

# **Emotion Dynamics**

## **Equations of Emotion**

Presented by  
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# Analogy in Emotion Dynamics

As with all common physical phenomena, Emotion Dynamics includes:

- **Flow** (of emotional energy)
- **Pressure** (will and desire)
- **Impedance** (blockage of flow)

These three quantities interact according to the same laws as their physical analogs

# Analogy in Emotion Dynamics

## Emotional Analogs

Emotional charge ( $e$ ): Electric charge ( $q$ )

Emotional flow ( $\Phi$ ): Electric current ( $i$ )

Emotional flow rate ( $\Phi'$ ): Electric charge acceleration ( $i'$ )

Will, Desire ( $E_e$ ): Force, Voltage ( $E$ )

## Emotive Impedance:

Emotive inductive reactance ( $L_e$ ): **habit**, inertia, addiction

Emotive reluctance ( $R_e$ ): **denial**, judgment, anger

Emotive capacitive reactance ( $C_e$ ): **doubt**, fear, anxiety, avoidance



# Emotive Impedance

Force = impedance x flow

Emotive Force = Desire, Will, Passion

Emotive Impedance = Resistance + Reactance

$$E_e = L_e * \Phi_e' + R_e * \Phi_e + e/C_e$$

$L_e$  = Inductive emotive reactance - **Habit**

$R_e$  = Emotional resistance (reluctance) - **Denial**

$C_e$  = Capacitive emotive reactance - **Doubt**

$e$  = emotional charge (emotion, *noun*)

$\Phi_e$  = emotional flow (emotion, *verb*)

$\Phi_e'$  = emotional flow rate (change in emotions)

# Emotive Impedance

Emotive inductive reactance:

Habit Leads to: addiction, arrogance

Energy is *stored in motion (repetition)*

Emotive reluctance (emotional resistance):

Denial: judgment, anger, disappointment

Energy is *lost to dissipation (friction)*

Emotive capacitive reactance:

Doubt: fear, avoidance, anxiety, distance

Energy is *stored in separation (holding)*

# Analogy in Emotion Dynamics

A lack of Emotional well-being is typically due to:

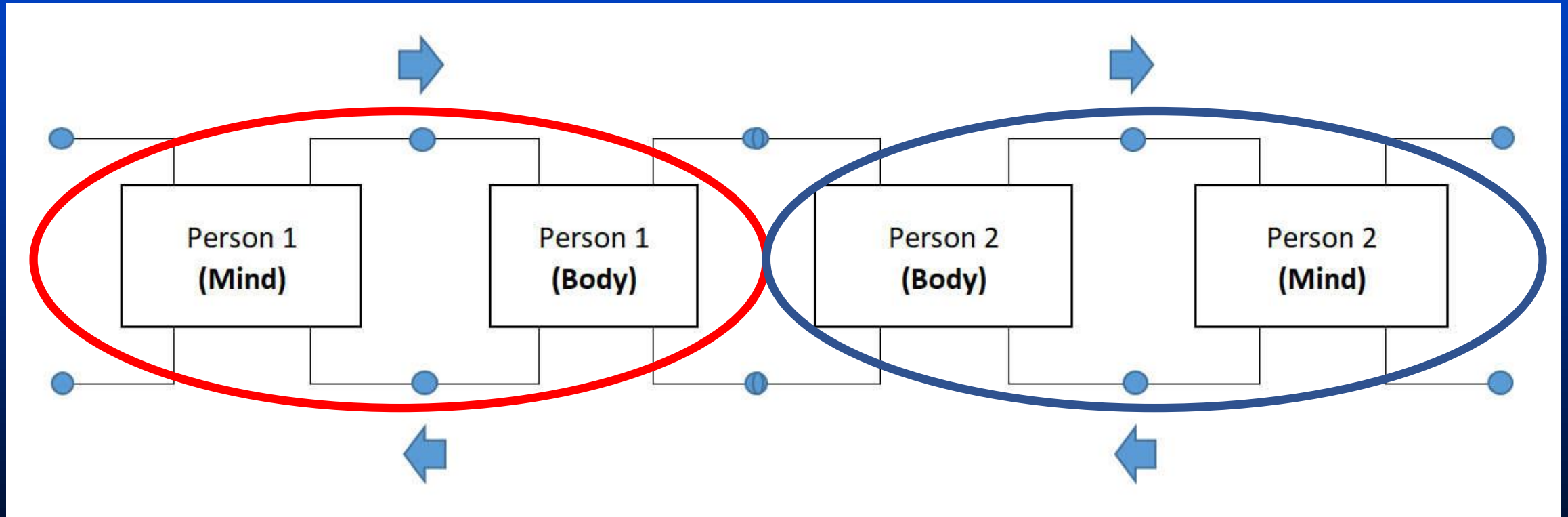
- **Insufficient Flow** (lack of emotional dynamics)
- **Insufficient Pressure** (lack of will and desire)
- **Excess Impedance** (blockage of flow)
  - Excess habit and inertia
  - Excess denial and anger
  - Excess doubt and fear

The 2 insufficiencies are remedied by decreasing these 3.

