

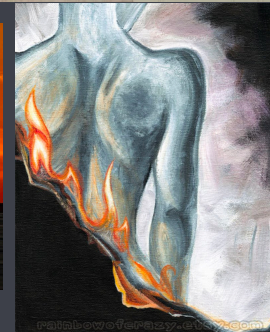
Intermediate
& Advanced Level

Embodied ACT processes for pain & trauma

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ACBS Fellow, trainer and president of the Swedish ACBS
Founder and CEO of ACT Institutet Sweden
Karolinska Institutet, Dept of Physiotherapy
SWEDEN

What is the relationship between Pain and lifestyle, nervous system, health and wellbeing?

1. Chronic conditions: Vitality and mortality
2. What have lifestyle behaviors to do with pain and trauma at all?
3. Pain and trauma mechanisms & processes
4. Differential responsiveness to intervention
5. ACTIVEBODY



What gives you vitality?

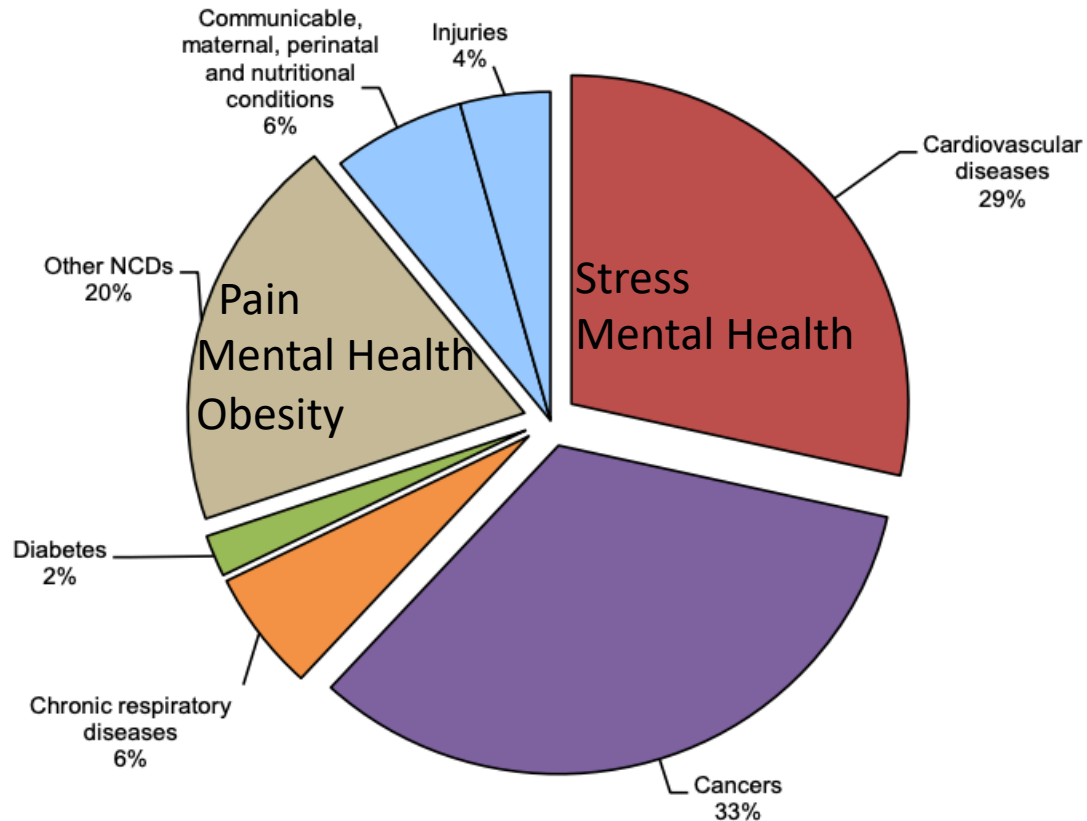
In pairs share two things that increases your vitality

Which conditions are we dying of?

- In pairs do a brain storming and name at least 3 conditions that cause most deaths in the world
- 1 minute

NCD=Non Communicable Diseases

Proportional mortality (% of total deaths, all ages, both sexes)



2014

Total deaths: 140,000

NCDs are estimated to account for 89% of total deaths.

Which are the riskfactors related to these conditions?

- In pairs do a brain storming of risk factors and contributors to ill-health
- Write down at least 3 behaviors
- 1 minute

What is Lifestyle Medicine?

What is Lifestyle Medicine?



World Health Organization

Core

Emerging

Topics

News

Countries

Noncommunicable diseases and mental health

About Noncommunicable Diseases and Mental Health

Our mission

The mission of the Noncommunicable Diseases and Mental Health Cluster (NMHC) is to provide leadership and the evidence base for international action on surveillance, prevention and control of noncommunicable diseases, mental health disorders, malnutrition, violence and injuries, and disabilities.

Working jointly with Regional and Country Offices, the NMHC supports Member States in promoting health and in preventing premature death and disability from these conditions by addressing their risk factors and determinants and improving health care and rehabilitation services.

- State: NMHC cluster organigram pdf, 39kb
- Comm: Brochure: Providing global leadership - Noncommunicable Diseases and Mental Health Cluster 2014-2017
- PA, Forc: Advocacy flyer: Global action plan for the prevention and control of NCDs 2013-2020

[Find a Lifestyle Medicine Practitioner](#)

What are noncommunicable diseases and their risk factors?

Noncommunicable diseases (NCDs), including heart disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for almost 70% of all deaths worldwide. Most three quarters of all NCD deaths, and 82% of the 16 million people who die naturally, or before reaching 70 years of age, occur in low- and middle-income countries. The rise of NCDs has been driven by primarily four major risk factors: tobacco use, physical activity, the harmful use of alcohol and unhealthy diets.

[Click here](#) to download the **What is Lifestyle Medicine** patient-education infographic.



NUTRITION



**PHYSICAL ACTIVITY
SEDENTARY TIME**



**TOBACCO
& ALCOHOL**



**PRESENCE and
Awareness**



SLEEP



**HEALTHY
RELATIONSHIPS**

So, what are you doing there
sitting and staring at me?

**STAND UP &
Stay alive!**

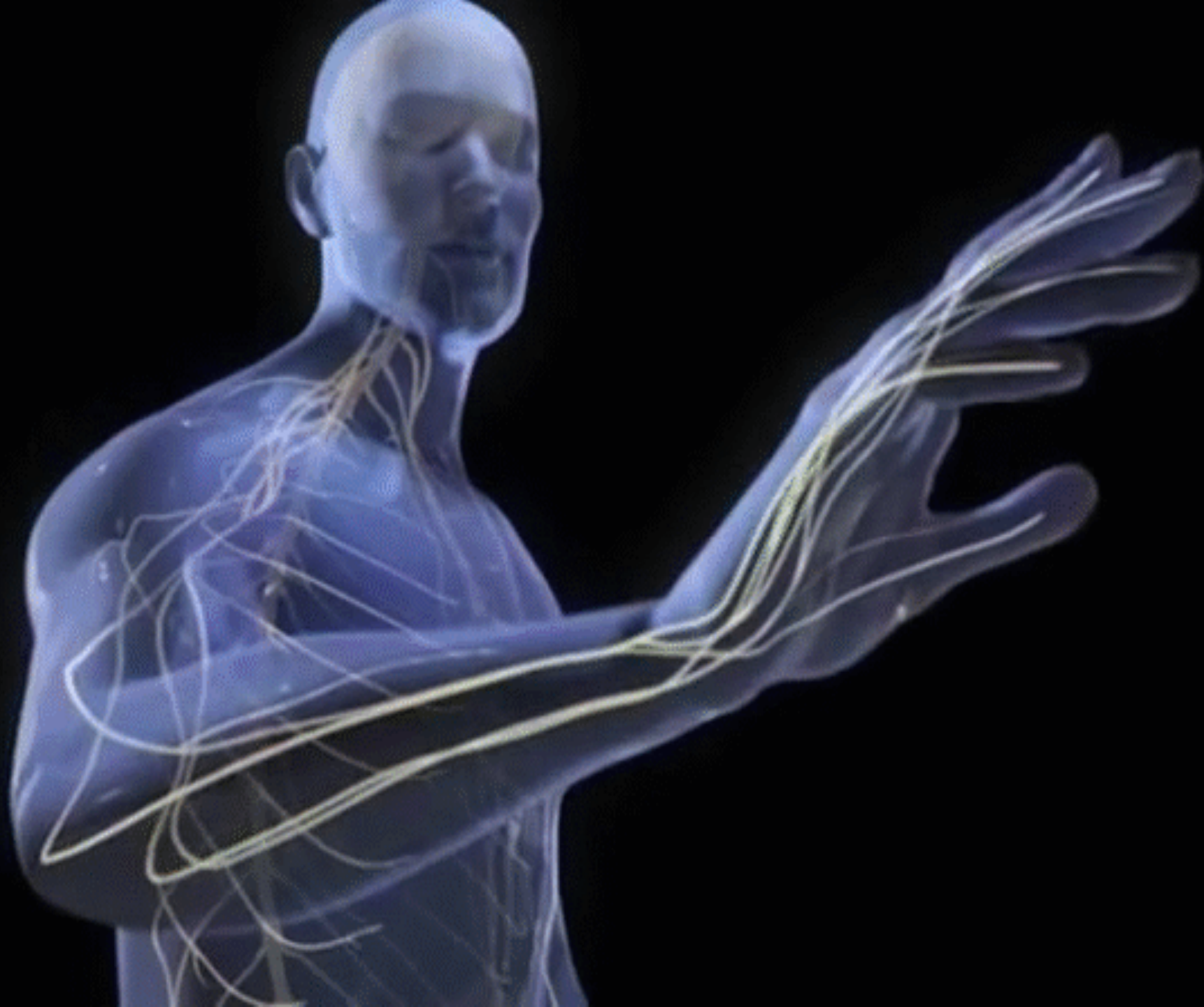
Our lifestyle-
behaviors
determine our
health...

