

Dr Joel W.Hughes PhD

The Science & Psychology
of
HUMAN FACTORS

The Need for Human Factors

CAP718

The following quotation illustrates the need for *Human factors*:

“Because civil aircraft are designed to fly safely for unlimited period of time provided defects are detected and repaired, safety becomes a matter of detection and repair rather than one of aircraft structure failure.

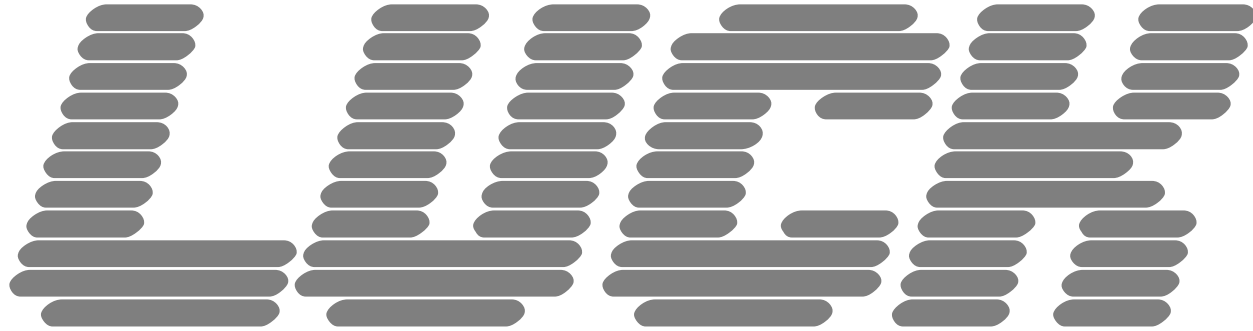
In an ideal system, all defects which could affect flight safety will have been predicted in advance, located positively before they become dangerous, and eliminated by effective repair. In one sense, then, we have changed the safety system from one of physical defects in aircraft into one of errors in complex human-centred systems.”

Vernacular

WHAT THEN IS

Religious

Chance
Fortuity
Fluke
Fate
Destiny
Blessing
Break



Miracle
Fate
Destiny
Blessing
Providence

When your Preparation meets
with an Opportunity

Don't slip into denial and make excuses for what happens to you,
Take control of your life and the responsibility with it!!

This Program is about Thinking

Everything you are,

Is a direct result of what you have thought.

So! What we think becomes, what we say!!

And, what we say becomes, what we do!!

And what we do becomes, Who we are!!

And Who we are, is how People perceive us!!

Human performance limitations

Knowledge (IQ) defines behaviour, " What you can do "
Emotions (EQ) controls behaviour, " How you will do it "

WHO AM I?