# Emotive Circuits

Circuit model of consciousness

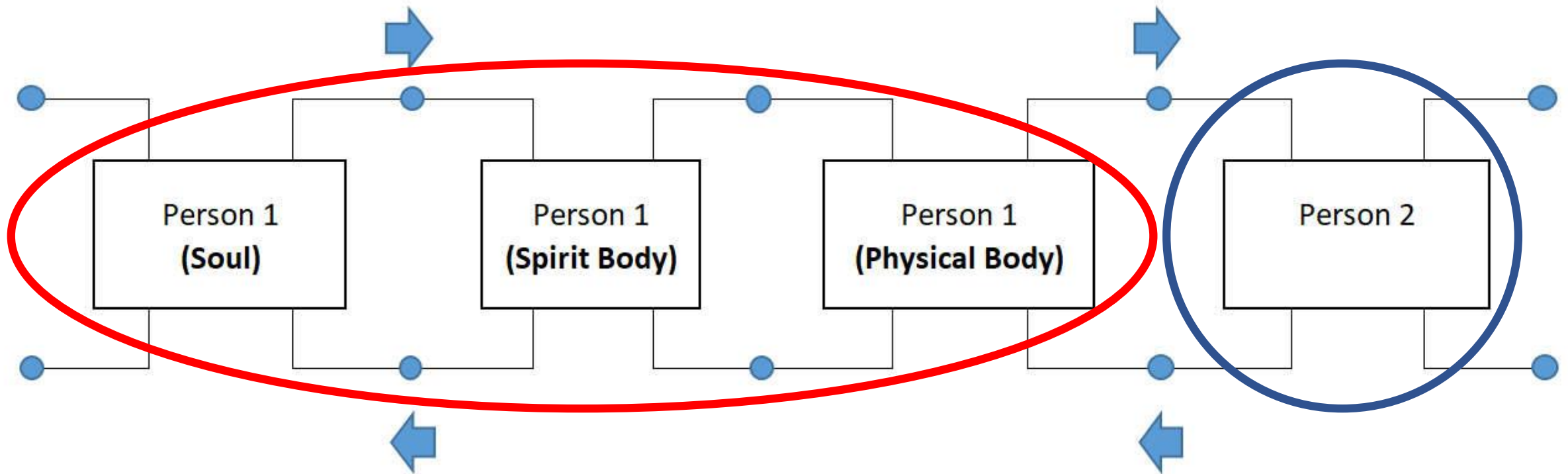
Modeling emotive force & emotive flux



# Analogy in Logical Action

3-Level Model of consciousness

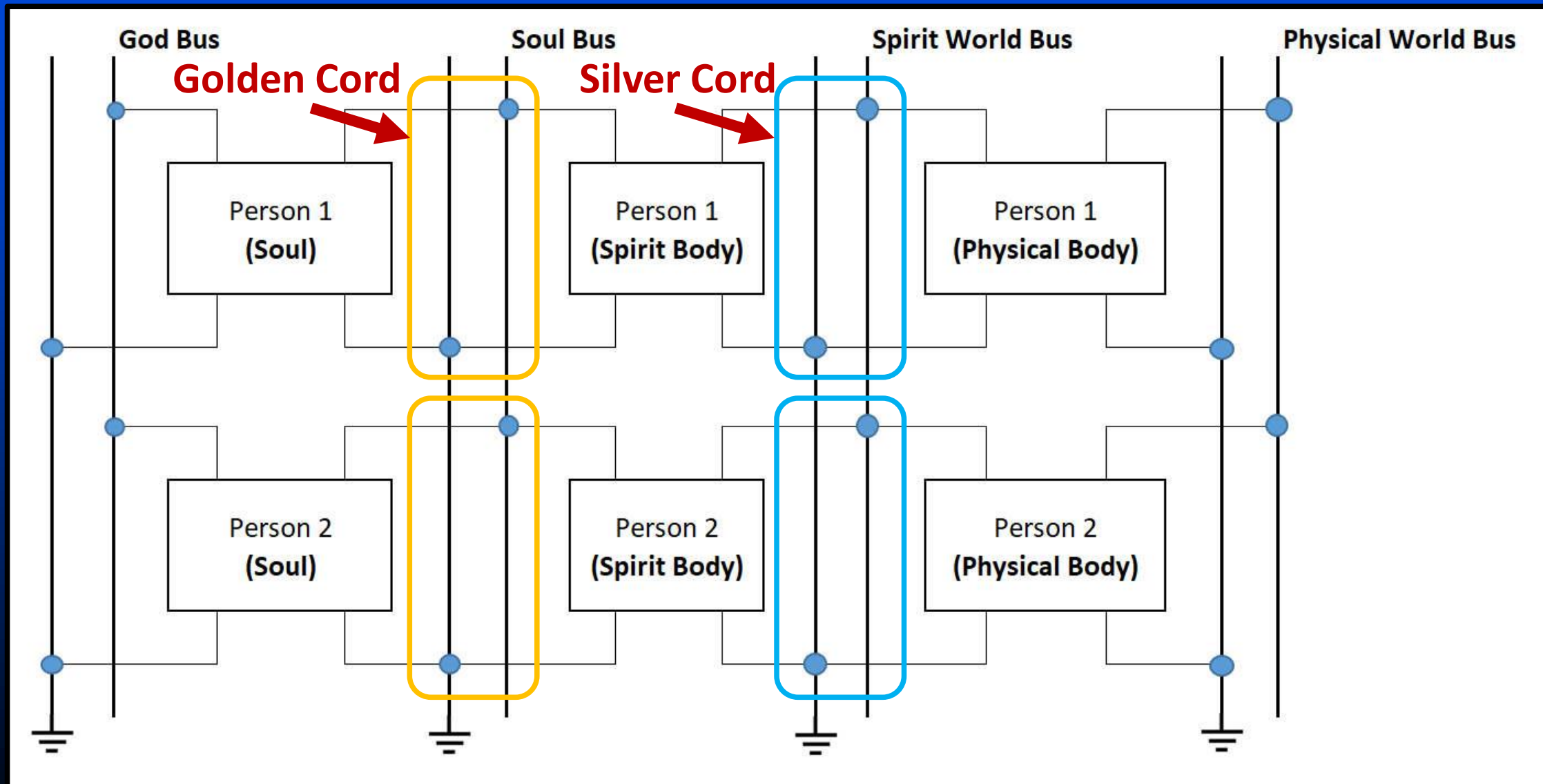
Soul – Spirit Body – Physical Body





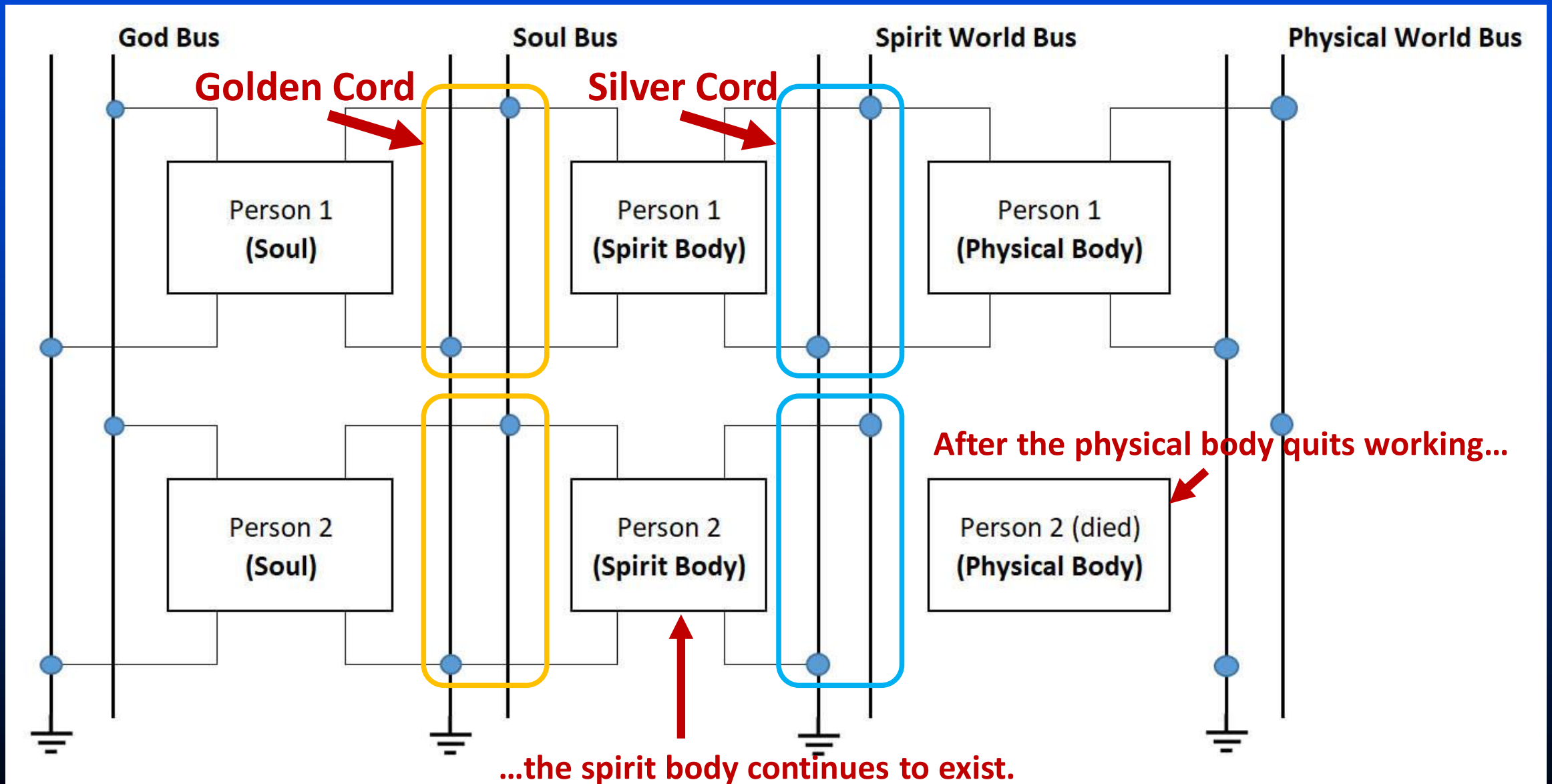
# 3-Level Model of Consciousness

## Soul – Spirit Body – Physical Body



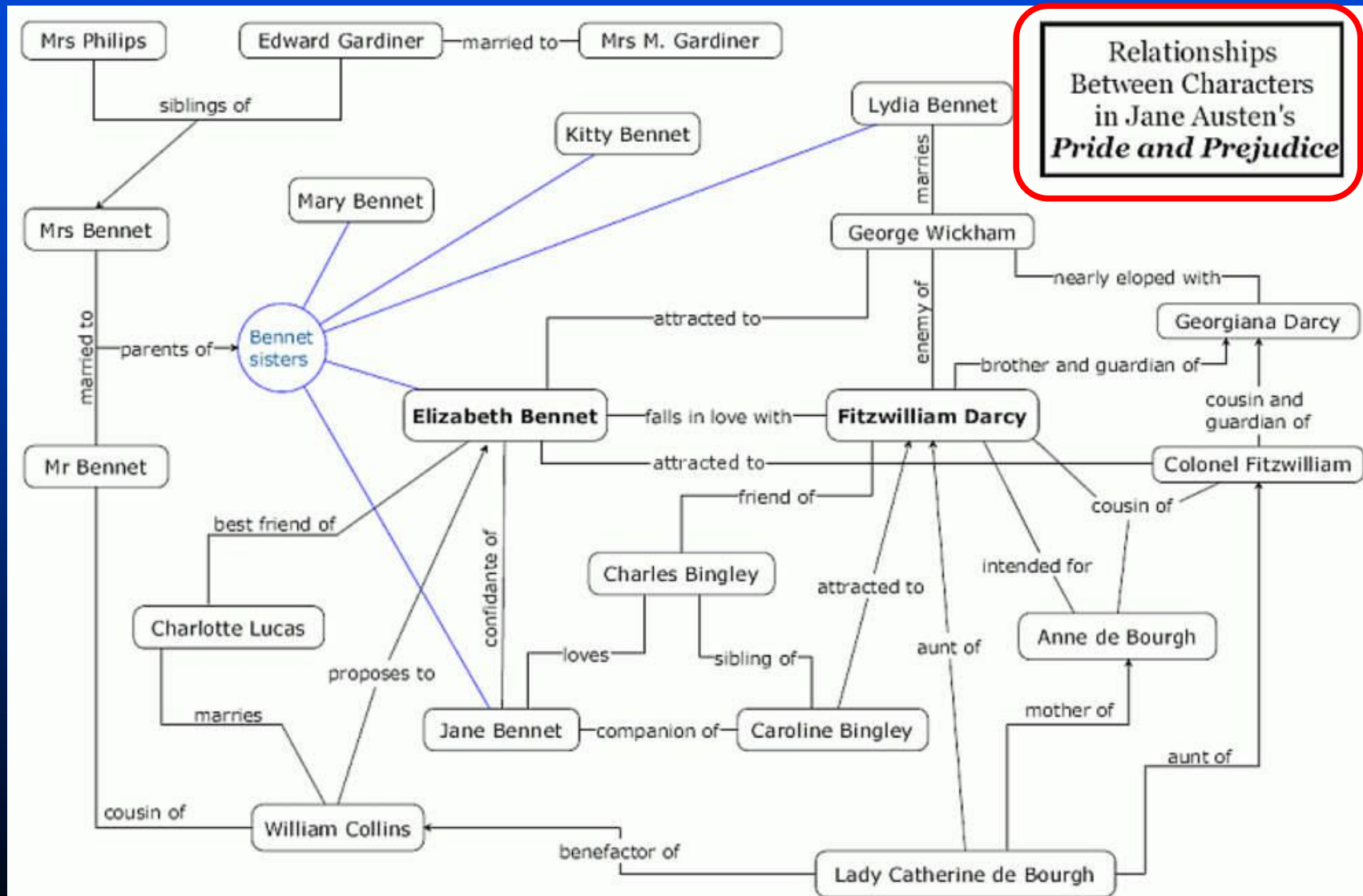
# 3-Level Model of Consciousness

## Soul – Spirit Body – Physical Body



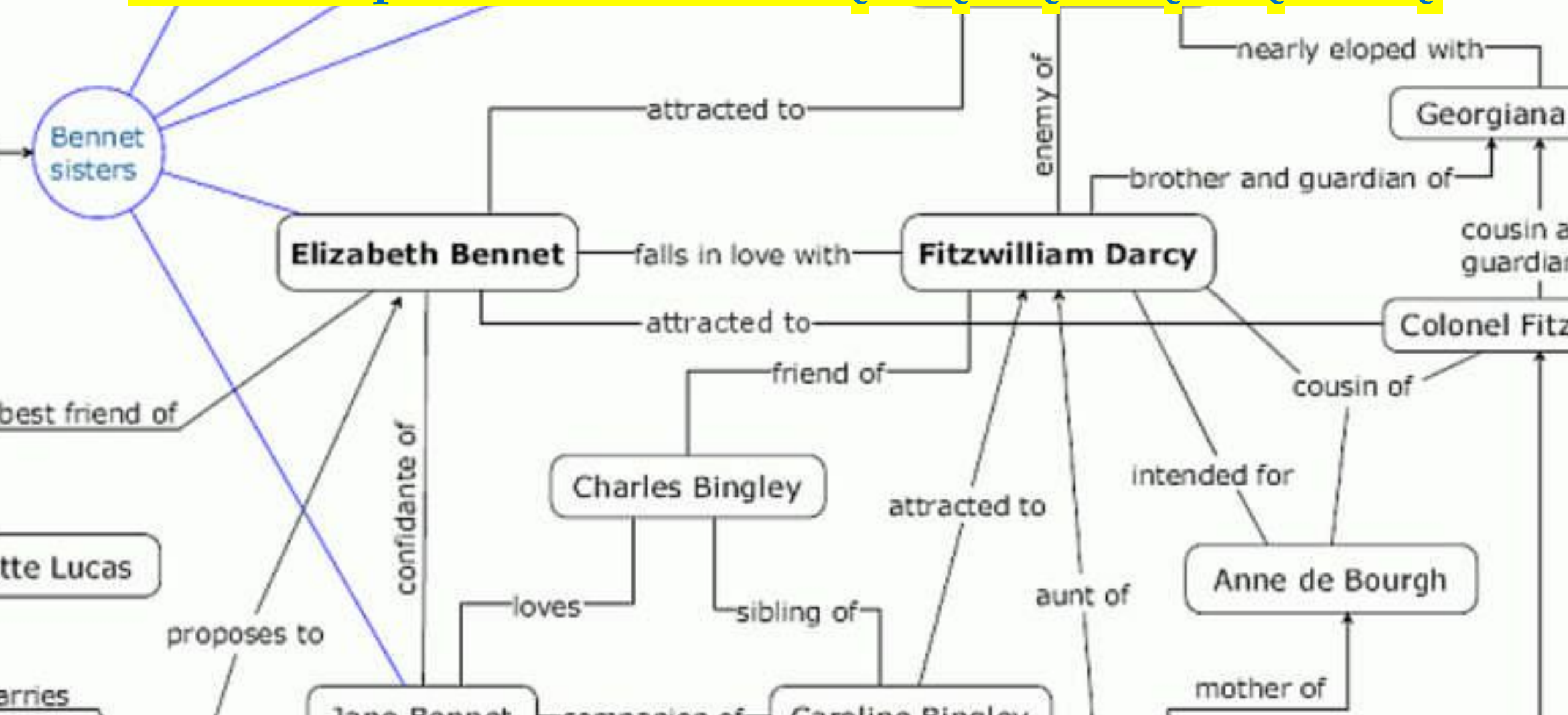
# Emotive Impedance Circuits - Example

Force = impedance x flow --  $E_e = L_e * \Phi_e' + R_e * \Phi_e + e/C_e$



# Emotive Impedance Circuits - Example

Force = impedance x flow --  $E_e = L_e * \Phi_e' + R_e * \Phi_e + e/C_e$





# Emotive Circuit Impedance

Emotional Response Characteristics of an Emotive Circuit

Can be inferred from Response to a probe as signum function (+1 & -1)

Emotional Blockages

Emotional Error

<b>Habits</b>
<b>Denials</b>
<b>Fears</b>

=

**Emotive Impedance**

<b>Inductive Emotive Reactance</b>
<b>Emotive Resistance</b>
<b>Capacitive Emotive Reactance</b>

=

=

When a group of people are subject to the identical event or information, the individual specific response offers clues about personal impedance



# Emotion Dynamics

- The model is intended to represent **how emotions flow** and are processed.
- The model can be developed for **individuals** or **groups**
- As with all common physical phenomena, there is **flow** and **pressure**.
- The main concern is that **most people have too much emotional impedance**, including the **resistance** component (aka **reluctance**) -- a flow restrictor like a narrowing of a fluid conduit, as well as the reactance component (**inductive & capacitive**).

