Discipline
chs. 3-12	Concentration
chs. 13-23	Insight and its use

Basic exercises:

sitting	observing breathing
walking	observing foortsteps

II.2 Mental development

Concentrate on observing breathing (meditation object)

If mind wanders, then come back to meditation object

If feelings, thoughts or conditionings are strong,
then switch to them as meditation object

Right mindfulness: attention with distance

*If there is pain,
do not consider yourself as someone that has pain,
but as someone that sees pain*

This should be practised all the time (one uses qualia)

A process of non-interfering observation, disidentification

(Husserl: *epoche*; Varela: *bracketing*; Teasdale: *meta-awareness*)

'O, there is pain', 'O, there is sadness' Later language-less

II.3 The 5 Hindrances and 5 Faculties

5 hindrances	5 helpers
doubt	confidence
sloth	energy
restlessness	concentration
hatred	mindfulness
greed	analysis

Most are cetasikas

Discipline, concentration and insight are to be developed in parallel

II.4 Defilement by mystical experiences

Strong pain without minding it

Also beyond desire

Strong concentration

Effortless mindfulness

Rapture & bliss

Atman = Brahman

Fine-material and immaterial cittas

Teacher: *Also dis-identify from mystical experiences*

Student: *May we not enjoy these for some moments?*

Teacher: *It is a waste of time!*

- One does not see everything
- One becomes dependent on the concentration

II.5 The three characteristics

After diligent practise the meditator comes to see

the three fundamental characteristics

non-permanence	chaos, flux
suffering	nausea, unbearable
non-self	beyond control

Contact with separate cittas or vīthis

Emergency exit: strong feeling (**anxiety, depression, desire**)

Proper exit: development of more mindfulness

Continued practise: development of **Equanimity, Calm, Bliss**

this in the proximity of the three characteristics

II.6 Surrender

Mindfulness is of non-interfering nature: just observing

The only interference allowed is changing the object of meditation

The meditator surrenders

When time is ripe, mindfulness becomes automatic and the three characteristics disappear

This to a certain degree:
the purification work has to be repeated 3 more times

One becomes respectively

Streamwinner	free from insecurity, belief in self, superstition
Once returner	dilution of fear and desire
Non-returner	free from fear and desire
Arahant (work finished)	free from pride, sleepiness, restlessness, attachment to existence, ignorance

II Summary

- Discipline, concentration and insight can be developed using mainly concentration, effort and mindfulness

(First at conceptual level, later at absolute level)

- Mystical experiences are not providing freedom
- Developed insight with surrendering does provide freedom

III.1 Practice

Observing body (consciousness through 5 physical senses)

Observing mind (consciousness through mind sense)

Observing influence between body and mind

[Developing super- and sublime consciousness]

Observing three characteristics

Observing disappearance

Observing fear, depression, nausea

Observing desire for freedom

Developing equanimity, calm, rapture

Surrendering

Cessation of three fundamental characteristics

III.2 The cover-up model

Axiom 1. In our potential consciousness there is a process with 3 characteristics:

non-permanence	chaos, flux
suffering	nausea, unbearable
non-self	beyond control

In daily life seeing the 3 is avoided at all costs

It may be the cause of **war**, of **inhumane acts**

Axiom 2. Usually the process is hidden and even unknown (ignorance)

At any price the process is covered up by feelings (and thoughts)

Addiction to these feelings (and thoughts) and corresponding behavior

Axiom 3. There is a proper medicine:

the development of mindfulness that purifies the process

III.3 Protection by mindfulness

Active contents of consciousness
(cittas with karma)



Conditioning

After a citta with karma conditioning cannot be prevented

However the citta with karma can be prevented

Feeling

← mindfulness



Feeling with craving



Conditioning

III.4 Power of mindfulness

Mindfulness is sometimes too late: conditioning arises

Mindfulness on conditioning makes it bearable

Next time mindfulness is on time

Mindfulness acts as 'chemical analyzer'

Meditation is both reductionistic and holistic

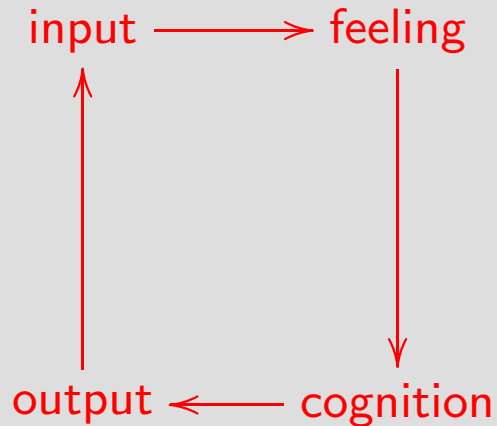
Use karma to dissolve karma

A Buddha does this without the help of others

A *patryeka* (lesser) Buddha also, but cannot teach

A trainee does it with the help of a teacher

III.5 Dependent origination (conditioning)