The "Who Am I" defines your behavioural successes & failures

The Prefrontal Cortex

**The
Intellectual
Centre**

knowledge

Association of ideas

Reasoning

Philosophy

Awareness

Skills

logic

Understanding

Your IQ

The Limbic System

**The
Emotional
Centre**

Love

Hate

Happy

Sad

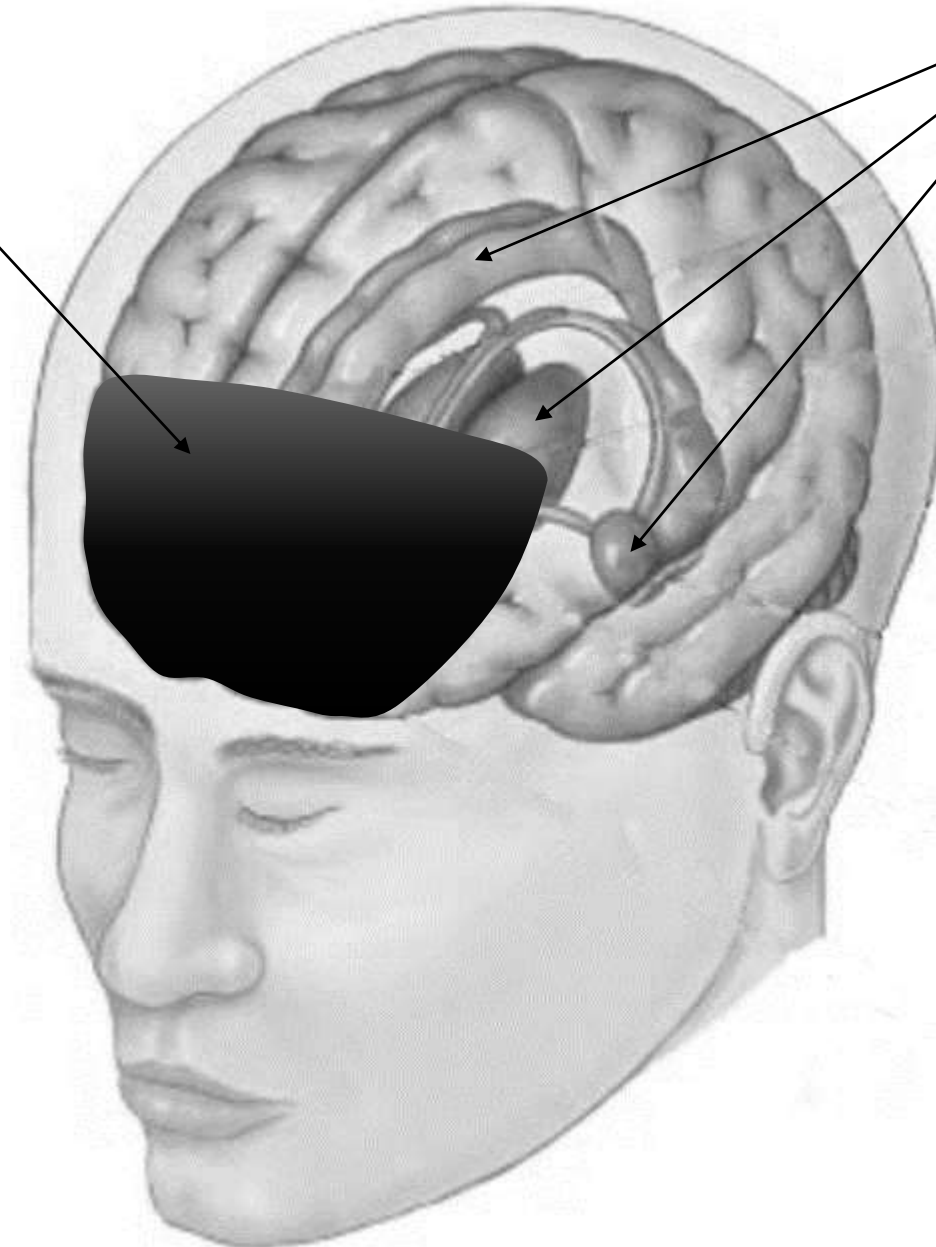
Excited

Depressed

Anger