# Emotional Impedance

$L_e\phi' + R_e\phi + e/C$		
Inductive Emotive Reactance	Emotive Resistance	Capacitive Emotive Reactance
$L_e$ $\square$	$R_e$ $\square'$	$1/C_e$ $\square''$
<b>KINEMATICS</b>	<b>KINETICS</b>	<b>STATICS</b>
Yang	Damping	Yin
Craving	Anger	Attachment
Magnetic	Heat	Electric
<i>Energy is stored in:</i>	<i>Energy is lost:</i>	<i>Energy is stored in:</i>
<i>moving quanta</i>	<i>through dissipation</i>	<i>separated quanta</i>
Falling/Throwing	Conflict	Holding, Attaching
Inertia	Drag	Elasticity
Acquisition	Loss	Retention
Coercivity		Retentivity
<b>Emotive Inertia</b>	<b>Emotive Resistance</b>	<b>Emotive Elastance/Rigidity</b>
Inertance	Reluctance	1/Compliance
Need	Grief	Doubt
Habit	Pain	Fear/Terror
Repetition	Loss	Uncertainty
Mass/Inertia	Damping/Friction	Expansion/Compression

# Analogy in Emotional Action

Emotive Charge Dynamics				Emotive Charge Kinetics				Emotive Charge Statics				
Emotive Force	=	Emotive Inertance	× $\phi'$	+	Emotive Resistance	× $\phi$		Emotive Capacitance	× e			
Will	=	Inertance	× Emotive Flux Rate	+	Reluctance	× Emotive Flux		1/Compliance	× Emotive Charge			
Desire	=	Need	×	+	Grief	×		Doubt	×			
Intent	=	Habit	×	+	Pain	×		Fear/Terror	×			
Motive	=	Repetition	×	+	Loss	×		Uncertainty	×			
		Mass/Inertia	×	+	Damping/Friction	×		Expansion/Compression	×			
Emotive Impedance		$\square$			$\square'$			$\square''$				
Inductive Emotive Reactance				Emotive Resistance				Capacitive Emotive Reactance				
High Reactance		Low Reactance		High Resistance		LowResistance		High Reactance		Low Reactance		
Arrogance		Humility		False Belief		Known Truth		Anxiety/Worry		Faith		
Expectation		Allowance		Disappointment		Acceptance		Distrust		Trust		
Habit/Addiction		Spontaneity		Judgment		Admittance		Avoidance		Engagement		
Presumption		Non-Assumption		Criticism		Appreciation		Separation		Alignment		
Prejudice		Openness		Anger		Conductance		Shame/Guilt		Innocence		
Façade		Sincerity		Frustration		Grace		Distance		Proximity		
NEED				DENIAL				DOUBT				
HABIT				ANGER				FEAR				
Emotional Dynamics												
Emotive Force	=	Inductive Emotive Reactance	×	Emotive Flux Rate	+	Emotive Resistance	×	Emotive Flux	+	Capacitive Emotive Reactance	×	Emotive Charge
$F_e$	=	$L_e$	×	$\phi'$	+	$R_e$	×	$\phi$	+	$1/C_e$	×	e
		$\square$	×	$\bigcirc''$	+	$\square'$	×	$\bigcirc'$	+	$\square''$	×	$\bigcirc$

# Inductive Emotional Impedance



Emotive Charge Dynamics		
<b>Emotive Inertance</b>	×	$\phi'$
Inertance	×	<b>Emotive Flux Rate</b>
Need	×	
Habit	×	
Repetition	×	
Mass/Inertia	×	
□		
Inductive Emotive Reactance		
High Reactance		Low Reactance
Arrogance		Humility
Expectation		Allowance
Habit/Addiction		Spontaneity
Presumption		Non-Assumption
Prejudice		Openness
Façade		Sincerity
<b>NEED</b>		
<b>HABIT</b>		



# Resistive Emotional Impedance



Emotive Charge Kinetics		
Emotive Resistance		$\phi$
Reluctance	×	Emotive Flux
Grief	×	
Pain	×	
Loss	×	
Damping/Friction	×	
<div>□'</div>		
Emotive Resistance		
High Resistance	LowResistance	
False Belief	Known Truth	
Disappointment	Acceptance	
Judgment	Admittance	
Criticism	Appreciation	
Anger	Conductance	
Frustration	Grace	
DENIAL		
ANGER		



# Capacitive Emotional Impedance



## Emotive Charge Statics

### Emotive Capacitance

1/Compliance

Doubt

Fear/Terror

Uncertainty

Expansion/Compression

e

× Emotive Charge

×

×

×

×

□"

### Capacitive Emotive Reactance

#### High Reactance

Anxiety/Worry

Distrust

Avoidance

Separation

Shame/Guilt

Distance

**DOUBT**

**FEAR**

#### Low Reactance

Faith

Trust

Engagement

Alignment

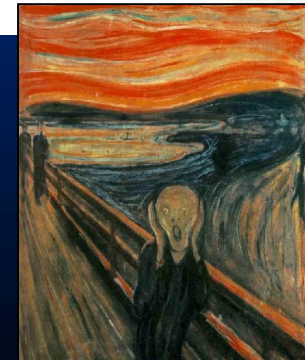
Innocence

Proximity

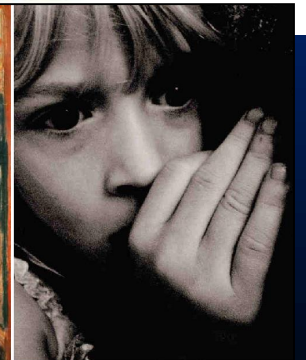
# Emotive Impedance - Summary

## Emotive Impedance

$L_e$ Inductive Reactance	$R_e$ Resistance	$1/C_e$ Capacitive Reactance
<b>Addiction</b>	<b>Pain</b>	<b>Anxiety</b>
Arrogance	Lack	Separation
Expectation	Loss	Delay, Rush
Assumption	Damage	Holding False Belief
<b>Need - HABIT</b>	<b>Anger - DENIAL</b>	<b>Fear - DOUBT</b>
Deception	Rage	Worry
Façade, Pretense	Avoidance	Distrust
Unhealthy Habit	Minimization	Shame



Anxiety



Fear

# Emotive Impedance - Summary

Why do people have so much:

- Emotional Inertia (Habit)
- Emotional Resistance (Denial)
- Emotional Fear (Doubt)

# Emotional Impedance

- People are fundamentally an emotional being
- Most (perhaps all) health concerns have an underlying emotional cause
- Must address the underlying emotions in order to make a sincere soul shift forward
- Any treatment of symptoms (effects) will have little effect without the release of the emotional causes

# Emotional Impedance

- Blockage or denial of **held emotions**
- Stuckness, habits, patterns of avoidance
- Solution: **free up the emotional flow**
- Face the truth with **honesty and sincerity**
- Spend plenty of time **feeling, exploring** and **discussing** with others or yourself
- Maintain an **attitude of humility** (opposite of arrogance, thinking you know it all)



# Emotional Impedance

- Every person has **fears**. The remedy is to develop **faith**.
- Most are **unaware** of their fears due to **denial**
- **Avoidance** is a form of **denial**
- **Denial** is typically **invisible** to its holder
- **Denial** is **difficult** to notice or identify
- Every person has **habits**, mostly unhealthy
- Most people tend to automate their routines
- **Habits** (e.g. judgment, procrastination, avoidance) are a form of **denial**

# Emotional Impedance

- Our emotional reluctance to change is the primary obstacle to our progress
- We each must accept total personal responsibility for our condition, as well as for improving it
- Reducing our personal resistance to change and truth is the key factor to best health and relationship with God

# Emotional Injury: Imprinting of Stress

Upon birth, the newborn is faced with a significant change in living conditions. Survival is uncertain and contingent on behavior of others who are around.

- **Brainstem (Reptilian Brain)**

Autonomic Nervous System (Reflex Response)  
Establishment of baseline response threshold  
Survival fears and anxiety