Behavior

HOW?

■ Discuss possible mechanisms
with the person at your side



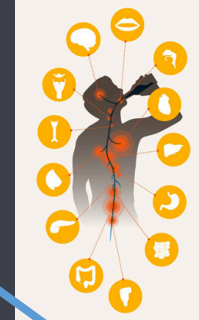
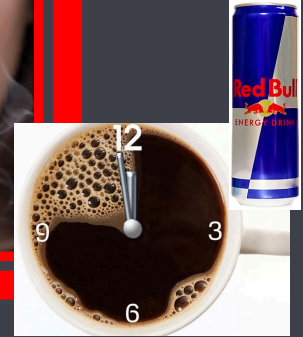


Our lifestyle-
behaviors
determine our
health... and...

Behavi



What do these behaviors have in common?



Inflammation
influences
**BEHAVIORAL
FLEXIBILITY &**
responsiveness to
treatment

Behavioral flexibility \approx plasticity in neurological terms
= "resilience factor" (CBT term)

- **INSIGHT!**
- Being aware of a need of change Awareness of the own behaviors and their consequences
- Realizing that is ME the one that need to do these changes
- Perspective taking

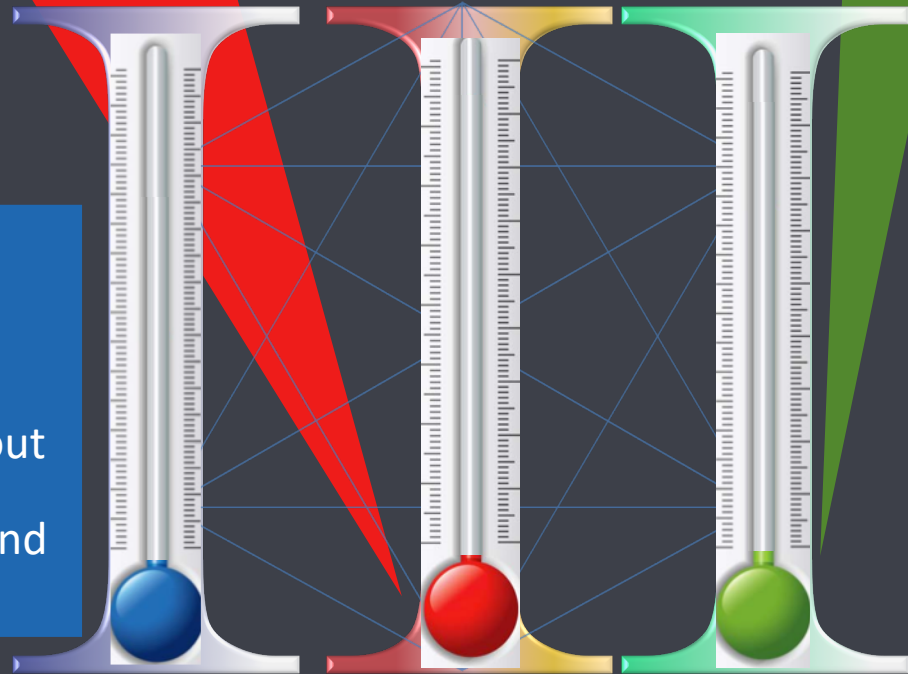
- **MOTIVATION**
- Meningsfulness
- Curiosity
- Engagement
- Know how
- ACTIONPlan
- ACTION!

Which mechanisms do we need to change & keep behaviors?

COMPASION, LOVE AND EMPHATY!
ARE **SELF-CARE** STRATGIES TO:

- handle difficulties and setbacks
- be willing to experience discomfort (thoughts, emotions, sensations) without the need to control to act on them
- Be able to take the own 'rules' lightly and flexibly

ACTiveRehab



Openness Awareness Engagement

The chemistry of bread-making

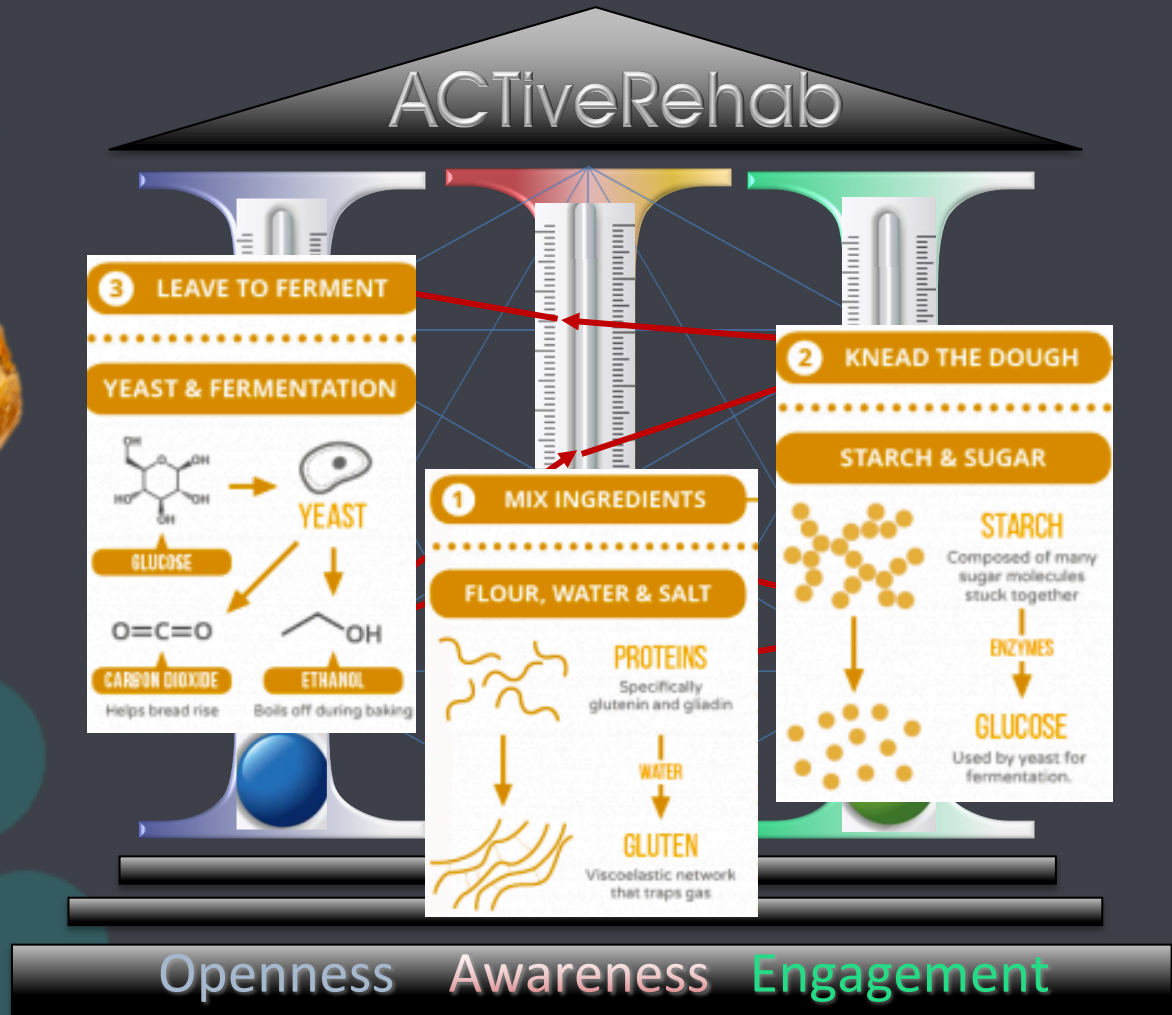


OTHER INGREDIENTS

R-C(=O)OH
R = long hydrocarbon tail

Weaken the gluten network, giving a softer bread. Also stabilise gas bubbles, increasing loaf volume.