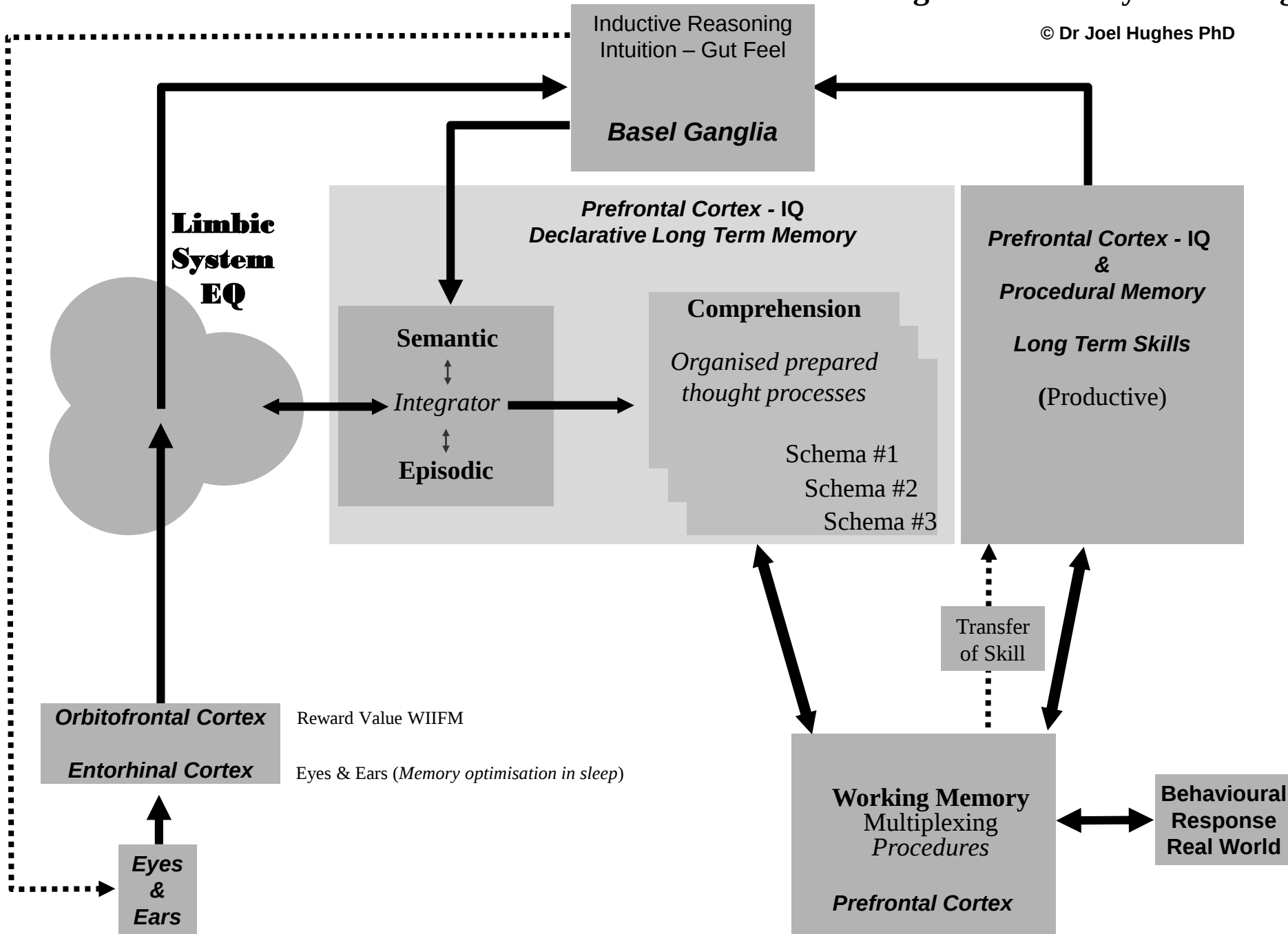
Rage

Your EQ



Cognitive Memory Processing

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So!! In order to ensure optimum Human Performance
it may be necessary to be mindful of our
perception and understanding of INTUITION.

Unintentionally we make our most impetuous, and critical decisions using
the gift of intuition.

What then is Intuition?

