

Mysticism & Beyond  
reconditioning Mind-States

Henk Barendregt

L.E.J. Brouwer Instituut  
Faculty of Science  
Radboud Universiteit  
Nijmegen, The Netherlands

Buddhist  
religion

Buddhist

~~religion~~ philosophy

Buddhist

~~religion~~ [philosophy] psychology (theoretical & practical)

Preferring Lao Tse and Buddha (virtue moral) over Confucius (duty moral)



input (seeing)                    ⇨  
liking (beauty)                    ⇨  
desiring (wanting to control)    ⇨  
acting

*Worse than wine or opium  
is the venom in your green eyes  
that makes me fall into a deep abyss*

Baudelaire

## Buddhist

psychology     $\mapsto$     religion  
                   $\mapsto$     philosophy  
                   $\mapsto$     clinical interventions  
                   $\mapsto$     neuro-science

Goal    conditioning    [unicellular organism; insect; monkey]  
         reconditioning [higher insects (evolution)]  
         reconditioning [homo sapiens (meditation)]

Why?    decrease suffering  
         raise quality of life  
         move towards triple peace [w. oneself, others & world]

Basis    trained introspection via insight meditation  
         color theory of Goethe extremely successful (multi-G\$)

Object    what we see, hear, feel, smell, taste, or think

State    how we do this with e.g.

flexibility, compassion, concentration, greed, hatred, restlessness

states can be positive, neutral, negative

Mind-states make the difference whether we

design    the Taj Mahal

this    Aria & variations in the Italian style

relativity theory

commit    violence (others, in the family, ourselves)

cause    a crime

the financial crisis

a world-war

Turing machine:     $\text{Input} \times \text{State} \mapsto \text{Action} \times \text{State}$

Human mind:    idem (my interpretation of the abhidhamma/abhidharma)

Many people focus on optimizing the objects

One also can focus on optimizing states

Two types of meditation:

concentration meditation    ↑ positive states    mystical states

insight meditation    ↓ negative states    deconditioning

This needs to be done together recursively

Needs preparation and care, like an expedition

discipline  $\mapsto$  concentration  $\mapsto$  insight

Based on

1. texts and their interpretation
2. oral tradition ( $\mapsto$  confidence, motivation)
3. *personal experience*

Ten/thirty day intensive retreats

discipline  $\mapsto$  concentration  $\mapsto$  insight

Sensory deprivation: no talking, no eye contact

Pay attention to sensory input, notably the breathing

When disturbance comes, e.g. thoughts, say 'thinking'

This is *mindfulness*: meta-awareness with some distance

When the legs hurt, say 'pain'

Disentangle pain:  $\text{pain} = \text{pure pain} + \text{reaction against it}$

Disentangle: input, feeling, states, actions

Being bored: make boredom part of meditation

Observing consciousness as a closed system



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

Strong pain without minding it  
Also beyond desire  
Strong concentration  
Effortless mindfulness  
Rapture & bliss

opioids?



In some traditions: identity with God (possibly with erotic flavour)

In insight meditation: high form of concentration and neutral feeling

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

After diligent practise the meditator comes to see

*the three fundamental characteristics*

impermanence	mental storm	chaos
suffering	'nausea'	Angst
non-self	beyond control	dissociation

Emergency exit: strong feelings (**anxiety, paranoia, depression**)

This is the reason behind the Buddhist view on ego

One cannot say it exists

One cannot say it does not exist

It is both the case that it exists and not exists

It is neither the case that it exists and not exists

} 'tetra lemma'

Ego exists as a *process* not as a reified 'thing'; 'agency' is lost

## The essential characteristic of existing

Drug User	<i>infinite turbulence, lightning for microbes</i> (Michaux)
Patient	<i>as if I'm a computer going out of hand; alive but non-existent</i>
Existentialist	<i>nausea</i> (Sartre), <i>das Grosse</i> (Rilke)
Mystic	<i>dark night of the soul</i> (St. John of the Cross); <i>the abyss of the mind</i>
Carl Jung	<i>One does not get enlightened by imagening beautiful light, but by looking to the darkness within</i>
Meditator	<i>worse than dying; utter desperation</i>
Abhidhamma	<i>impermanence, suffering, selflessness</i>

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Sensual world    *lux, calme, volupté* (Baudelaire)

impermanence    (chaos)                      vs    calme

                         suffering    (unbearable)    vs    volupté

                         selflessness    (no control)    vs    lux

Hiding the three characteristics with

objects, feeling, thinking, or acting

This has a lot of side-effects:

we become addicted to our habits

or to drugs (medical or recreational)