Sustainable changes!!!
Irreversible



The process or mechanisms of change

Physical changes, only the form changes

Superficial
changes!!!
Reversible



Openness Awareness Engagement

ACTiveAssessment

How to apply the ACT processes to understand our patients' differential responsiveness and needs to rehab (independently of the diagnosis)



Volume 16, Number 11
November 2015

The Journal of Pain

OFFICIAL JOURNAL OF THE AMERICAN PAIN SOCIETY



Different rehabilitation needs?

On the Cover



Acceptance and Commitment Therapy (ACT) aims to increase the behavioral flexibility of individuals facing painful situations. Pain acceptance is the willingness to experience pain while engaging in valued activities. It is often measured using the Chronic Pain Acceptance Questionnaire. Previous analyses identified three patient clusters which differed across measures of patient functioning in meaningful ways. In this issue, Rovner et al present clustering using Latent Class Analysis. This cover image, a collaborative piece between ACT psychologist and artist Rikke Kjelgaard and author Graciela Rovner, is metaphorically related to ACT. See Rovner et al, [page 1095](#).

Looking for indicators....

HAD

MPI

EQ-5D

SF36 TSK

CPAQ-8

Pain Evaluation and Treatment Institute, University of Pittsburgh School of Medicine

EQ-5D Hälsoenkät

Markera, genom att kryssa i en ruta i varje nedanstående grupp, vilket påstående som bäst beskriver Ditt hälsotillstånd idag.

Rörlighet

Jag går utan svårigheter

Jag kan gå men med viss svårighet

Jag är sångliggande

Födelseland: Sverige Annat nordiskt land

Europeiskt utom Norden Annat land - Vilket år kom du till Sverige? _____

Utbildning. Vilken är din högsta avslutade utbildning?

Grundskola

Gymnasium eller yrkesutbildning (2 år eller mer)

Universitet/högskola

Aktuell arbetsform: _____

1 Är anställd

2 Är arbetslös

3 Är studerande

4 Ej förvärvsarbetande, t ex hemmafru/mamma

5 Pensionär, samt socialbidragstagare som ej är förvärvsarbetande

Hospital Anxiety and Depression Scale (HAD)

INSTRUKTIONER: Läs varje påstående och sätt ett kryss i rutan till vänster om det svar, som kommer närmast hur du känt dig under den senaste veckan. Fundera inte alltför länge. Det första svar som dyker upp är antagligen riktigare än ett svar som du funderat på länge. Svara på alla frågor. Kryssa bara i en ruta för varje påstående!

1 Jag känner mig spänd eller "uppskruvad"

För det mesta

CPAQ-8

Skatta hur sant varje påstående är för dig genom att ringa in siffran 0-6 i rutan nedan. Använd skalan nedan för att göra dina val. Siffran 0 betyder "inte av alls sant" och siffran 6 betyder "alltid sant".

0	1	2	3	4	5	6
Mycket sällan sant	Sällan sant	Sant ibland	Ofta sant	Nästan alltid sant	Alltid sant	
0	1	2	3	4	5	6
0	1	2	3	4	5	6
0	1	2	3	4	5	6
0	1	2	3	4	5	6
0	1	2	3	4	5	6
0	1	2	3	4	5	6
0	1	2	3	4	5	6

Hälsoenkät

Instruktion: Detta formulär innehåller frågor om hur Du ser på Din hälsa. Besvara frågorna genom att markera det svarsalternativ Du tycker stämmer bäst in på Dig. Om Du är osäker, markera ändå rutan som känns riktigast. Sätt ett kryss i rutan, så här .

1.	I allmänhet, skulle Du vilja säga att Din hälsa är:	Utmärkt	Mycket god	God	Någorlunda	Dålig
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Jämfört med för ett år sedan, hur skulle Du vilja bedöma Ditt allmänna hälsotillstånd nu?	Mycket bättre nu	Något bättre nu	Ungefär detsamma	Något sämre nu	Mycket sämre nu
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	De följande frågorna handlar om aktiviteter som Du kan tänkas utföra under en vanlig dag. Är Du på grund av ditt hälsotillstånd begränsad i dessa aktiviteter nu? Om så är fallet, hur mycket?					

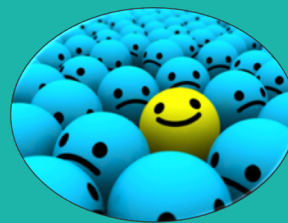
The CPAQ scores as indicator of function

- PW + AE



Reward & re-active

+ PW + AE



Curious and pro-active

Engagement +

- PW Pain

Willingness +

- PW - AE



Threaten

- AE Activity

+ PW - AE



Ambivalent

The CPAQ scores as indicator of function

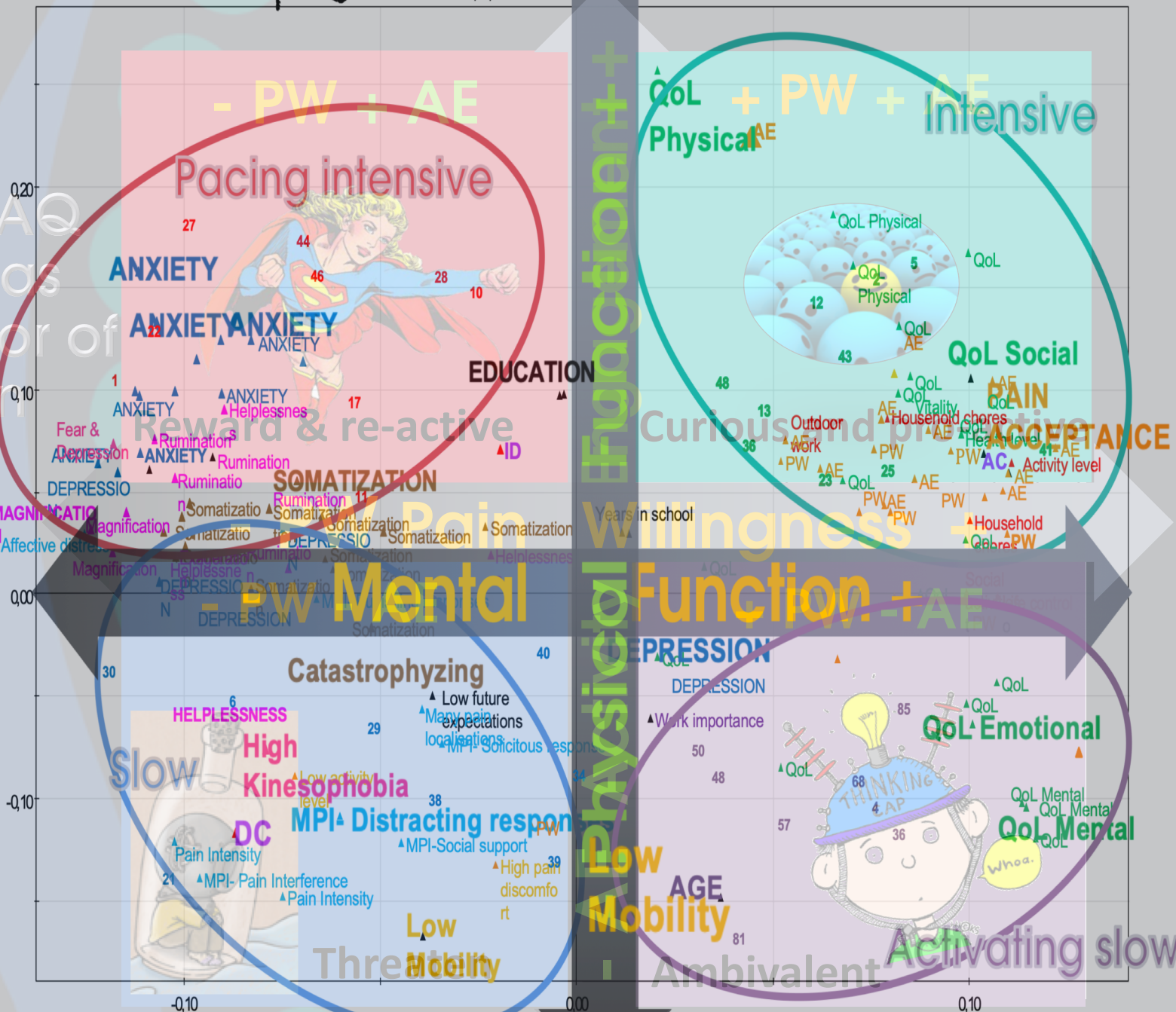
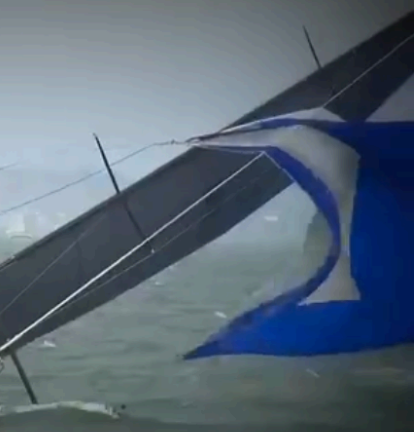