The Oxford Dictionary of Psychology

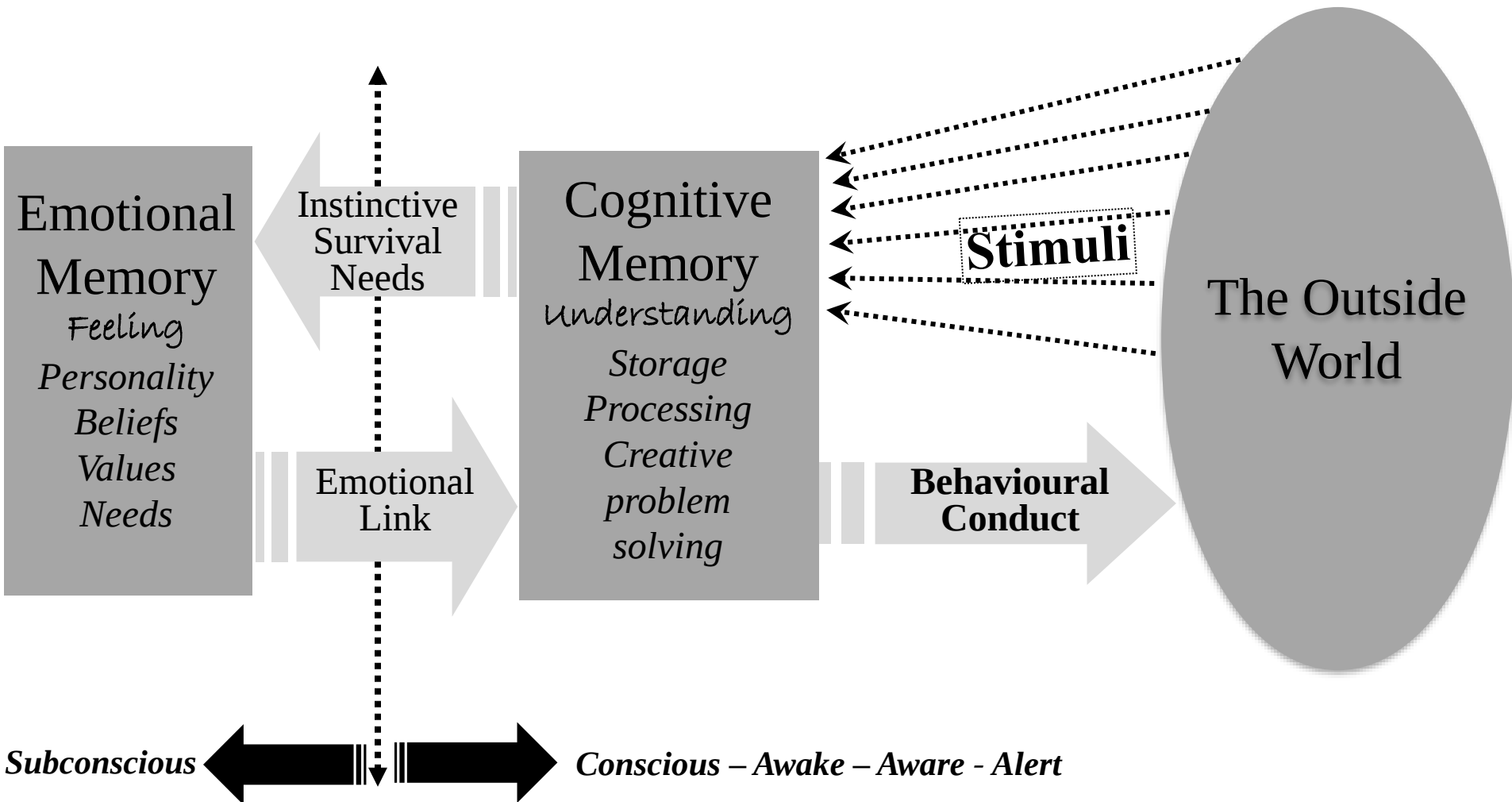
1. *Immediate understanding, knowledge, or awareness, derived neither from perception nor from reasoning.*
2. *Something that is known or understood without proof or evidence*

Human Factors

AFFECTIVE MEMORY (EQ)