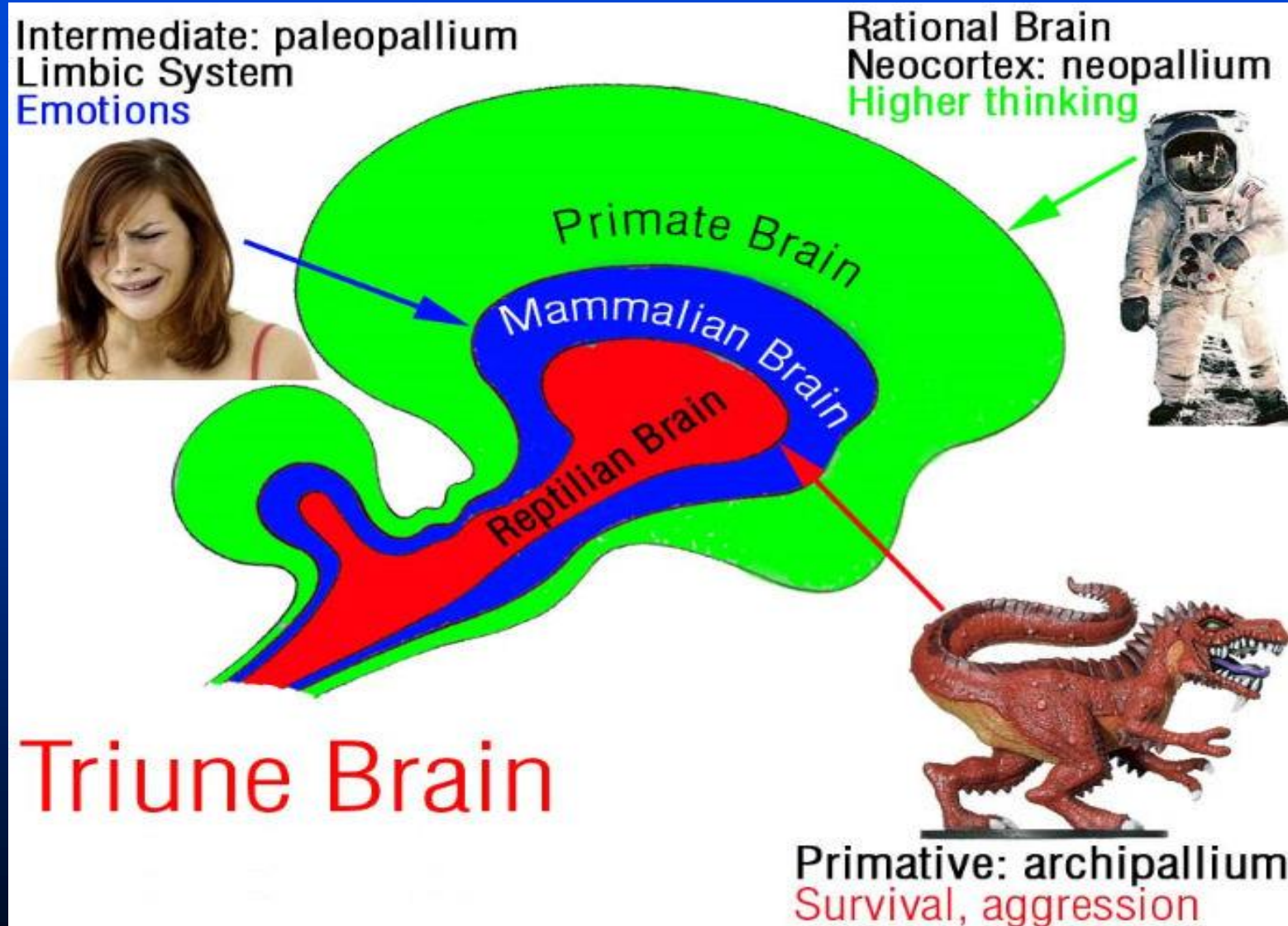
- **Limbic Brain (Emotional Brain)**

Memories and feelings

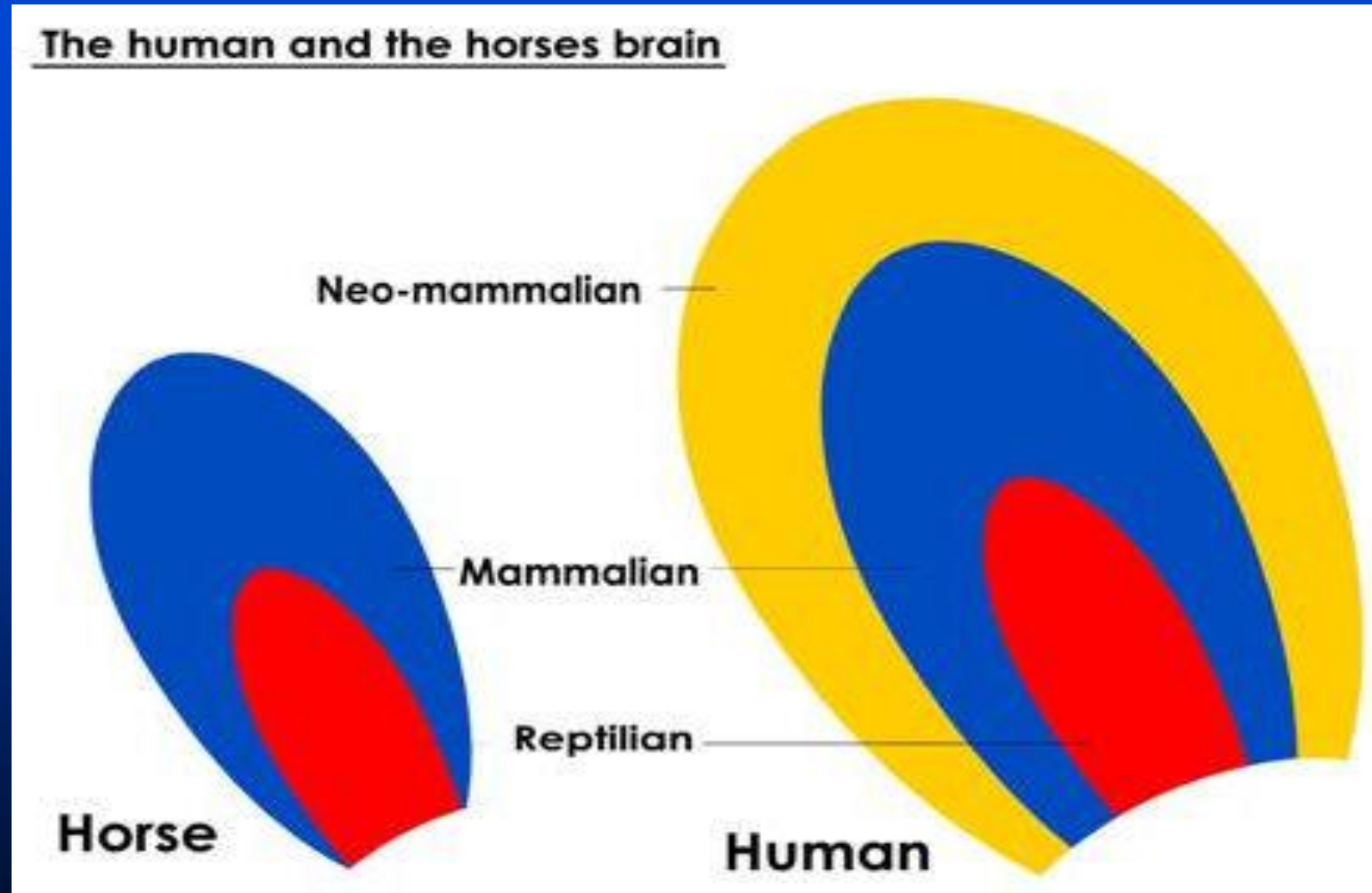
- **Neocortical Brain (Thinking Brain)**

Cognitive response

# Triune Brain



# Triune Brain





# Early Imprinting of Brain (various survival fears)

## Feelings Matter

by Ceanne deRohan

**Feelings Matter**  
Keys to the Unexplored Self

by Ceanne DeRohan

with Special Thanks to Nicolas Masucci, M.D.

Four Winds Publications

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For more info, see [birthpsychology.com](http://birthpsychology.com)

# Emotional Trauma in the Womb

by Samuel Lopez De Victoria, PhD

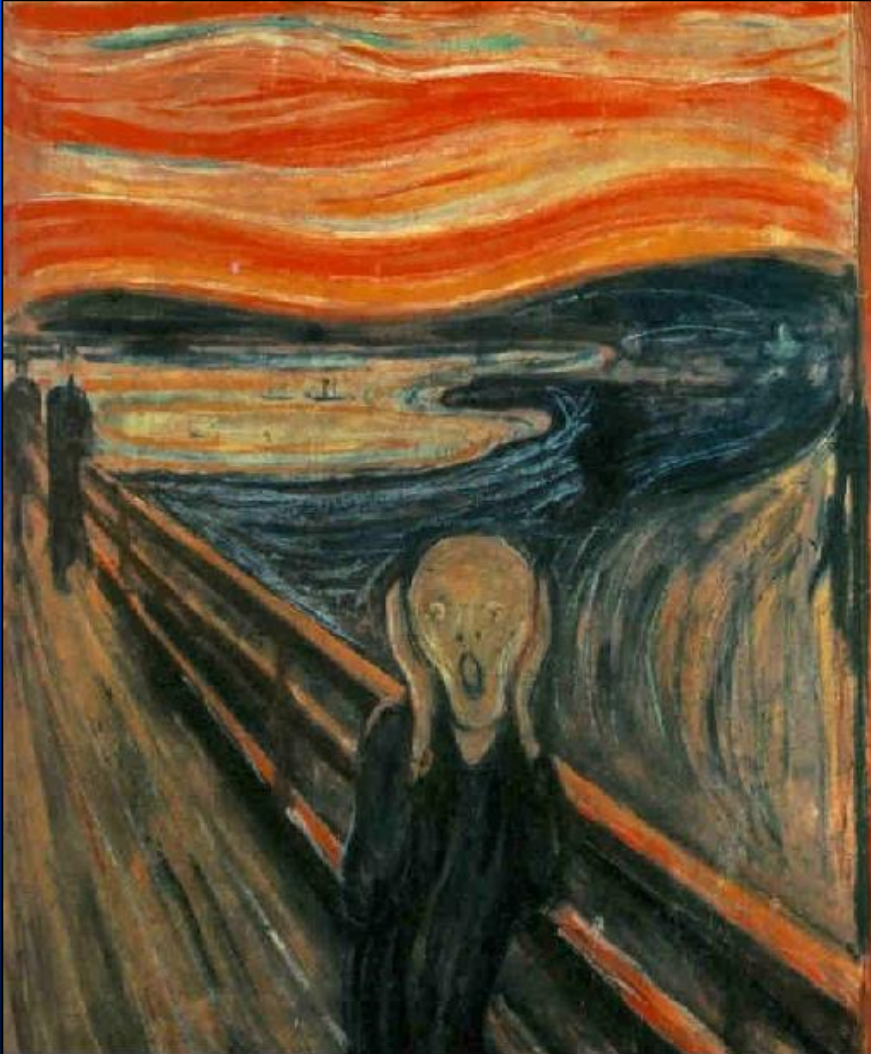
- “My model and experience working with patients is that consciousness can be sensed beginning in month 4 of gestation.
- One researcher that I recently came across is Tessa Roseboom, a Dutch researcher who studied the survivors of the Famous WWII Dutch Famine. In my humble opinion, there appears to be evidence of in utero (in womb) trauma in these persons who have experienced extra-normal issues in their adult life.”

# Emotional Trauma in the Womb

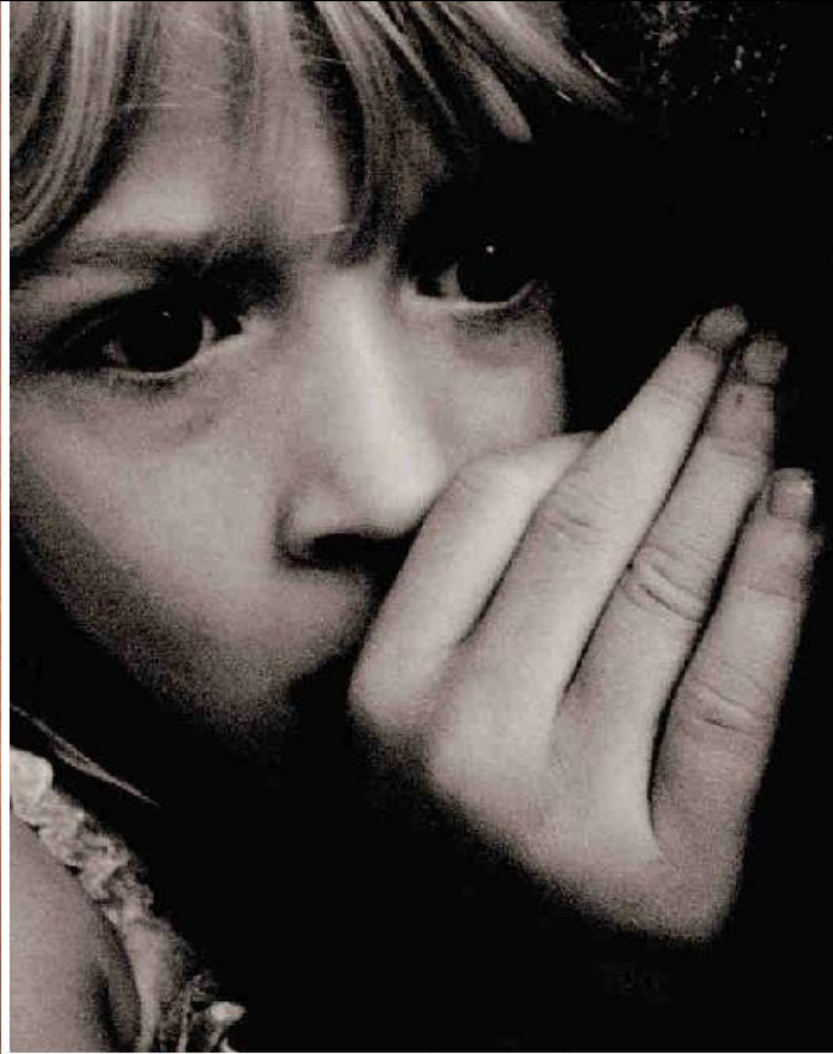
## Sample References

- **The Effects of Prenatal Stress on Child Behavioural and Cognitive Outcomes Start at the Beginning.** Vivette Glover, MA, PhD, DSc, Institute of Reproductive and Developmental Biology, Imperial College London, United Kingdom. *Encyclopedia on Early Childhood Development*, January 2011.
- **Prenatal exposure to air pollution linked to impulsivity, emotional problems in children.** *Science Daily*, March 17, 2016. Summary: Exposure to common air pollutants during pregnancy may predispose children to problems regulating their thoughts, emotions, and behaviors later on, according to a new study.

# Anxiety and Fear



**Anxiety**



**Fear**



# Emotional Trauma

- The impact of **early-life emotional injuries** on our whole life is extremely significant.
- **Prenatal conditions** influence the child's emotional health.
- Conditions during infancy further affect emotional health due to **imprinting of reptilian brain with survival fears**.
- The remedy is to **revisit, accept, and release** the various imprinted fears.

# Emotion Dynamics

- The general goal is to **increase flow** by **reducing emotional impedance** to change and truth
- The **reactive** components are time-varying and **store energy** as either in motion (**inductive**) or separation (**capacitive**).
- The method is to map out one's emotional blockages, identifying the three types of impedance as in an electrical network.
- Then the standard equations can be applied to the analysis of a person's emotional response characteristics.

# Applied Emotion Dynamics

## *for Emotional Health Care*

- The model is intended to represent **how emotions flow** and are processed.
- The model can be applied to the objective of improving one's emotional health.
- The main concern is that **many people have excessive emotional impedance**, which is emotional blockage. Example: emotionally shut down
- **Healthcare objective: Reduce emotional blockages.**

# Applied Emotion Dynamics

*for Emotional Health Care*

Given three types of **emotional impedance** (blockages impairing emotion flow),

- Inductive – having excess habit, arrogance
- Resistive – flow restriction: denial, anger
- Capacitive – holding onto doubt and fear

**there should be three types of remedies**



# Applied Emotion Dynamics

## *for Emotional Health Care*

The first step is to identify specific impedance.

A good approach to getting clarity is making lists:

- **Habit** – list all habits, needs, expectations
- **Denial** – list all things that make you feel anger, judging, critical, disappointed, frustrated
- **Doubt** – list all fears, and all things that make you feel anxiety, worry, shame or guilt, and (importantly) things that you avoid.

# Applied Emotion Dynamics

## *for Emotional Health Care*

Take a month or so to build up the lists. Sort the lists in order of priority. Also make positive lists:

- Passions – list everything you feel passionately about
  - Things you love and that you love to do
  - Things you hate and that you hate to do
- Gratitude – list all things that you appreciate and are grateful for.
- Attractions – list all things that you are attracted to.
- Desires – list all things that you desire in life.
- Quirks – list all things that are unusual about yourself.

# Applied Emotion Dynamics

## *for Emotional Health Care*

It's helpful to discuss the lists with another person, such as a partner, friend, or counselor.

**These lists will help uncover invisible denials:**

- The Desires and Passions and other positive lists are clues to any limitations of one's will.
- The Habits list are clues to one's façade.
- The Denial/Judgment lists are clues to denial/anger blockages.
- The Fears/Doubts lists are clues to your held terror.

# Emotional Impedance

## Habits, Denials, Fears

People feel strong resistance to change.

Health Consultant's #1 Priority:

Get client to **WANT** to improve lifestyle

HOW?