Proper exit: development of more mindfulness

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

this in the proximity of the three characteristics

One learns not to mind them, even if they still cause some fear

Next goal: complete domestication of the three characteritics

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 venom in the three characteristics disappears

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

1. free from **insecurity, belief in self, superstition**
2. dilution of fear and desire
3. free from **fear** and **desire**
4. free from **pride, sleepiness, restlessness,**  
**attachment to existence, ignorance**

(Theravada) Decondition first, then compassion; (Vajrayana) conversely

## Artist's impression 1. Fulfilled love

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L'invitation au voyage

*Mon enfant, ma soeur,  
Songe à la douceur  
D'aller là-bas vivre ensemble!  
Aimer à loisir,  
Aimer et mourir  
Au pays qui te ressemble!  
Les soleils mouillés  
De ces ciels brouillés  
Pour mon esprit ont les charmes  
Si mystérieux  
De tes traitres yeux,  
Brillant à travers leurs larmes.*

*Là, tout n'est qu'ordre et beauté,  
Luxe, calme et volupté.*

Invitation to the Voyage

My child, my sister,  
have a sweet dream  
Of living together there!  
Of loving at will,  
Of loving till death,  
In the land that is like you!  
The misty suns  
Of those angry skies  
Have for my spirit the charms,  
So mysterious,  
Of your treacherous eyes,  
Shining brightly through their tears.

There all is order and beauty  
Luxury, peace, and voluptuousness.

Charles Baudelaire

Music: Duparc ( *L'invitation au voyage* from *Chansons* )



## Artist's impression 2. Broken love

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### *La mort de l'amour (fragment)*

...

*Le vent roulait les feuilles mortes; mes pensées  
Roulaient comme les feuilles mortes, dans la nuit.  
Jamais si doucement au ciel noir n'avaient lui  
Les milles roses d'or d'où tombent les rosées.*

*Une danse effrayante, et les feuilles froissées,  
Et qui rendaient un son métallique, valsaient,  
Semblaient gémir sous les étoiles, et disaient  
L'inexprimable horreur des amours trépassées.*

...

*Maurice Bouchor*

### *The death of love*

...

*The wind rolled the dead leaves; my thoughts  
rolled like the dead leaves, in the night.  
Never had the thousands of golden roses, from which  
fall the dews, sparkled so softly in the black sky.*

*A terrifying dance, and the crumpled leaves  
which gave out a metallic sound, waltzed,  
seemed to moan beneath the stars, and told of  
the inexpressible horror of the perished loves.*

...

Music: Chausson ( *La mort de l'amour* from *Poème de l'amour et de la mère* )

## Artist's Impression 3. Chaos beyond control

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Drawing: Marianne Kalsbeek

Music: Boulez ( *Tombeau* from *Pli selon pli* )



## Artist's Impression 4. Purified consciousness

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Seurat: Un dimanche après-midi à l'Île de la Grande Jatte

Music: Ravel ( *Lever du jour* from *Daphnis et Chloé* )

Main thesis in physics (Feynman):

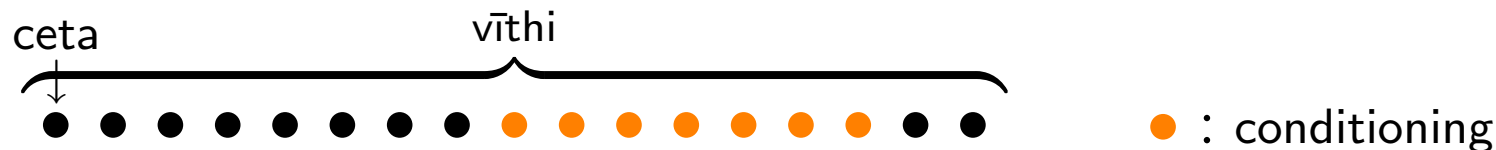
Matter is not continuous, but atomic

Main thesis of the Abhidhamma:

Consciousness is not continuous, but discrete

acting on three levels (in physics: molecules, atoms, elem. particles)

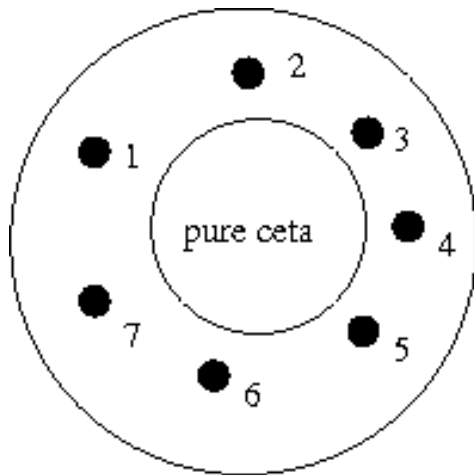
Cetas	'mental atoms'	existing in time
Cetasikas	'mental elementary particles'	acting in parallel
Vīthis	'mental molecules'	acting in a serial way