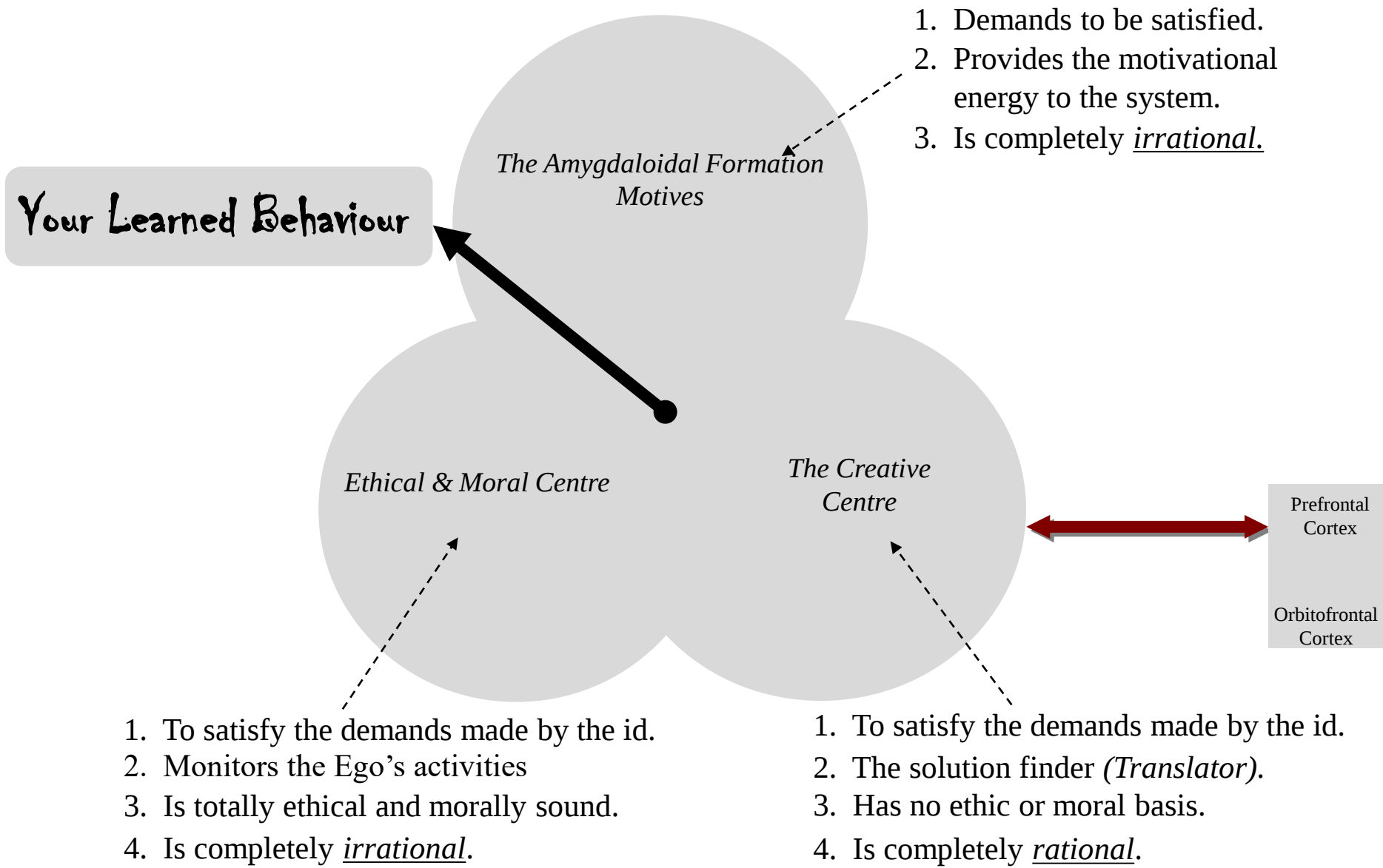
The Emotional System

The Process of Human Interface



The Limbic System (*Sub-conscious*)