Figure 1 PCA loading plot of the loadings of the principal components

How do we navigate in different situations?

-
-



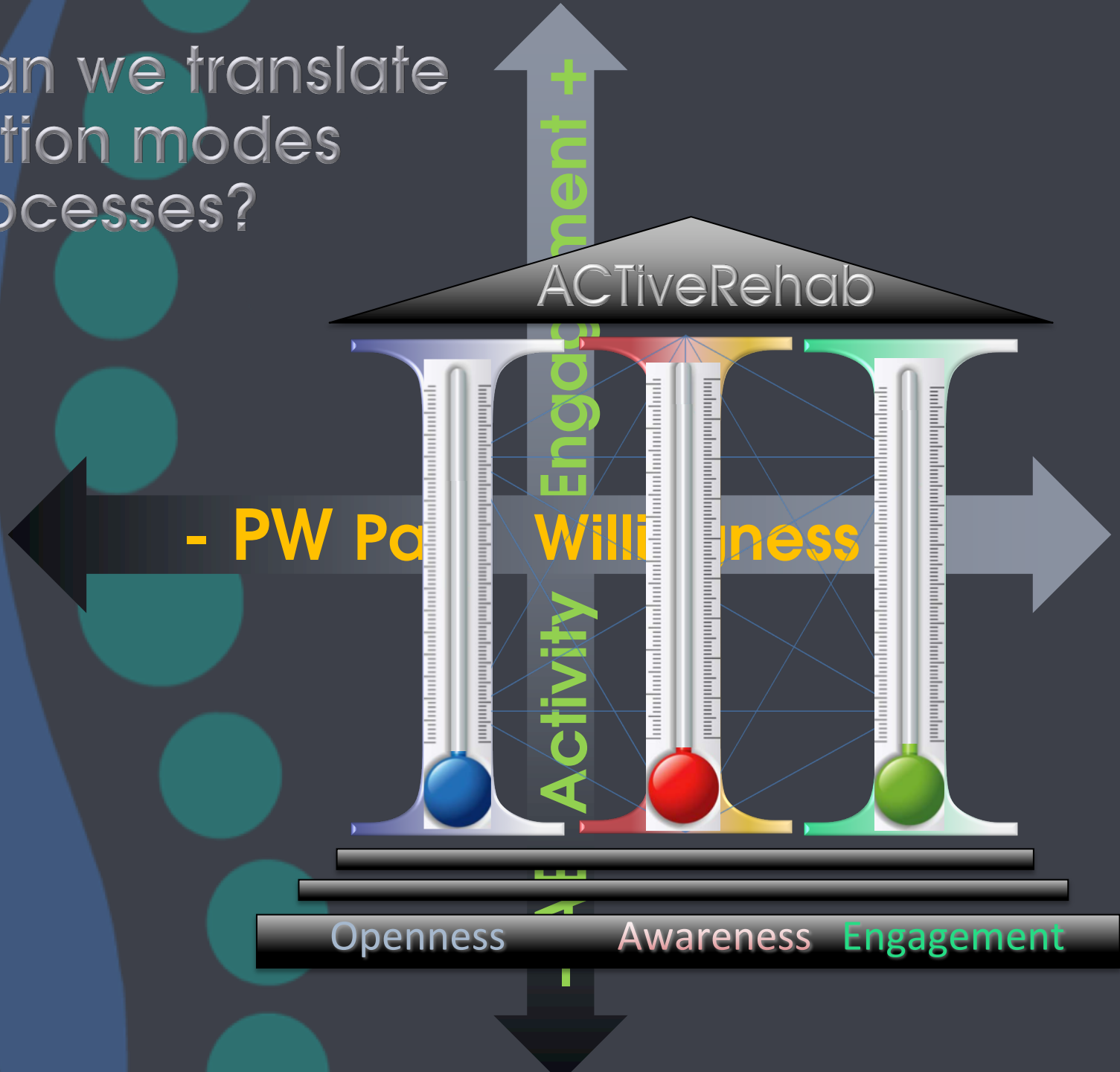
↑ engagement +

↓ - AE Active

- PW: Performance +

In which of these situations and behavioral patterns are we more most capable to change?

How can we translate navigation modes into processes?





How can you see if someone is acting with awareness or self-awareness?



- In threes:
 - A physical sign for awareness
 - A mental one
 - A social one
- Body-language?
- Verbal language?
- Attentional capacity?



How can you see if someone is committed and engaged in their vital values?



- In three describe :
 - A physical sign for commitment
 - A mental one
 - A social one
- Body-language?
- Verbal language?



How can you see if someone is acting with openness?

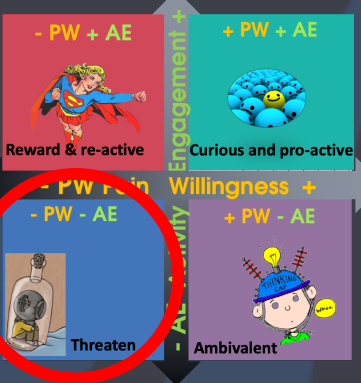


- In threes:
 - A physical sign for openness
 - A mental one
 - A social one
- Body-language?
- Verbal language?

Case 1



- Describe for each other, a patient that is in a crisis, or experience the situation (their condition, the pain, etc.) as a crisis.
- Write down 5 characteristics or how you would explain for a colleague about this patient in
- Have you used behavioral terms? (and observable ones)

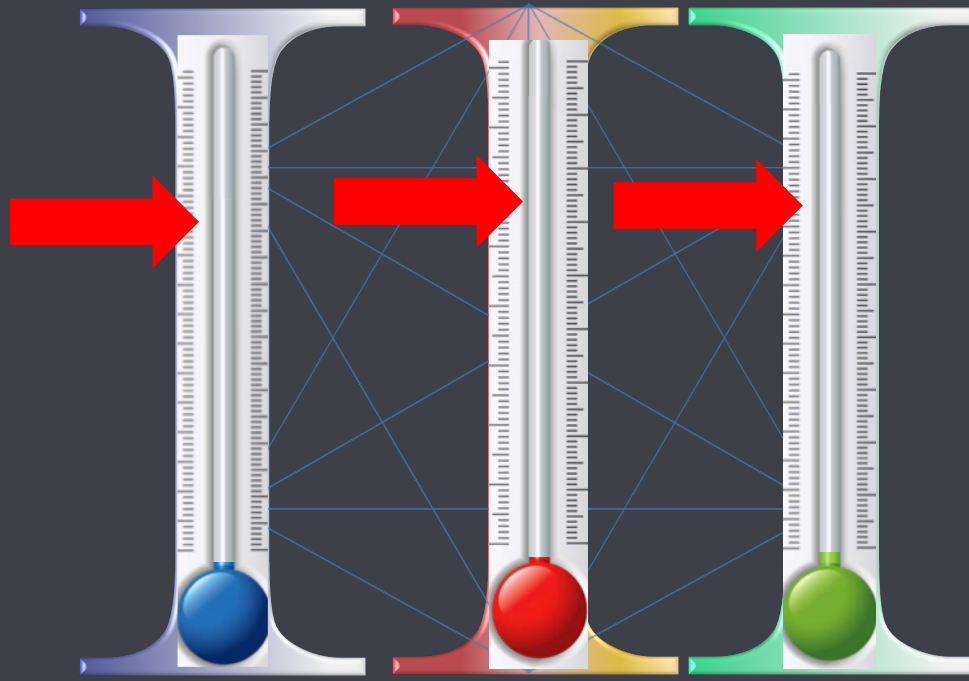
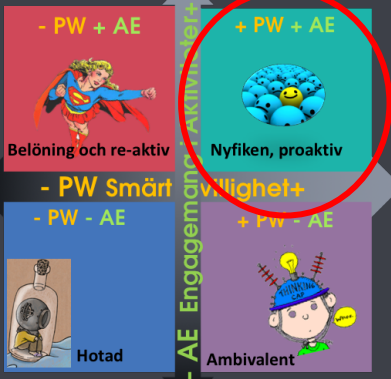