Find emotional reason for **HABITS**

Uncover **DENIALS**

List your **FEARS**

# Applied Emotion Dynamics

It's helpful to strive to attain these low-impedance qualities:

## Emotive Charge Dynamics

Emotive Inertance	$\times$	$\phi'$
Inertance	$\times$	Emotive Flux Rate
Need	$\times$	
Habit	$\times$	
Repetition	$\times$	
Mass/Inertia	$\times$	



## Inductive Emotive Reactance

### High Reactance

Arrogance  
Expectation  
Habit/Addiction  
Presumption  
Prejudice  
Façade

NEED

HABIT

### Low Reactance

Humility  
Allowance  
Spontaneity  
Non-Assumption  
Openness  
Sincerity

## Emotive Charge Kinetics

Emotive Resistance	$\times$	$\phi$
Reluctance	$\times$	Emotive Flux
Grief	$\times$	
Pain	$\times$	
Loss	$\times$	
Damping/Friction	$\times$	



## Emotive Resistance

### High Resistance

False Belief  
Disappointment  
Judgment  
Criticism  
Anger  
Frustration

DENIAL

ANGER

### LowResistance

Known Truth  
Acceptance  
Admittance  
Appreciation  
Conductance  
Grace

## Emotive Charge Statics

Emotive Capacitance	$\times$	$e$
1/Compliance	$\times$	Emotive Charge
Doubt	$\times$	
Fear/Terror	$\times$	
Uncertainty	$\times$	
Expansion/Compression	$\times$	



## Capacitive Emotive Reactance

### High Reactance

Anxiety/Worry  
Distrust  
Avoidance  
Separation  
Shame/Guilt  
Distance

DOUBT

FEAR

### Low Reactance

Faith  
Trust  
Engagement  
Alignment  
Innocence  
Proximity



# Emotional Impedance

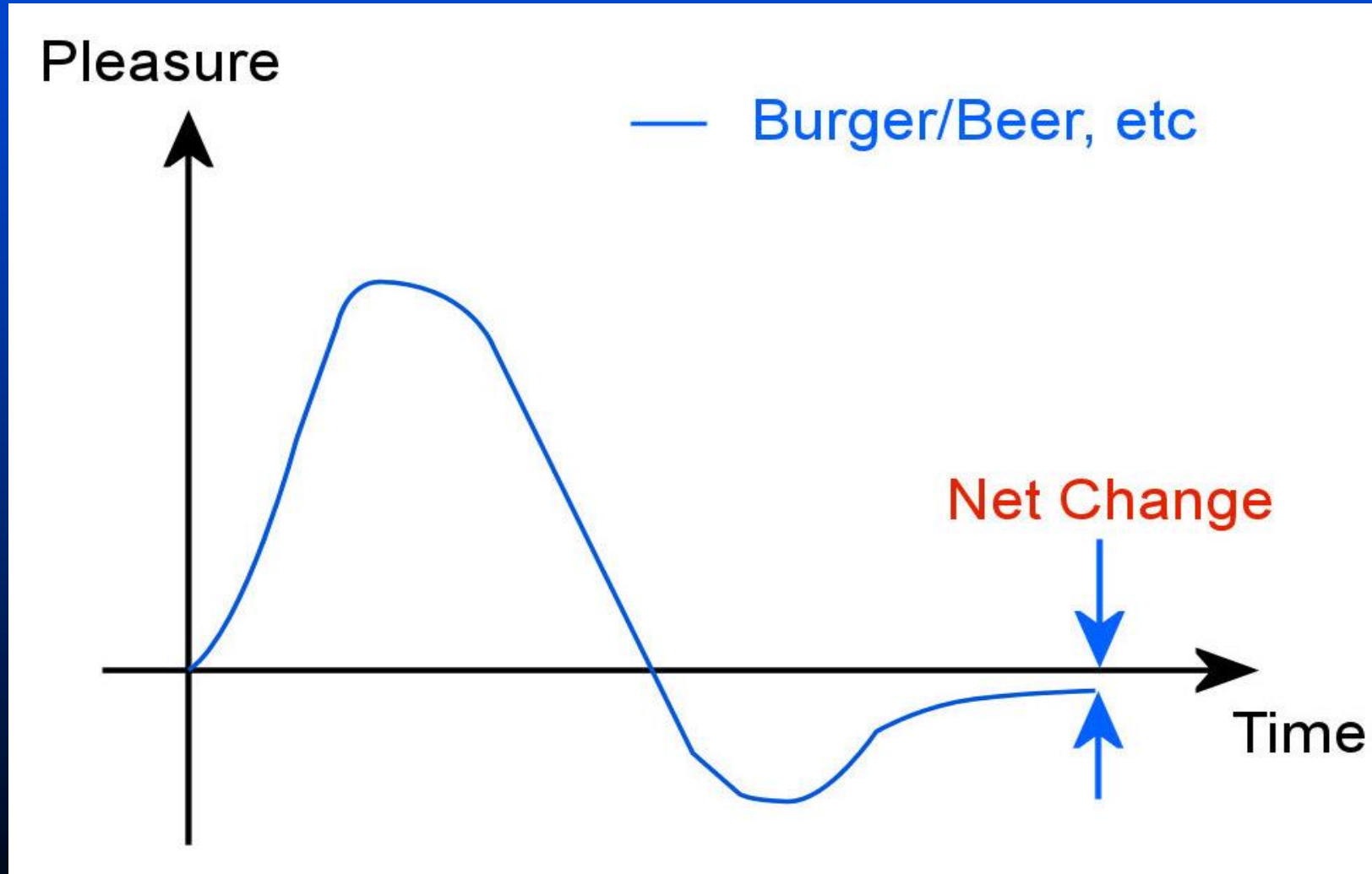
## Habit Modification

How to deal with unhealthy habits

- Explore all emotions relating to **HABITS**
- Observe emotions that arise when habit is not satisfied
- Recall how you usually feel before, during, and after **unhealthy** habit satisfaction. Compare to how you usually feel before, during, and after a **healthy** habit satisfaction.

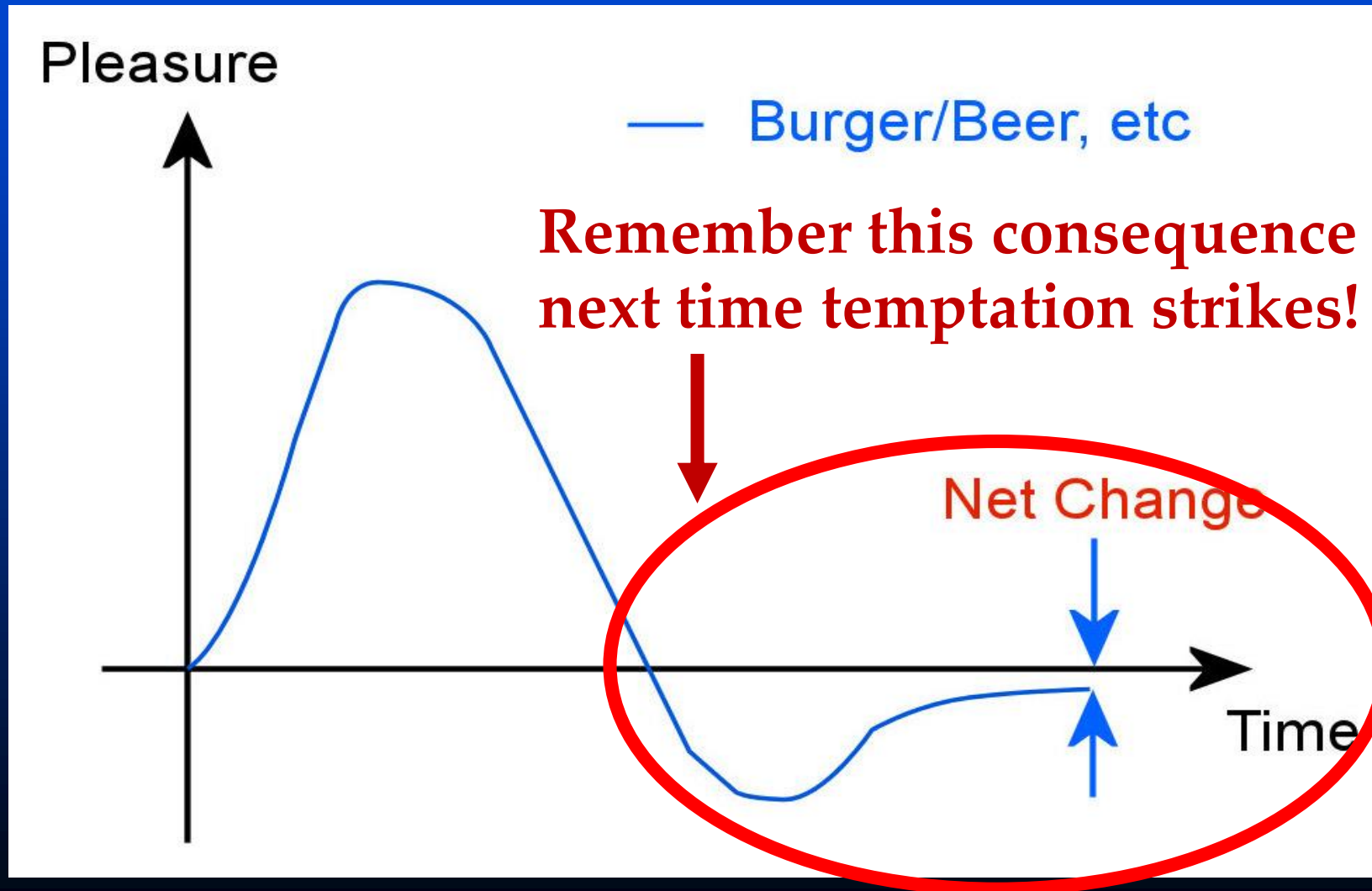
# Emotion Curve – Example 1

Arc of Temptation – Burger & Beer



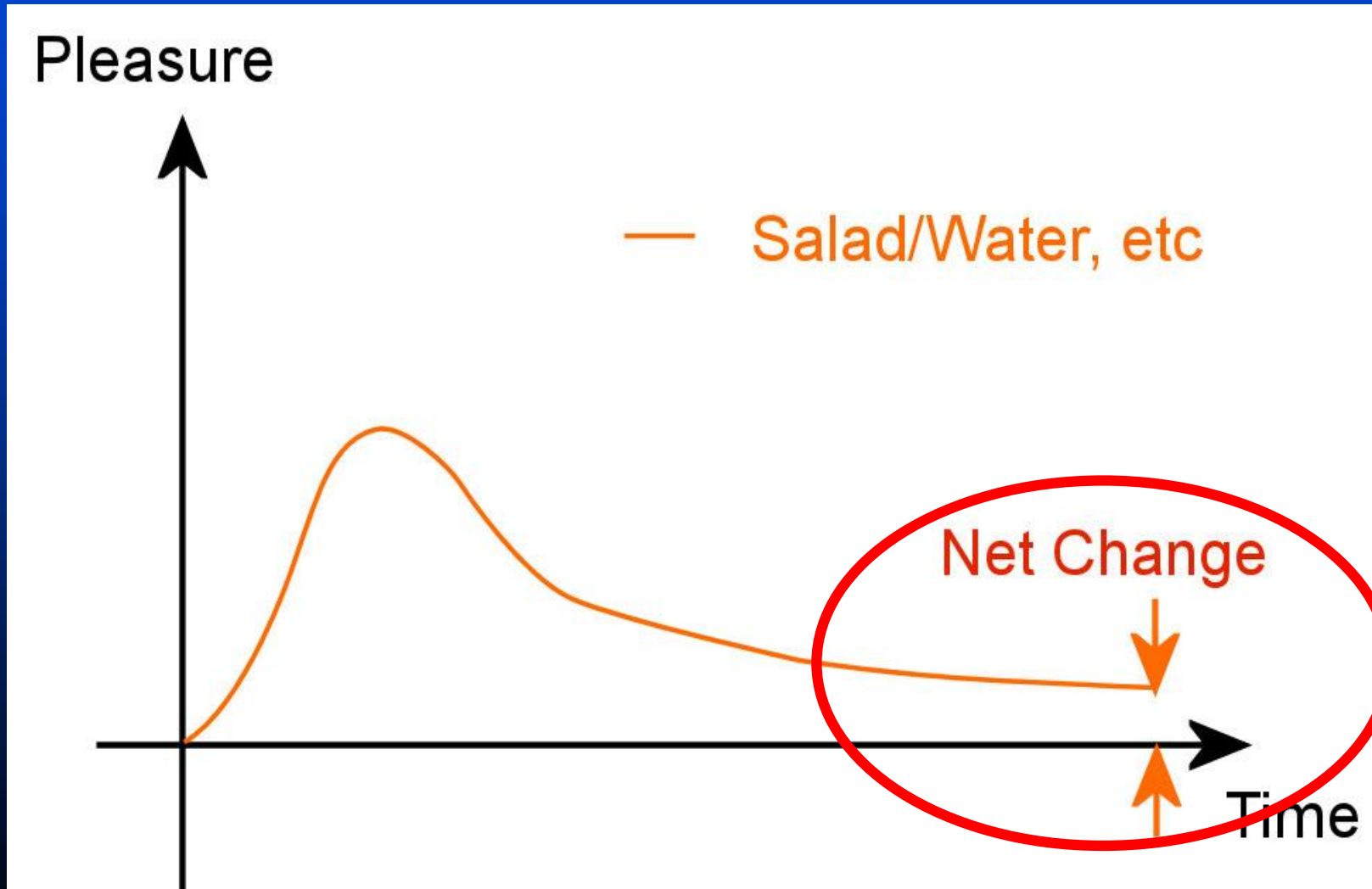
# Emotion Curve – Example 1

## Arc of Temptation – Burger & Beer



# Emotion Curve Example 2

## Arc of Temptation – Salad & Water



# Any Resistance to a Salad Every Day?

## The secret to happiness? Eat more fruit and veg! Munching up to 8 portions a day 'improves well-being within months'

- Study found the more portions we eat, the better life satisfaction score
- Going from none to 8 portions was likened to getting a job if unemployed
- Believe reason could be down to increase in antioxidants in the blood