On all three levels consciousness is discrete



A ceta consists of **pure ceta** and mental factors (*cetasikas*)



- |    |                 |                            |
|----|-----------------|----------------------------|
| 1. | Cooperation     | (synchronization)          |
| 2. | Attention       | (choosing input)           |
| 3. | Contact         | (obtaining input)          |
| 4. | One-pointedness | (focus)                    |
| 5. | Feeling         | (value judgment)           |
| 6. | Perception      | (rudimentary distinctions) |
| 7. | Volition        | (motivation)               |

parallel input



sequence of chords

The minimal ceta consisting of pure ceta with the universal neutral cetasikas

The cetasikas act synchronously with the ceta

**Pure ceta** gives 'awareness', the qualia

Dennett	not necessary
Stapp	explainable in quantum physics
Chalmers	explainable in extend physics
Hut	treated axiomatically

The ceta types are being determined by the cetasikas:

There are 52 cetasikas (14 **unwholesome**; 13 neutral and 25 **beautiful**)

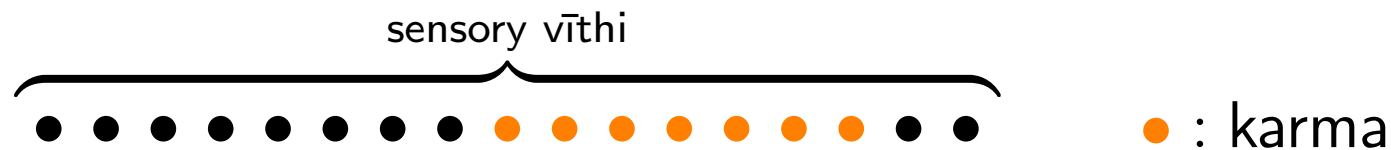
Examples

unwholesome	greed, hatred, attachment
neutral	concentration, bliss
beautiful	mindfulness, compassion

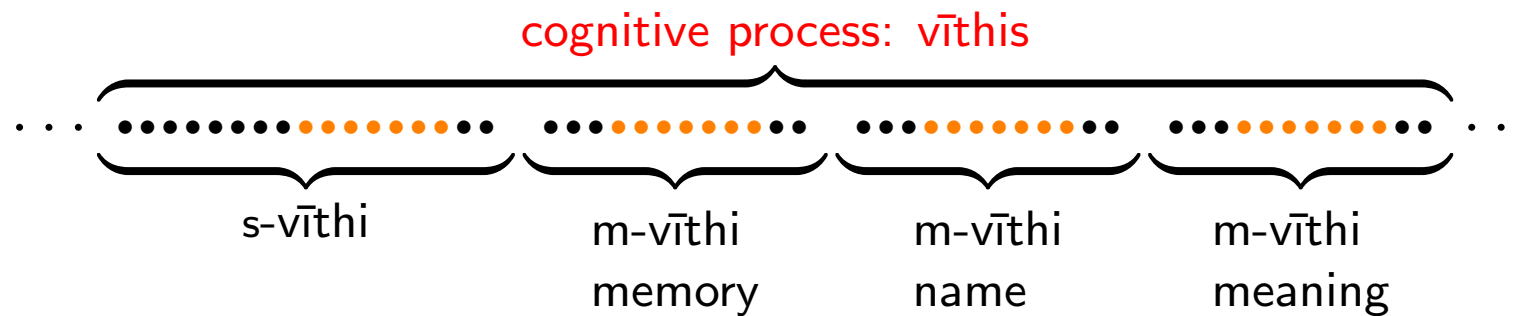
	<b>unwholesome</b>	neutral	<b>beautiful</b>
universal	<b>ignorance</b> <b>restlessness</b> <b>shamelessness</b> 4	input 'feeling' concentration 7	<b>mindfulness</b> <b>detachment</b> <b>non-hatred</b> 19
occasional	<b>attachment</b> <b>hatred</b> <b>sleepiness</b> 10	energy stronger concentration ecstasy 6	<b>compassion</b> <b>shared joy</b> <b>wisdom</b> 6

Meditation: development of neutral and **beautiful** cetasikas, avoiding **unwholesome** ones