BAM Brief Acceptance Measure, David Gillanders

Openness Awareness Engagement

Struggling with my thoughts, feelings or physical sensations	1	2	3	4	5	6	7	8	9	10	Open to my thoughts, feelings or physical sensations
Acting without awareness (auto-pilot)	1	2	3	4	5	6	7	8	9	10	Acting with awareness
Not pursuing things that matter to me	1	2	3	4	5	6	7	8	9	10	Pursuing things that matter to me

ACTiveRehab



Openness Awareness Engagement

Struggling with my thoughts, feelings or physical sensations

1 2 3 4 5 6 7 8 9 10

Open to my thoughts, feelings or physical sensations

Acting without awareness (auto-pilot)

1 2 3 4 5 6 7 8 9 10

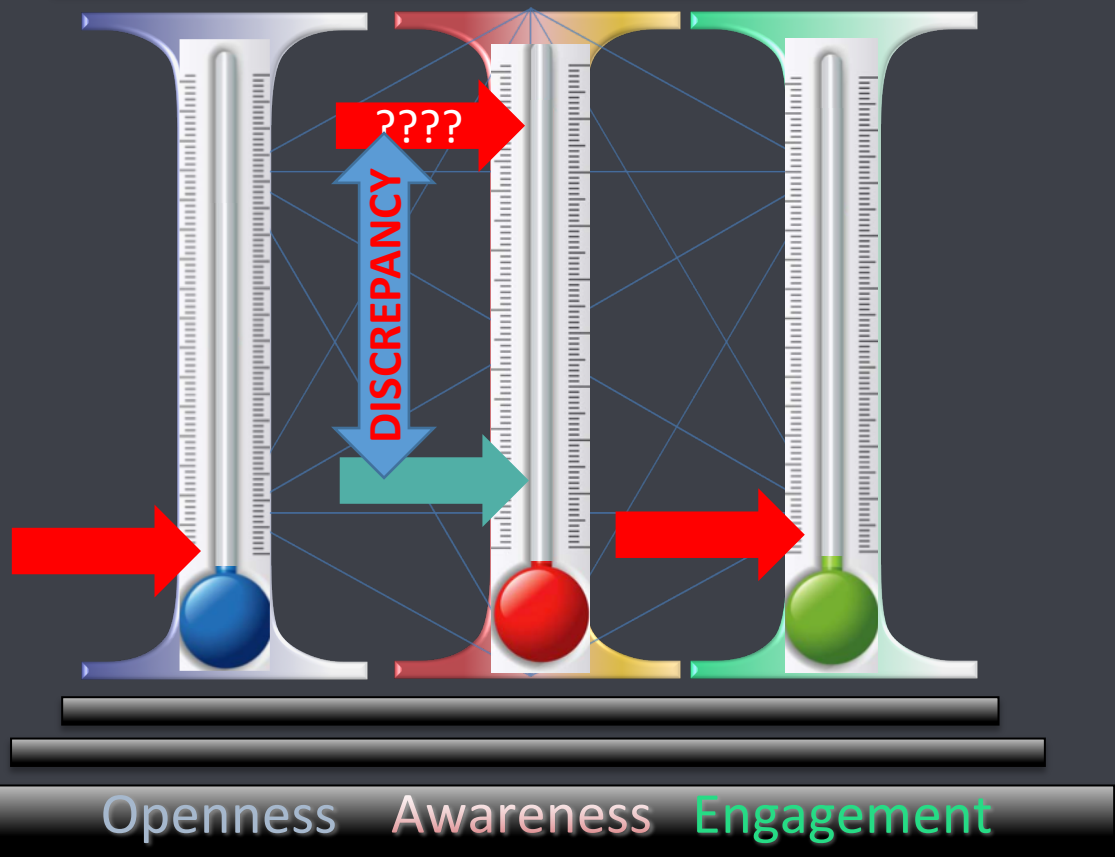
Acting with awareness

Not pursuing things that matter to me

1 2 3 4 5 6 7 8 9 10

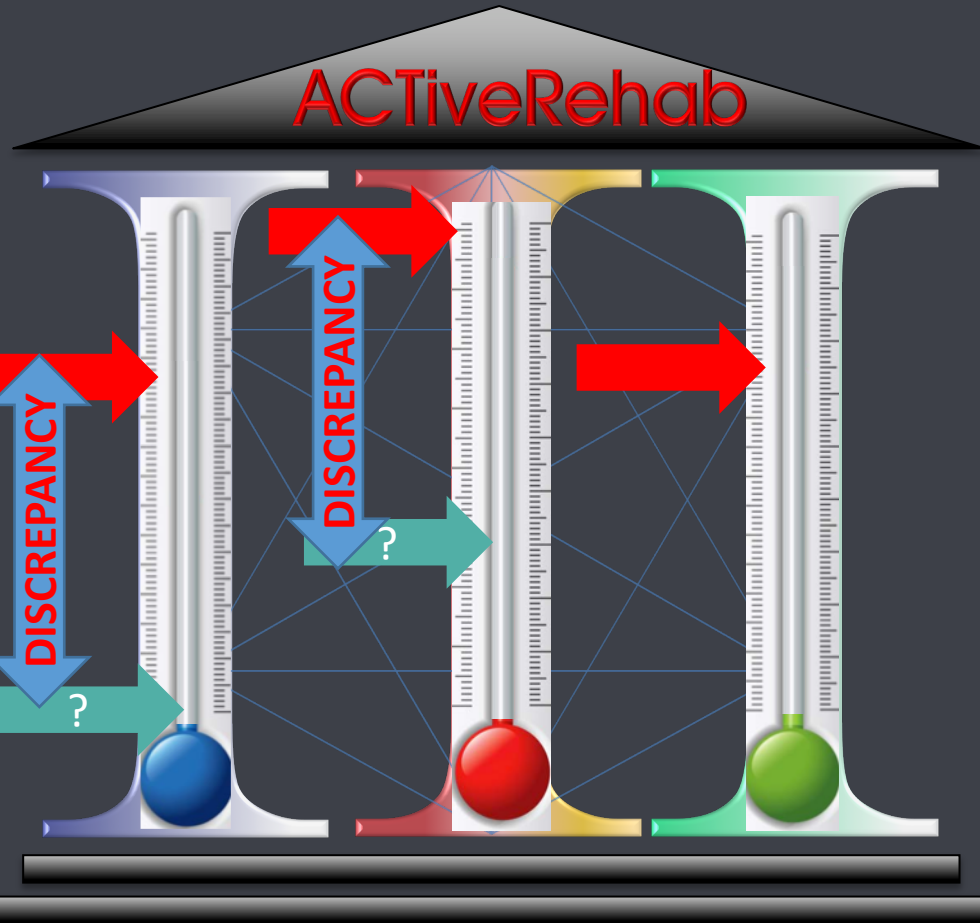
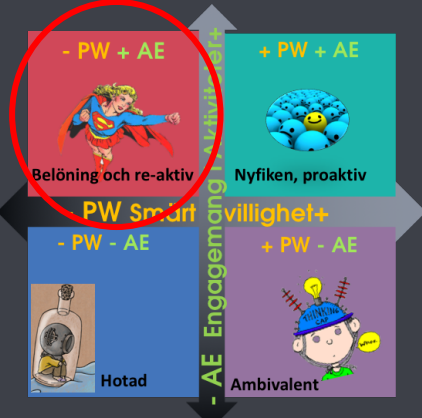
Pursuing things that matter to me