By KATE PICKLES FOR MAILONLINE

PUBLISHED: 05:48 EST, 11 July 2016 | UPDATED: 06:08 EST, 11 July 2016

It's long been said that eating fruit and vegetables is good for you health - but now it seems it can make you happier too.

A new study of 12,000 people found the more we eat, the better life satisfaction scores we have. Happiness benefits were detected for each extra daily portion of fruit and vegetables up to eight portions a day.

Researchers at the University of Warwick found the well-being improvements occurred within two years - far faster than health benefits.

In the study, those who changed from almost no fruit and vegetables to eight portions a day experienced an increase in life satisfaction equivalent to moving from unemployment to having a job.



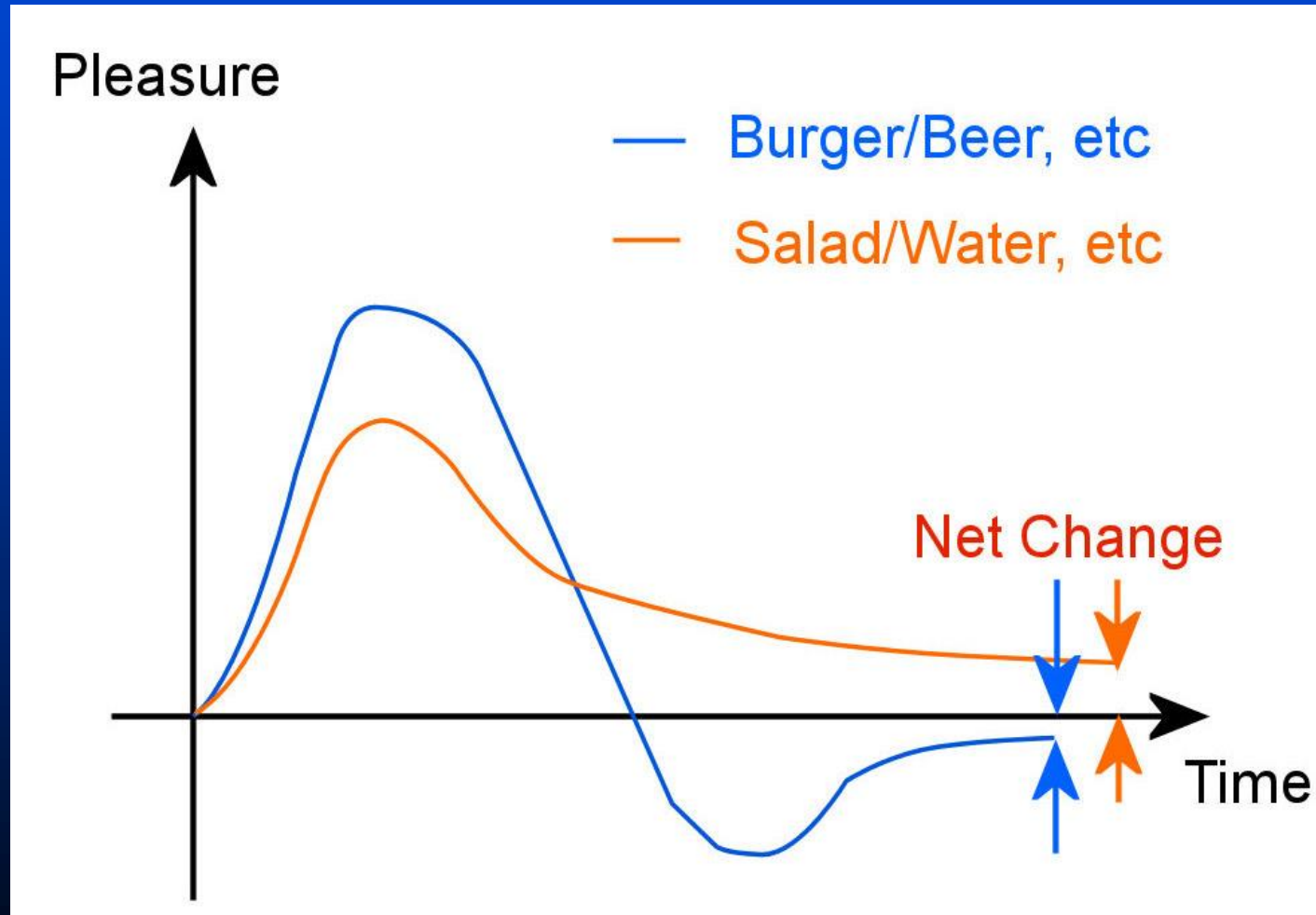
GETTY IMAGES /

Eating up to eight portions of fruit and vegetables a day saw improvements to people's happiness scores