'Karma'

Hypothesis

One act of mindfulness per cycle:	streamwinner
Two acts of mindfulness per cycle:	once returner
Three acts of mindfulness per cycle:	non-returner
Four acts of mindfulness per cycle:	arahant

III Summary

- We like to be in control
- The citta dance (3 characteristics!) is beyond our capacity
- We hide its view by cognitions and emotions
- We become addicted to this symptomatic act
- Mindfulness can set us free

IV.1 Neurophysiological hypotheses and evidence

1. The *powerbrain*¹ causes the process (3 characteristics).
2. *Volume transmission*² of neuromessengers causes the cover-up.
3. EEG synchronisation (high γ -band) causes the purification.

¹ Cognition is coded as a synchronously firing subset of our neurons (von der Malsburg). Observing the action of the underlying operating system is the process.

² Next to synaptic transmission (like a telephone relais), there is volume transmission (like a radio broadcast).

IV.2 The operating system of the mind: the powerbrain

A data processing unit needs an operating system

The letter 'A' is caused by dancing electrons within this box

von der Malburg hypothesized that our thoughts are represented by a **set** of simultaneously firing neurons

Each such set gives rise to the next set or to feelings and behaviour

This transition may be the process with its three characteristics

IV.3 The cover-up

During the 'mystical' states one is beyond suffering

It still is there, but does no longer matter

Opioids in the ventricle have a similar effect

Hypothesis: the cover-up works via volume transmission

Cellular research: many liquor contacting neurons contain

- met-enkephalin Positive/Neutral feelings
- β -endorphin
- 1,2-endomorphin
- urocortin Negative feelings
- CRH

This happens just streamupwards from the aquaduct

IV.4 Purification

Uttering the word 'snob' to someone is insulting

Right now I did not insult anyone: the word was frozen, not uttered

The right mindfulness has the same freezing (bracketing) effect

Ordinary consciousness is no longer part of it

Hypothesis (initial evidence exists)

consciousness \Leftrightarrow γ -synchronisation (... Crick ...)

\updownarrow consciousness \Leftrightarrow \updownarrow γ -synchronisation (Lutz)

mindfulness \Leftrightarrow \uparrow consciousness (phenomenology)

mindfulness \Leftrightarrow high γ -synchronisation in EEG

IV.5 Psychological Hypotheses

Axiom 1. Our consciousness is discrete, consisting of atomic acts of consciousness with a beginning, middle and end

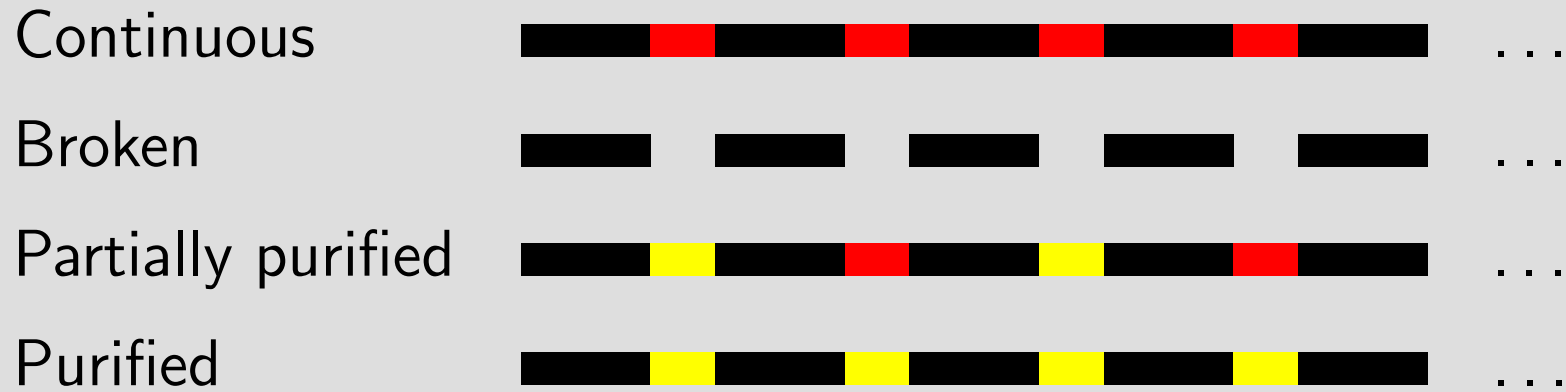
Not like one pictureframe of a movie

Axiom 2. To create a continuous consciousness we need 'glue'
This makes us addicted to our ideas and behaviour

Axiom 3. Mindfulness can replace the glue and sets us free

IV.6 Spiritual development

Forms of consciousness



 feeling & cognition

 mindfulness

IV.7 Spiritual crisis vs dissociation

Broken consciousness in vipassana similar to that in psychopathology?