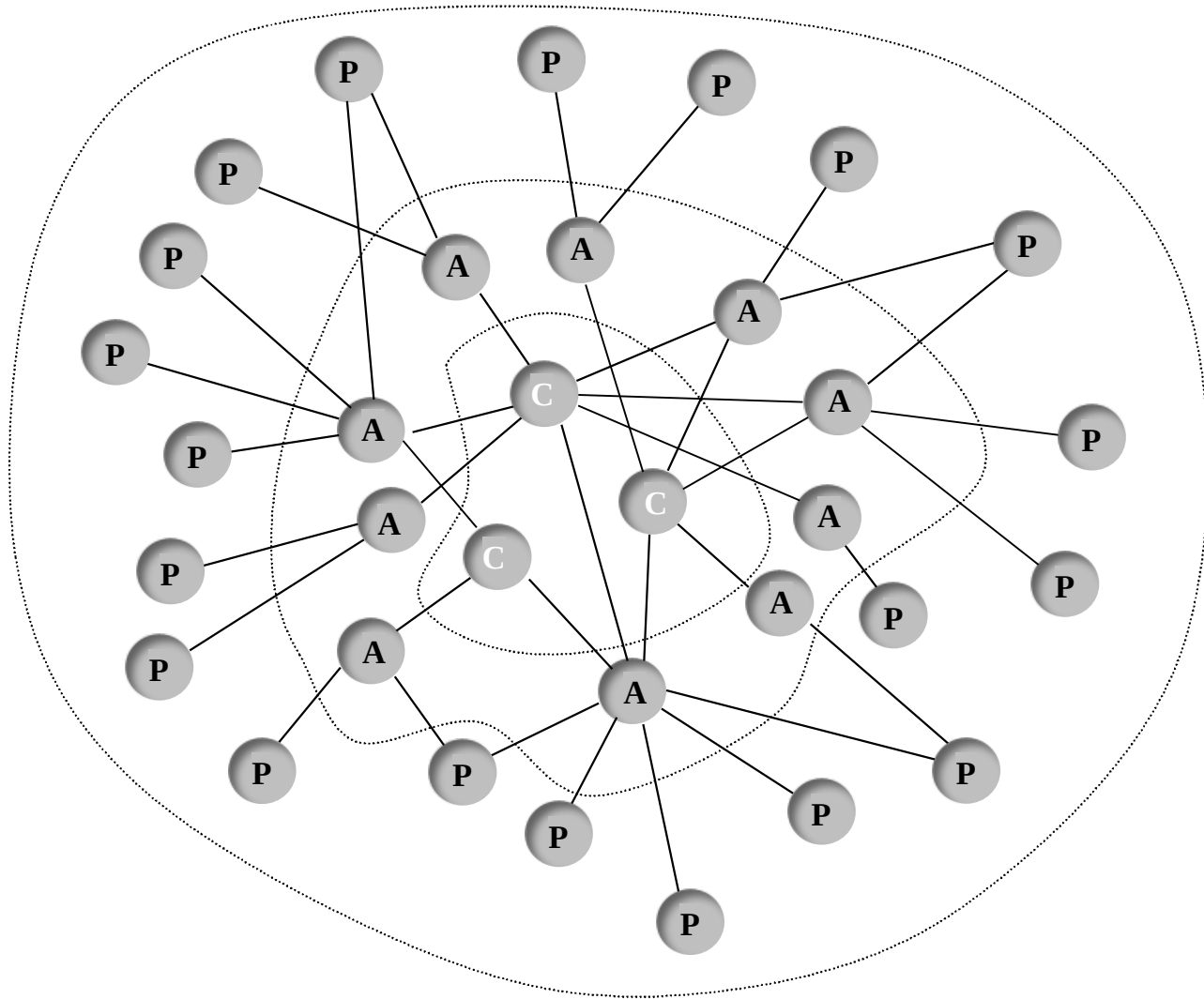
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