ACTiveRehab



BAM Brief Acceptance
Meassure by
David Gillanders

Struggling with my thoughts, feelings or physical sensations	1	2	3	4	5	6	7	8	9	10	Open to my thoughts, feelings or physical sensations
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Openness Awareness Engagement

BAM Brief Acceptance Measure by David Gillanders

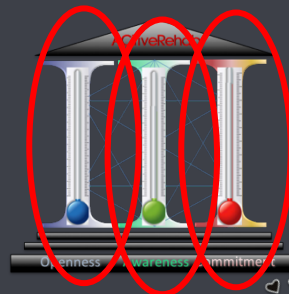
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Not pursuing things that matter to me	1	2	3	4	5	6	7	8	9	10	Pursuing things that matter to me

Assessing and targetting rehab needs



Building

Assessing and targetting rehab needs



'Language' Building

Empathy Trust

Vulnerability Curiosity

Non-reactivity Re-charge batteries

Compassion

Expand

Letting go

Soften

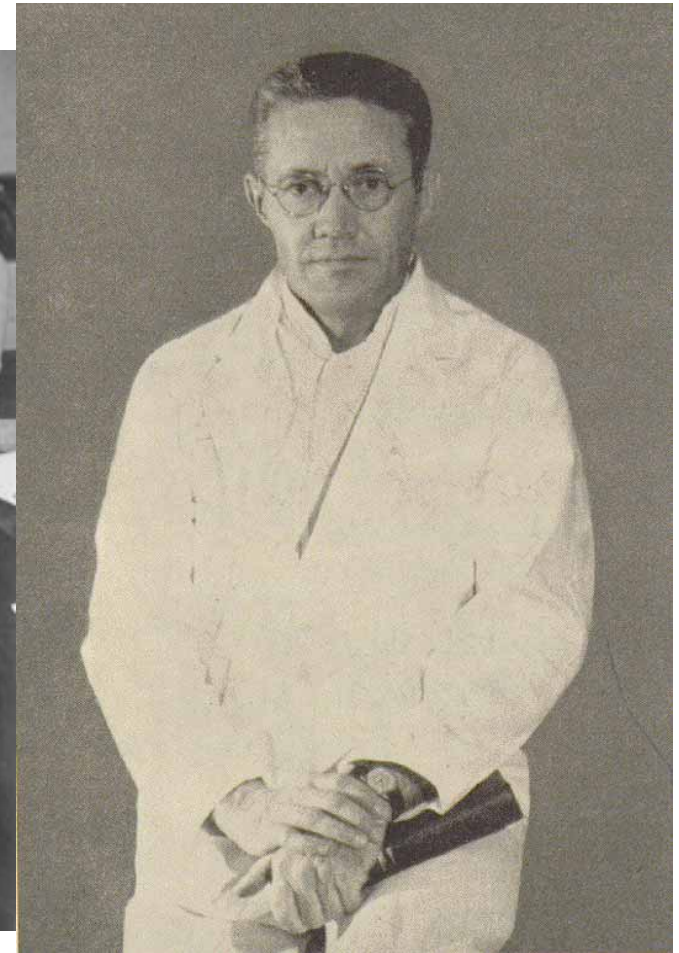
Naming Describing

Noticing Observing

Pain mechanisms:
how can we
influence them?



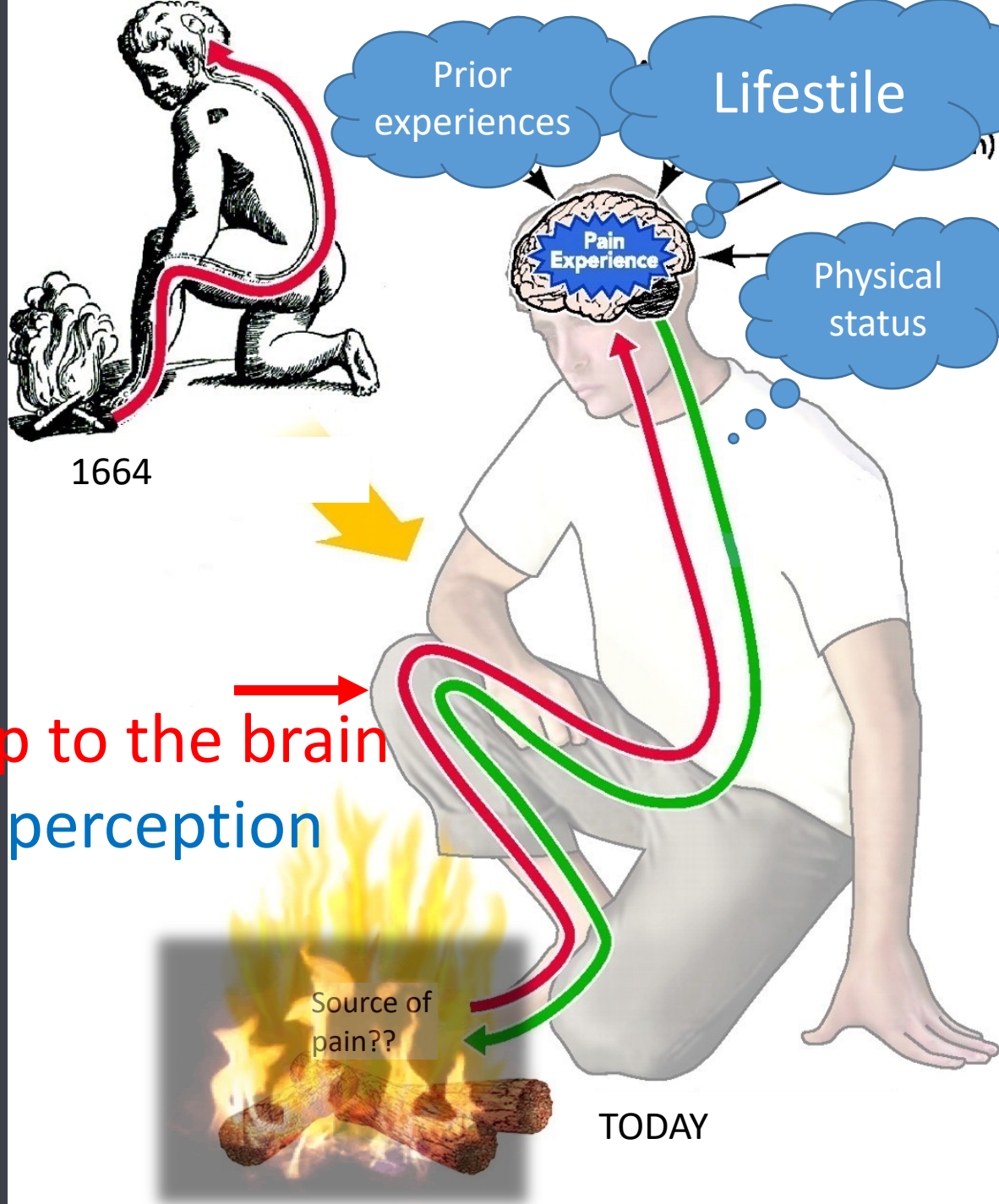
Pain entered the psychology field...