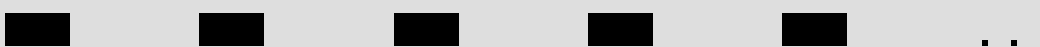
And during drug use?

Buddhagosa (430 AD): *Path of Purification*

... impermanence does not become apparent because it is concealed by continuity. The characteristic of suffering does not become apparent because it is concealed by the postures

... when continuity [of consciousness] gets disrupted by discerning-because raise and fall [breathing meditation], impermanence becomes apparent in its true nature. When the postures are exposed, ... the characteristic of pain becomes apparent in its true nature.

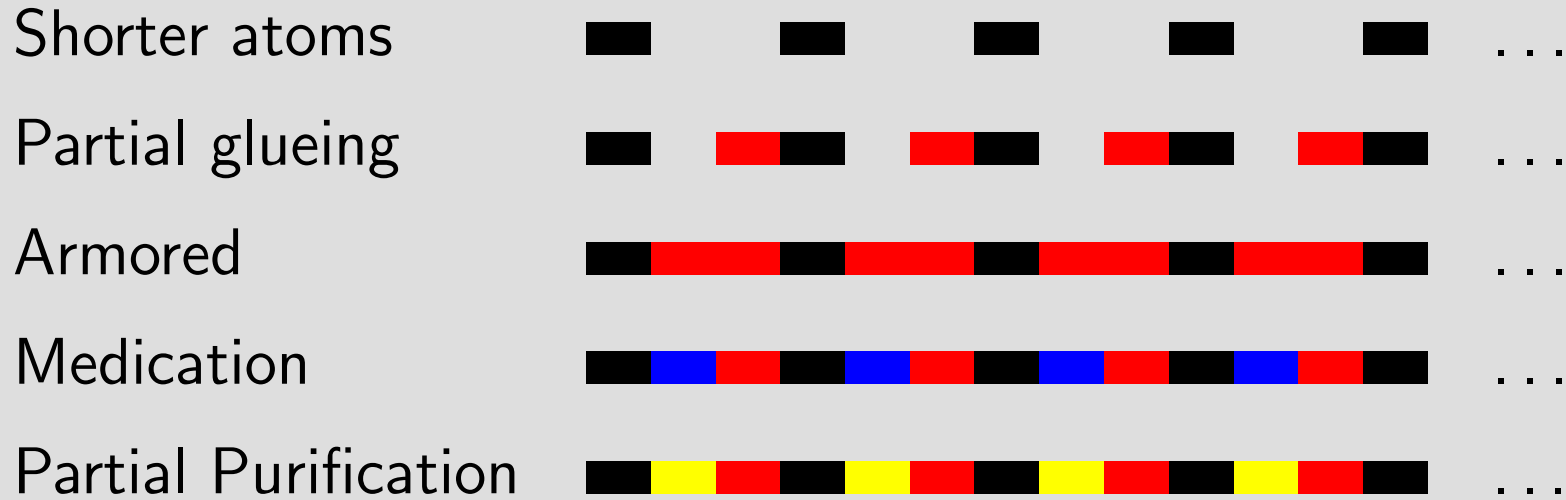
Broken 

Shortened 

Lehmann describes the second pattern in psychopathology

IV.8 Forms of coping

Pathological dissociation (speculative)



There are many questions here

■ feeling & cognition

■ mindfulness

■ medication

IV.9 Types of consciousness (speculative)

in love 

mystical 

depressed 


pleasant 

neutral 

unpleasant 

advanced yogi 

yogi 

burn-out 



Conclusion

Main message

- Consciousness is discrete, consisting of meaningless fluxes
- The mechanism that builds continuous consciousness is addictive
- There is a way out, by developing mindfulness
- Mindfulness is capable to take over

Now the floor is to neurophysiology:

- Does the process exist and how does it work?
- Does the cover-up exists and how does it work?
- How does mindfulness work?

and to psychotherapy:

- Can mindfulness be used for all forms of mental distress?

Postscript

“Thou dwellers of the great monastery:

*work with confidence, understanding, effort, concentration
and above all mindfulness.*

At first restrain your senses and stay with their input as much as possible.

Make a mental note if your consciousness is pulled elsewhere.

This eventually will set you free and your sensory restraint has served its purpose.

Be aware of two pitfalls.

Too much concentration may give apparent freedom; but you will fall back.

Secondly, it is not you who can finish the work.

Start with your desire to be unconditioned.

At some point you will see that it reaches nowhere.

Then let discipline take over and surrender with attention.

Do not expect anything and the work will be over soon:

bliss of Nibbana becomes permanently accessible.

In this life, you may use it for the benefit of all living beings.”

`www.cs.ru.nl/~henk`

Klik op “otherpapers”

Coverup_model (deze slides)

Buddhist Phenomenology I, II

The ancient theory of mind

Reflection and its use