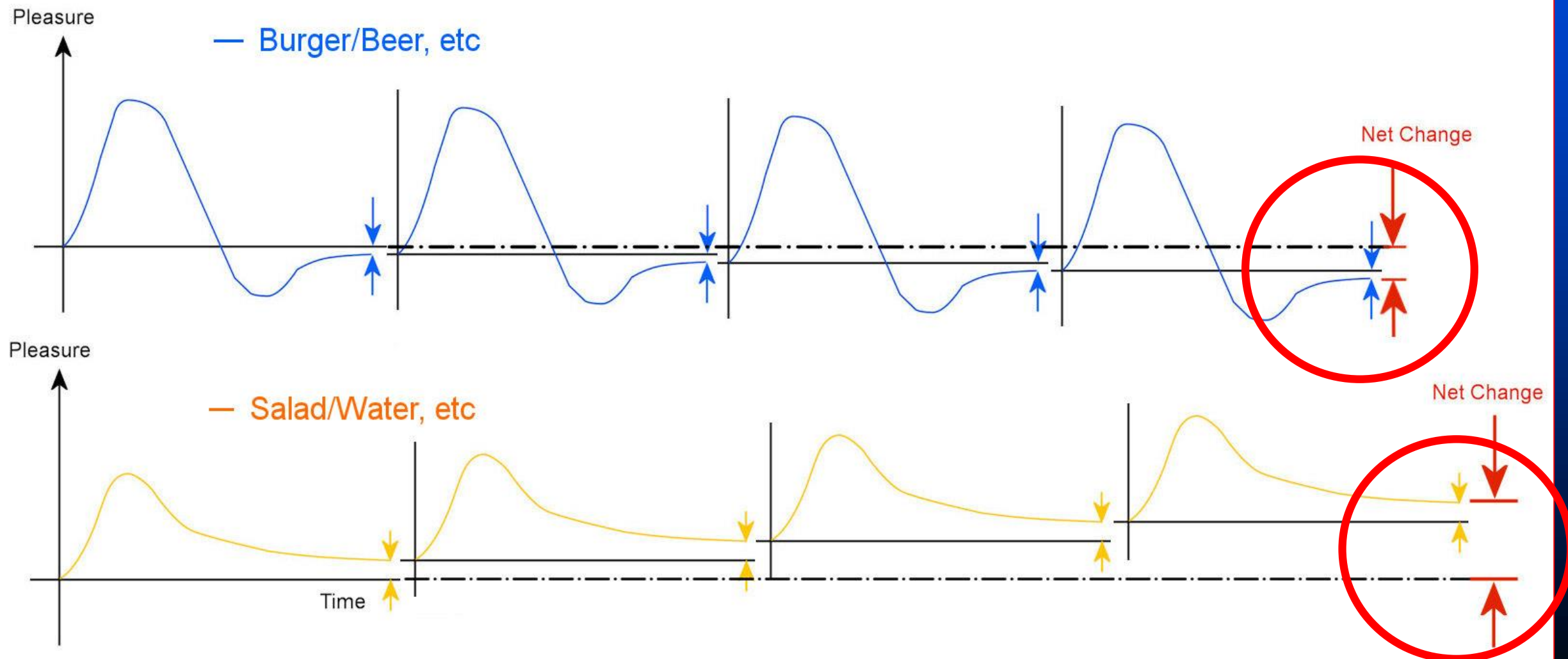
# Emotion Curve Examples 1 & 2

## Arc of Temptation and the Pleasure Curve

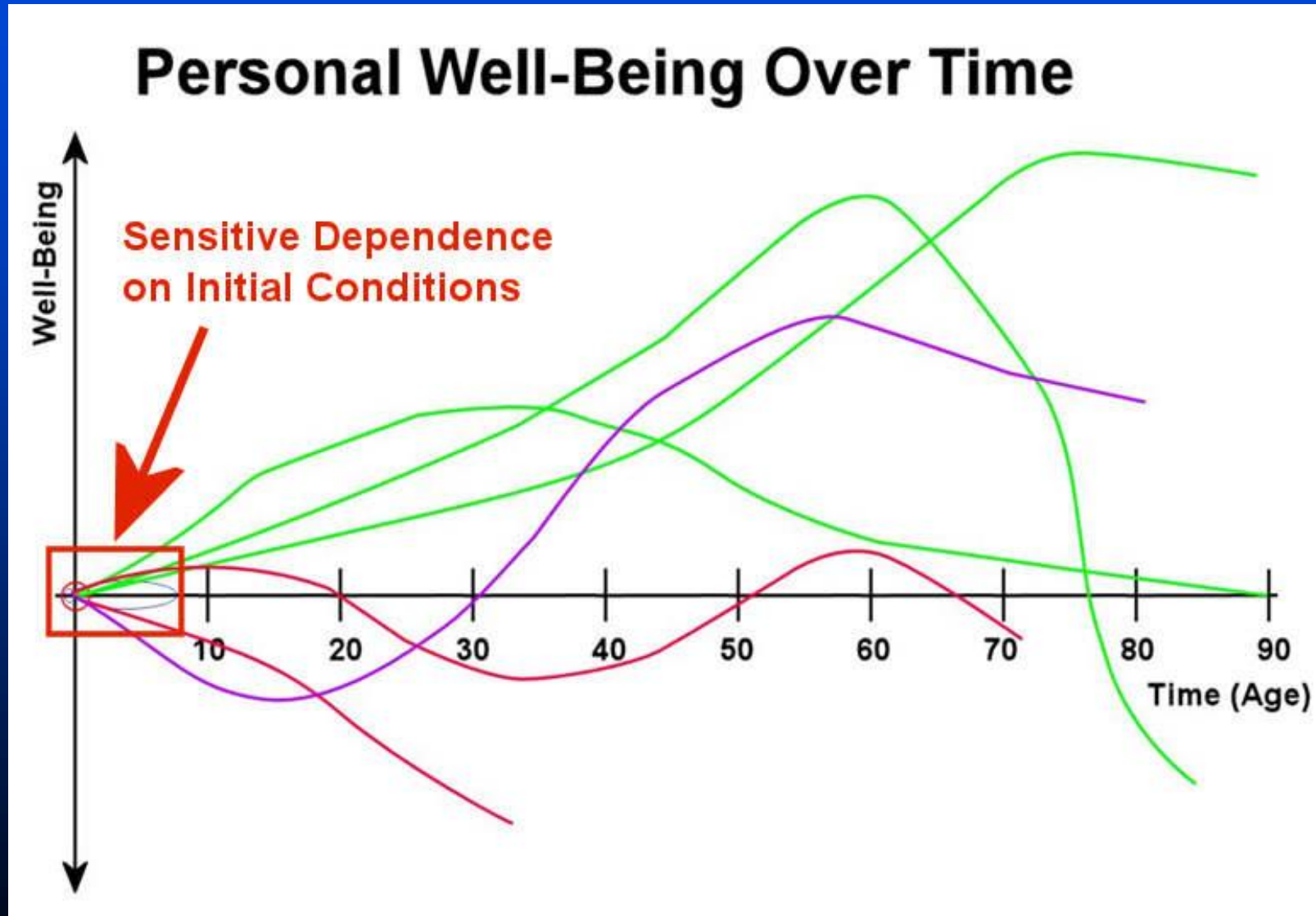


# Emotion Curve Examples 1 & 2

## The Pleasure Curve – Long Term Effects



# Emotion Curve

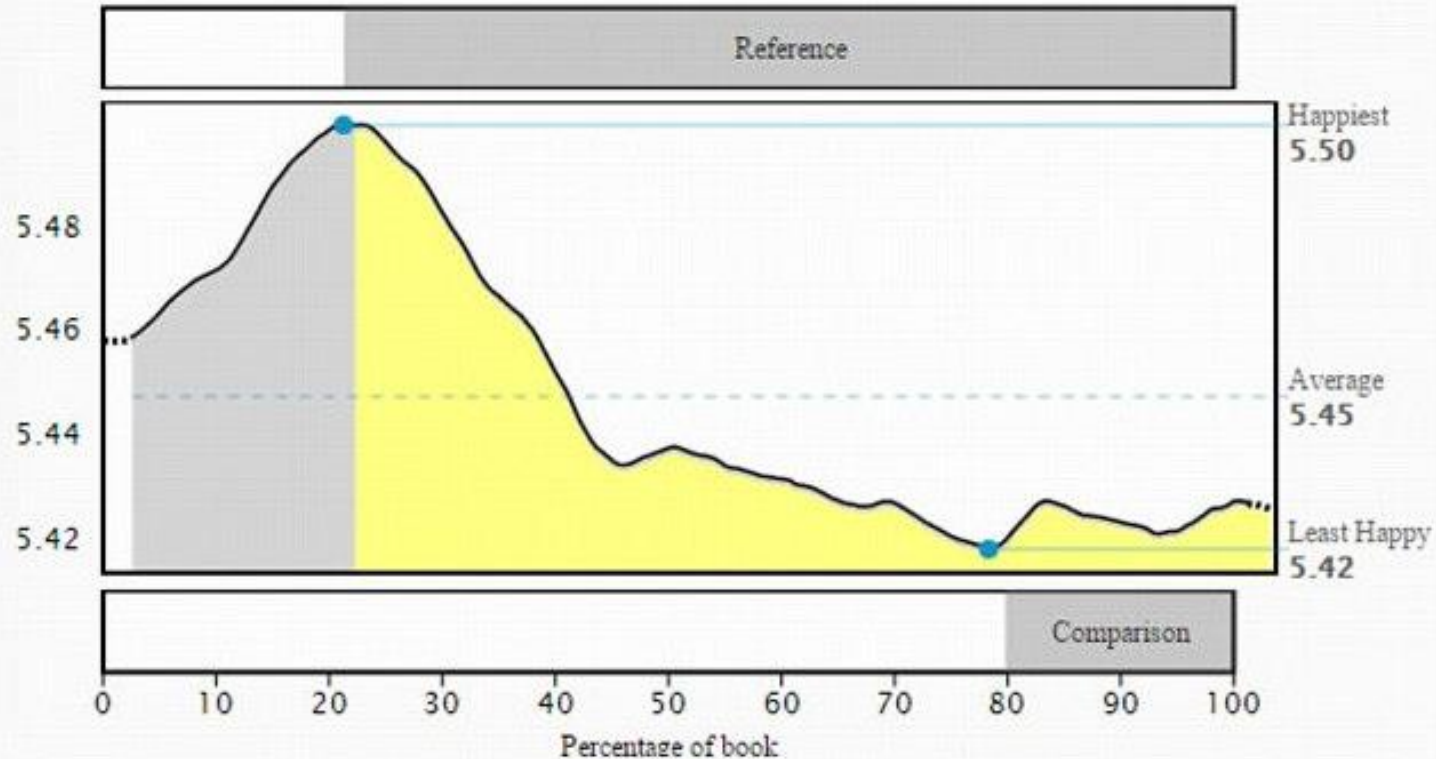


# Emotion Curve

The concept of an **Emotion Curve** has been used to compare **story arcs**. Software based **lexical analysis** was applied to **1700 classic stories**, where the words used along the story line were scored on a “happiness scale” to see and show **how the level of happiness changed throughout the story arc**.

# Emotion Curve

## Emotion Curve for Romeo & Juliet



Researchers scanned over 1,700 stories into a computer and used data-mining to find words that convey positive or negative emotion in order to reveal the most commonly used plots. Shown in the graph is one of the 6 plots, 'Steady fall' and results when the team analyzed Romeo and Juliet

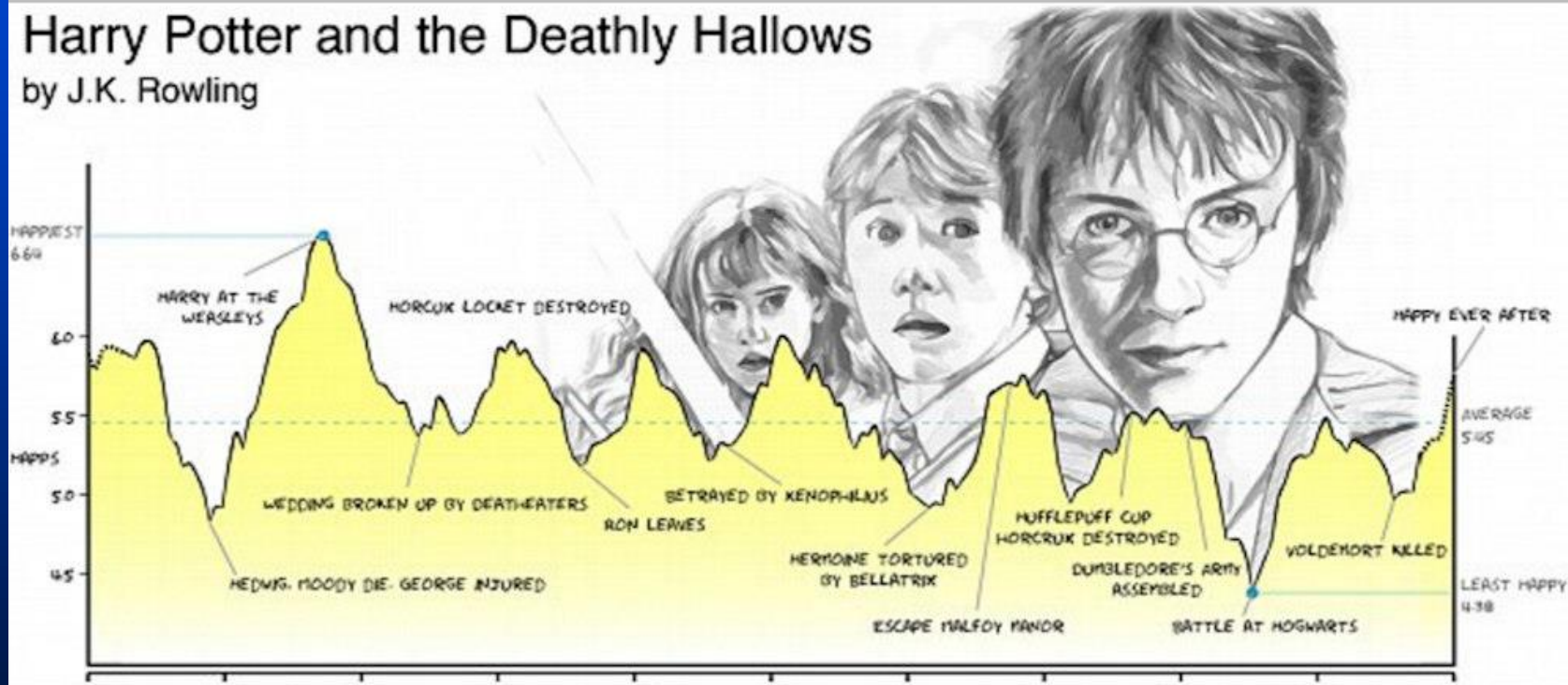


# Emotion Curve

Emotion Curves are used to analyze stories & films

## Harry Potter and the Deathly Hallows

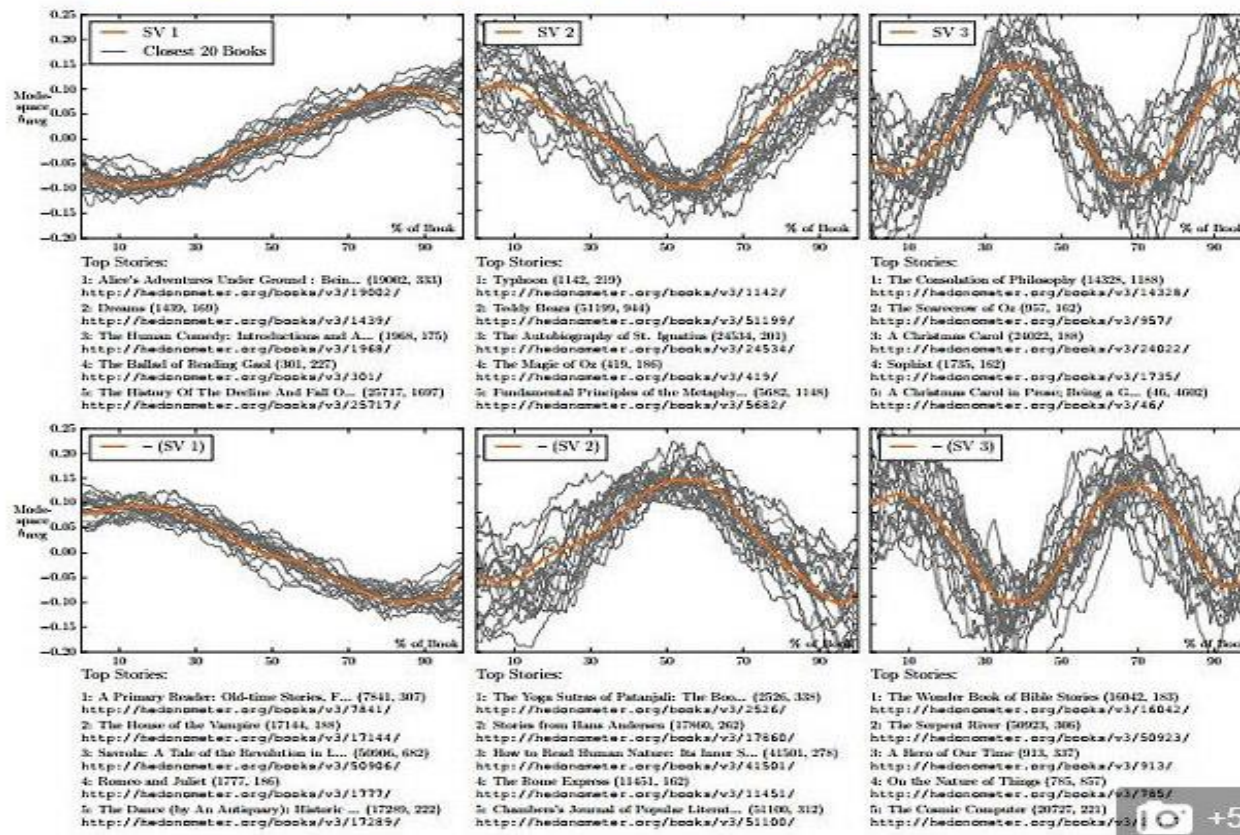
by J.K. Rowling



A major new analysis of over 1,700 stories identified the core plots 'which form the building blocks of complex narratives'. Shown, the plot of Harry Potter and the Deathly Hallows, which researchers found has the 'rise, fall rise' plot.