Henry Knowles Beecher

Neuroscientific and contextual chronic pain model

1. Sensation goes up to the brain
2. It is processed >> perception
3. ACT or re-act?





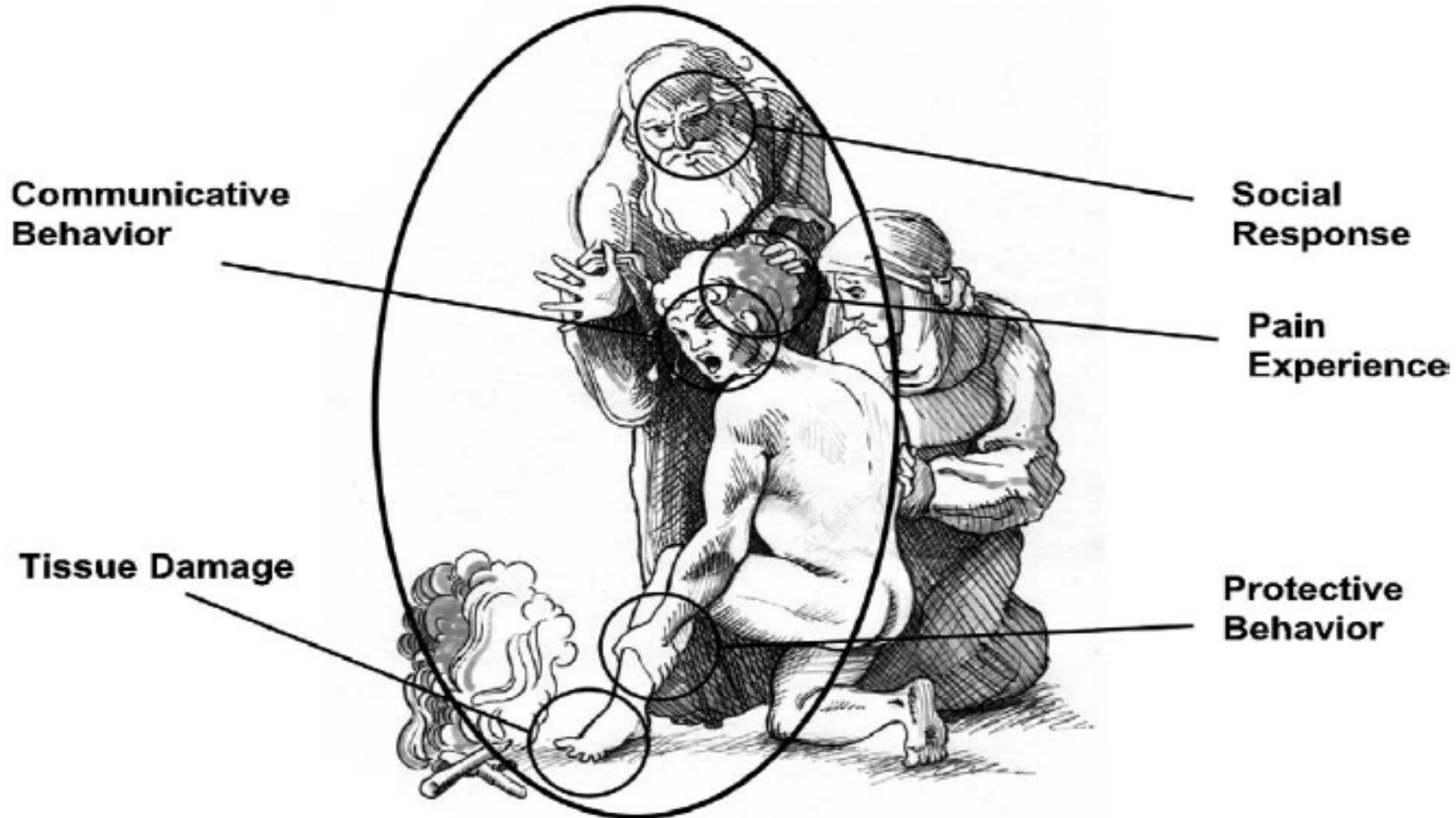
Arntz, A., Claassens, L. (2004) The meaning of pain influences its experienced intensity. *Pain* 109: 20-25.

Moseley, G.L., Arntz, A. (2007) The context of a noxious stimulus affects the pain it evokes. *Pain* 133: 64-71.

Kross, E.M. et al. (2011) Social rejection shares somatosensory representations with physical pain. *Proc Nat Acad Sci* 108: 6270-6275.

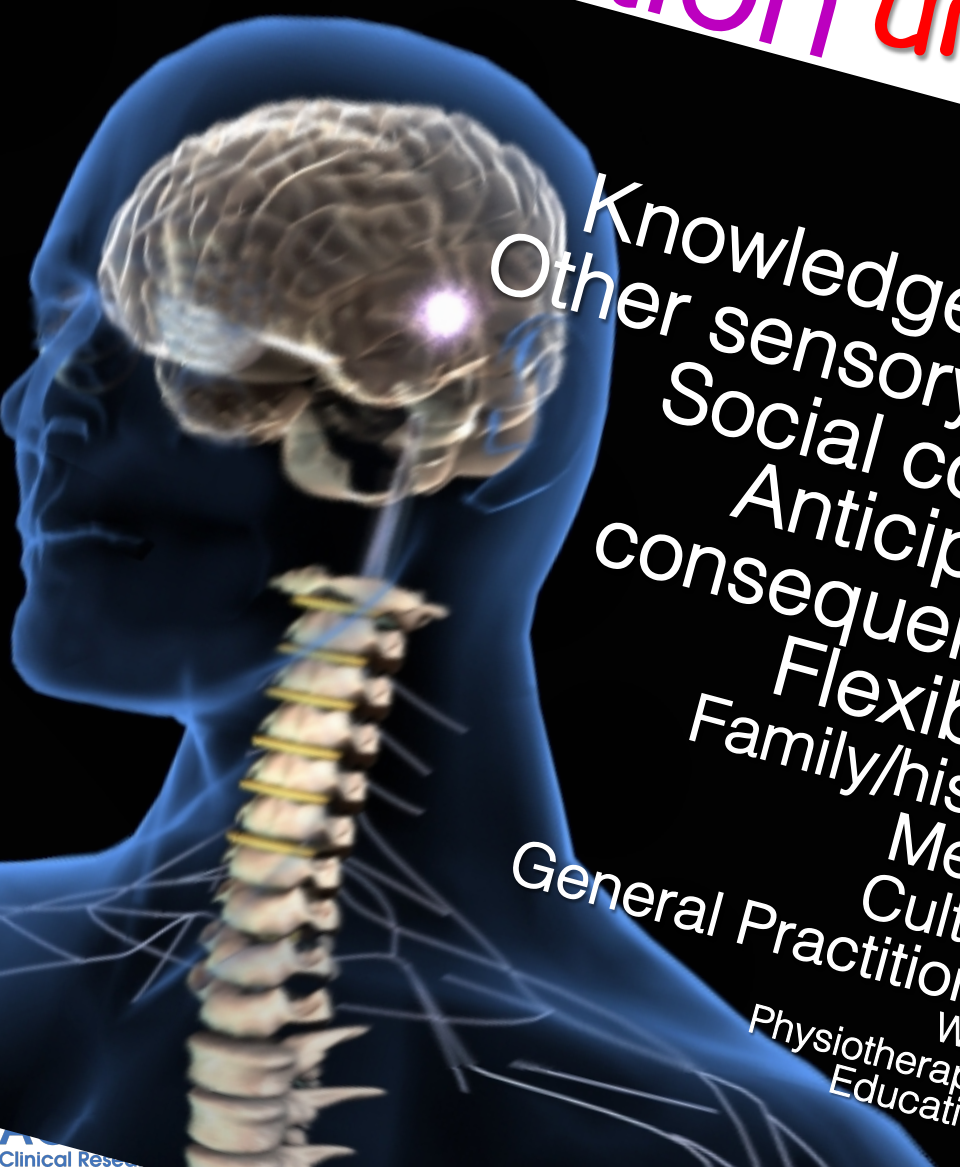
Eisenberger, N.I. (2012) The neural bases of social pain: Evidence for shared representations with physical pain. *Psychosomatic Medicine* 74: 126-135.

But pain is more than 2 internal mechanisms it is



Loss of INHIBITION
OF THE SPINAL CORD

PAIN
modulation UNDERESTIMATING!!!



- Beliefs
- Knowledge, logic
- Other sensory cues
- Social context
- Anticipated consequences
- Flexibility
- Family/history
- Media
- Culture
- General Practitioner
- Physiotherapist
- Work
- Education



Your nervous systems experiences this!!



How is the messenger doing?