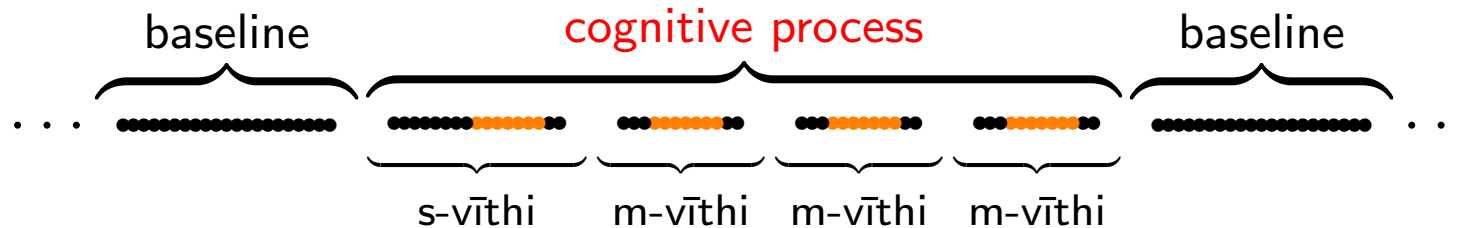
## Cognitive-emotional unit



## Cognition and emotion



## Baseline (sequence of birth cetās)



## Life-path



The object and type of a ceta play a role like the 'configuration' of a Turing machine: present tape-content and state

The law of karma is like the transition table of the Turing machine  
present type and content of a ceta determine future ones

The model mixes the Simon-Newell and the connectionist approach to AI: discrete rulebased & connectionist

Turing-machine, with transition rules determined by a neural network



Process      brain is discrete and deterministic

Cover-up      Volume transmission

Purification      MBSR-MBCT

Lehmann distinguishes mental atoms in multichannel EEG maps

There are 4 types of atoms, each of about 100ms

In schizophrenics: shorter duration and permuted order

In meditators longer duration

For the mechanism of moods to cover-up the chaos  
volume transmission (Nieuwenhuys) is a good implementation

Moreover, strong concentration ( $\mapsto$  one doesn't mind strong pain),  
has similar effects as putting opioids in the liquor

Compatible with volume transmission through the liquor

In fact opioid and stress-hormone cells are shown to contact the liquor

Calle et al. opioids in the brain electro-microscopy seems to indicate exocytosis

Other evidence: Miyan, Nabiyouni & Zendah (2002); Sowards & Sowards (2003)

Development of the brain: a vital role for cerebrospinal fluid Can J Physiol Pharmacol. 2003 Apr;81(4):317-28.

Veening-Barendregt: Brain states regulated by neuropeptides via the flowing cerebrospinal fluid? Accepted in CSF research

Mindfulness-Based Stress Reduction (MBSR) developed by Kabat-Zinn  
is used in many hospitals world-wide  
Is adopted by Cognitive Psychotherapy (MBCT) E.g. at ICCP05

Mindfulness: meta-awareness

‘O, there is desire’

$$\begin{aligned} \frac{\text{mindfulness}}{\text{consciousness}} &= \frac{\text{DNA}}{\text{protein}} = \frac{\text{computer program}}{\text{computable function}} \\ &= \frac{\text{observing}}{\text{reacting}} \end{aligned}$$

Using mindfulness one can get close to the feeling/thought/emotion  
without getting sucked away by it

**Mindfulness is related to attention, equanimity, flexibility, memory**

Paul van den Hurk, Stephen Whitmarsh, Yowon Choi

1. **Greater efficiency (i.e. chance of being correct if equally fast) in attentional processing (ANT)**  
Orienting attention better ( $p < 0.05$ )
2. M-meditation related to reduced reactivity (increased equanimity) at reflexive level; evidence from a visual-auditory startle experiment
3. Second component of mindfulness (i.e. general attentional processing, openness & acceptance) related to clinical improvement
4. M-meditation related to increase in openness and decrease in neuroticism
5. M-meditation associated to a more positive emotional bias
6. Meditators have thicker sensory-motor cortex.
7. Mindfulness meditation leads to greater happiness in all three measures: Self, Informant, and Video.
8. Long term mindfulness meditators do not differ in Self or Informant measured happiness, but do differ in Video ratings: long term meditators looked happier significantly.

**Heleen Slagter et. al.**

**Less attentional blink after a 3 month M-meditation retreat + EEG explaining why**

## Summary

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We have a brain that acts discretely and in a deterministic fashion

In our mind we can see similar activity

Our feeling of agency wants to stop it but cannot: strong resistance

Often the resulting existential fear is treated symptomatically

As side effect one becomes addicted to our behaviour

Combined concentration and mindfulness can domesticate this fear

This sets us free