# Emotion Curve

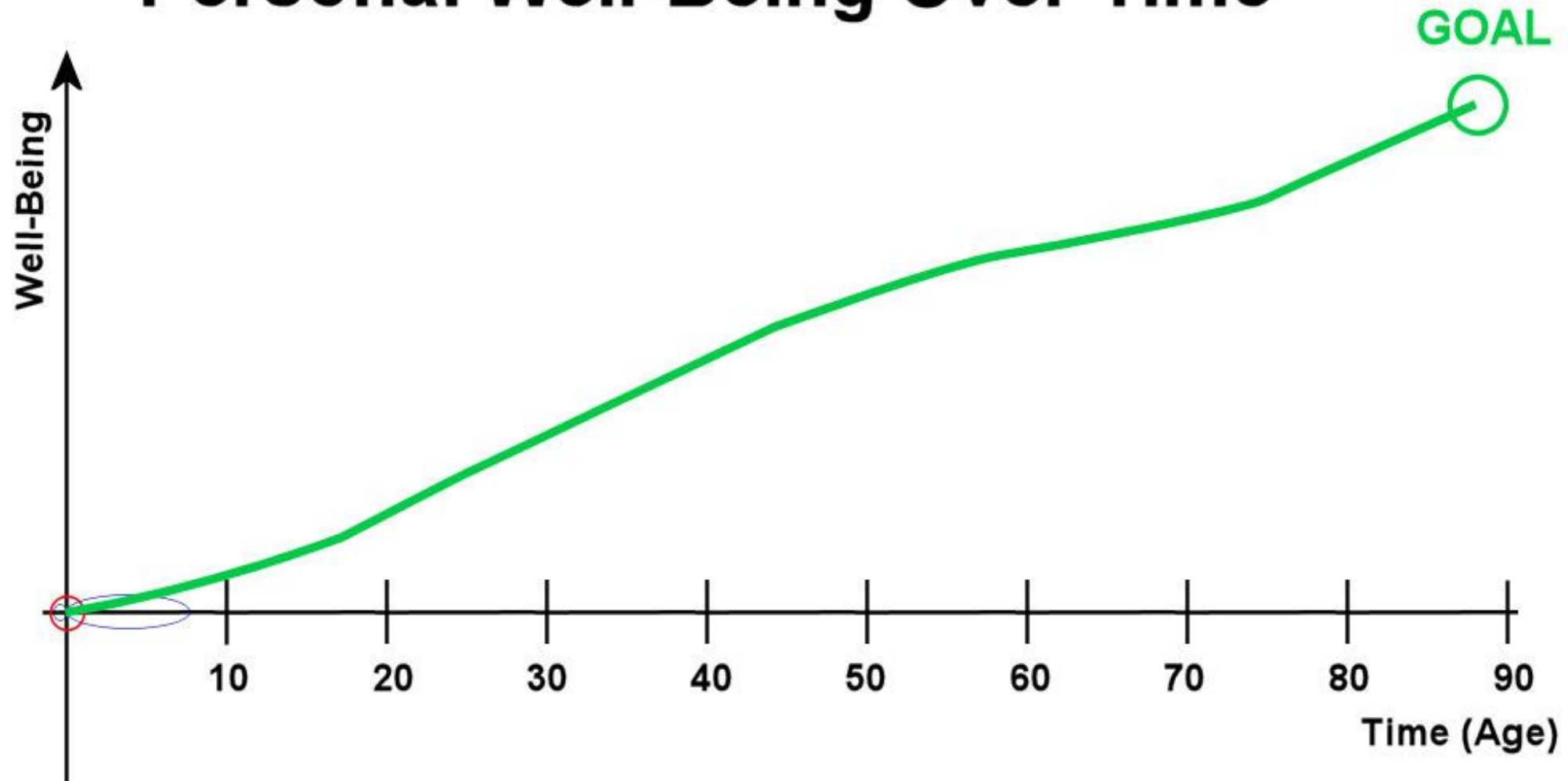
From a study of 1,700 stories, researchers found just SIX types of Emotion Curves



From Cinderella and Romeo and Juliet to the stories of Oedipus and Icarus, almost every story conforms to one of just six plots, researchers have claimed. The six in order: Rise, Fall-rise, Rise-fall-rise, Fall, Rise-fall-rise, Fall-rise-fall

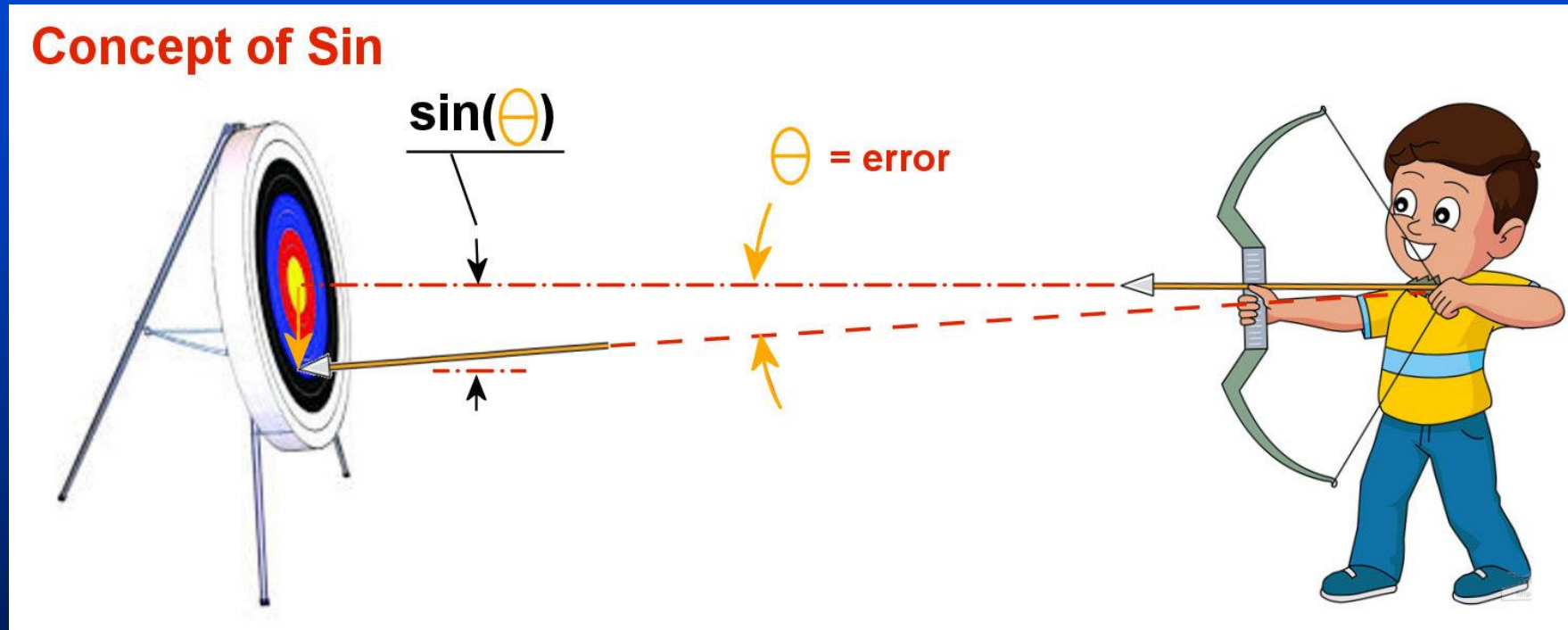
# Emotion Curve - Ideal

## Personal Well-Being Over Time



# How to Reduce Emotional Impedance

Step 1: Recognize that you fall short of the mark (humility)



Step 2: Always seek to better understand & improve your condition  
(error detection and correction)



## Quotes on Habits – Negative Aspect

Feeling sorry for yourself, and your present condition, is not only a waste of energy but the **worst habit** you could possibly have. -- *Dale Carnegie*

The real key is to live in an environment where the mind feels free to choose the right thing instead of being compelled by **habit and inertia** to choose the wrong thing. -- *Deepak Chopra*



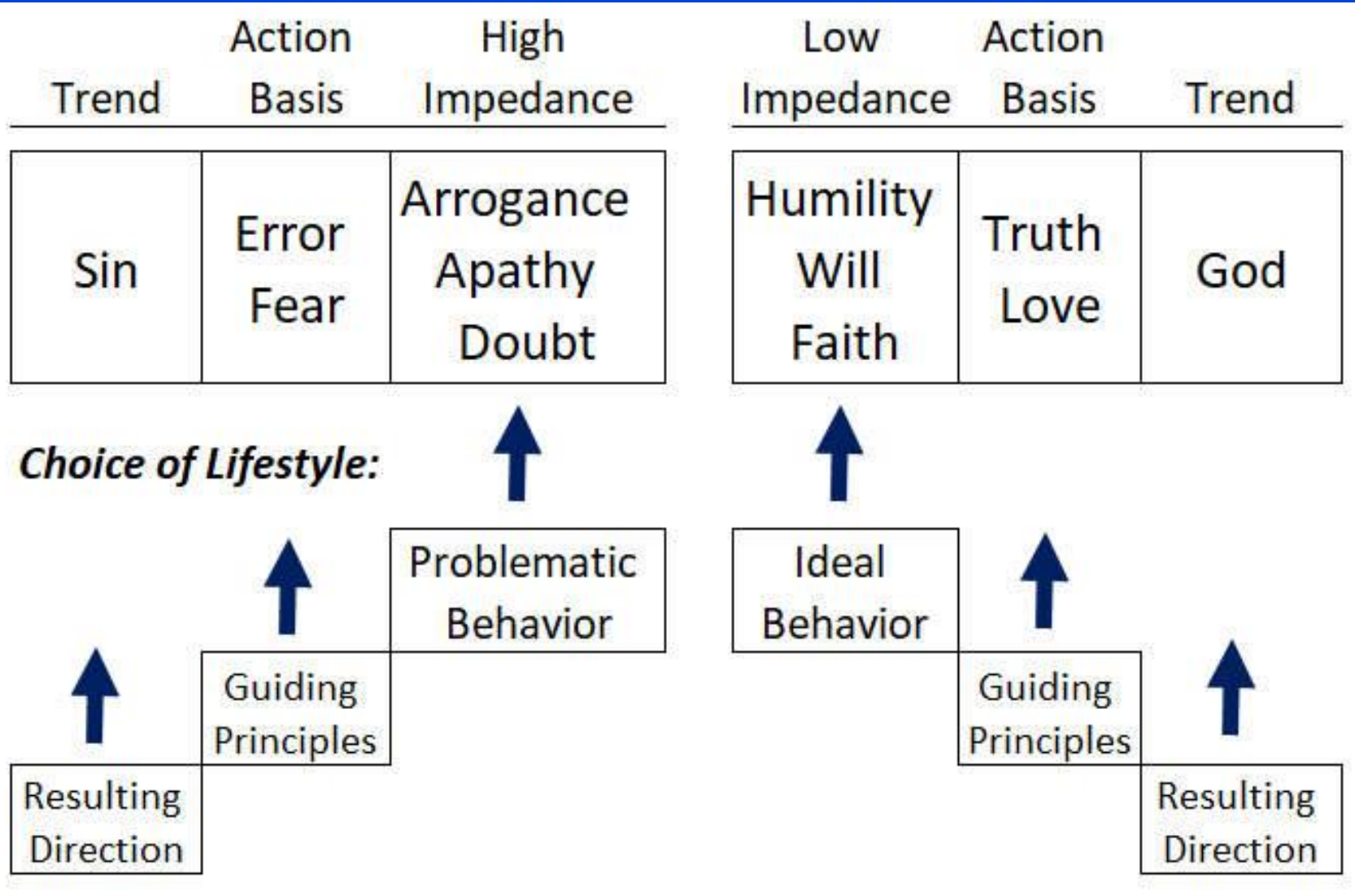
## Quotes on Habits – Positive Aspects

Excellence is an art won by training and habituation: we do not act rightly because we have virtue or excellence, but rather have these because we have acted rightly; these virtues are formed in man by doing his actions; **we are what we repeatedly do. Excellence, then, is not an act but a habit.**

– *Will Durant, The Story of Philosophy (1926)*

# Lowering Emotional Impedance

## Improves your ability to connect with God



# Special Note

This video (Emotion Dynamics) is Part 2 of a 2-part presentation.

Part 1 is “Analogy and Duality” and explores the theoretical basis for the circuit impedance model of Emotion Dynamics.

# Thank you!

*For more info:*

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