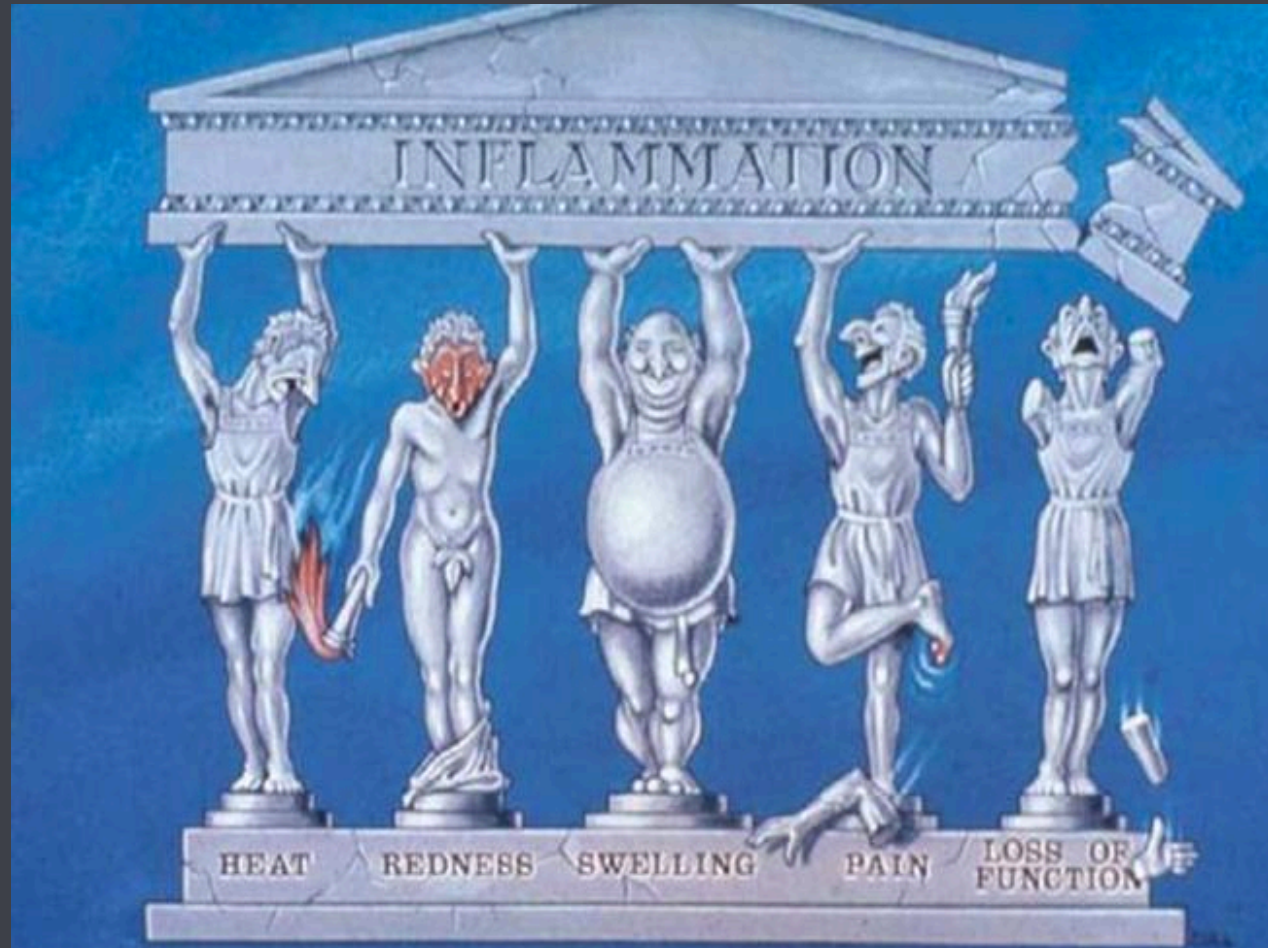
If the messenger (the nervous system) is balanced and healthy, the message will reflect better the real situation...



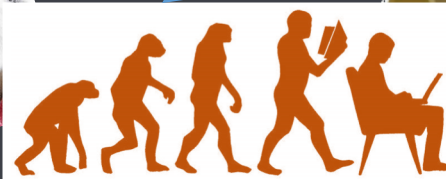
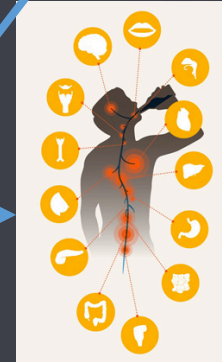
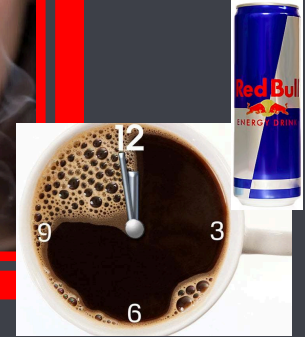
... but if the messenger is
inflamed: tired, irritated,
worried, fed with unhealthy
food or is sedentary...



FLAMME → INFLAMMATION



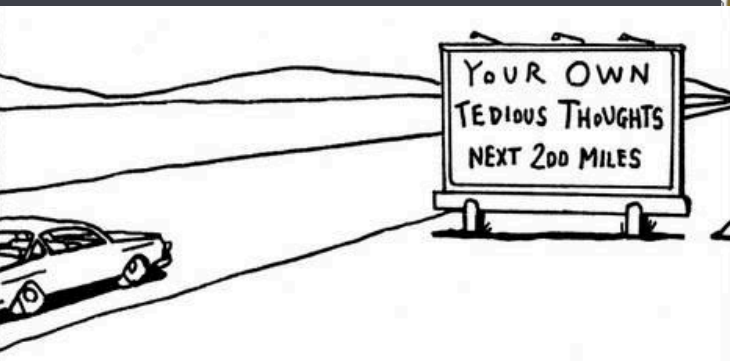
in-FLAMM-able



in-FLAMM-able



SHAME ON YOU





ACTive

BODY

B: BAS: balance, stillness, awareness & strength

O: Open, willing and flexible!

D: Dynamic stamina/cardio

Y: your movements towards flexible Behavioral lifestyles and vitality





ACTIVE

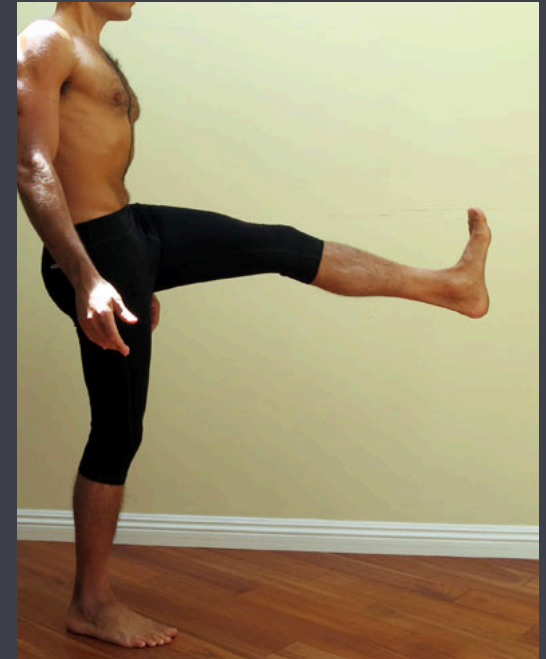
BODY

B: Balance, awareness
& strength

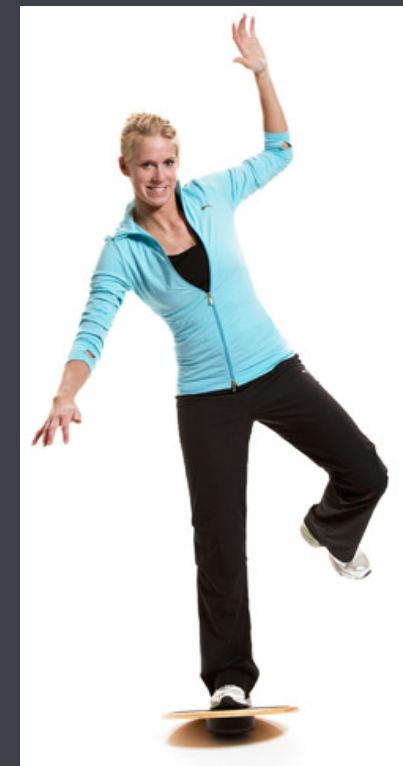
O: Open, flexible & Willing

D: Dynamic stamina/cardio

Y: your movements towards flexible
Behavioral lifestyles and vitality



Cut sedentary time: 1 min/hour



ACTIVE

BODY



B: Balance, awareness & strength

O: Open, flexible & Willing

D: Dynamic stamina/cardio

Y: your movements towards flexible Behavioral lifestyles and vitality

STOP and OPEN

S: Stop and feel the discomfort or pain

T: Take a breath around that sensations

O: Observe what is happening. What do you feel? Where are your thoughts?

P: Proceed: Continue doing what you were doing for 1 to 5 mins.

Openness is also about to build a flexible stamina and perseverance to stay and embrace discomfort when it is meaningful





ACTIVE

BODY

B: Balance, awareness
& strength

O: Open, flexible & Willing

D: Dynamic stamina/cardio

Y: your movements towards flexible
Behavioral lifestyles and vitality



THANKS!

I've been a LOT of
Places, but
inside the BOX
ain't ONE of THEM!