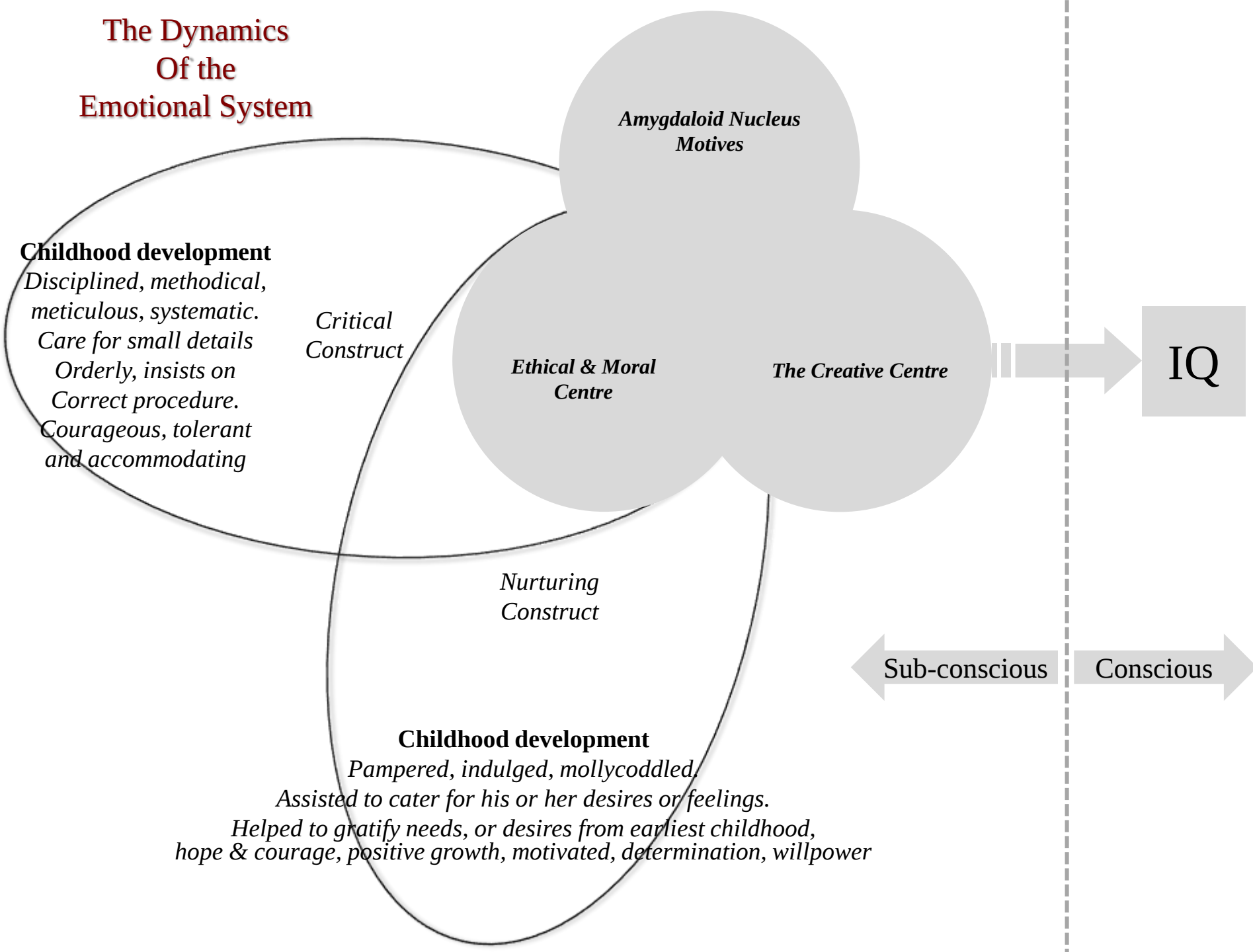
The Birth of a Belief



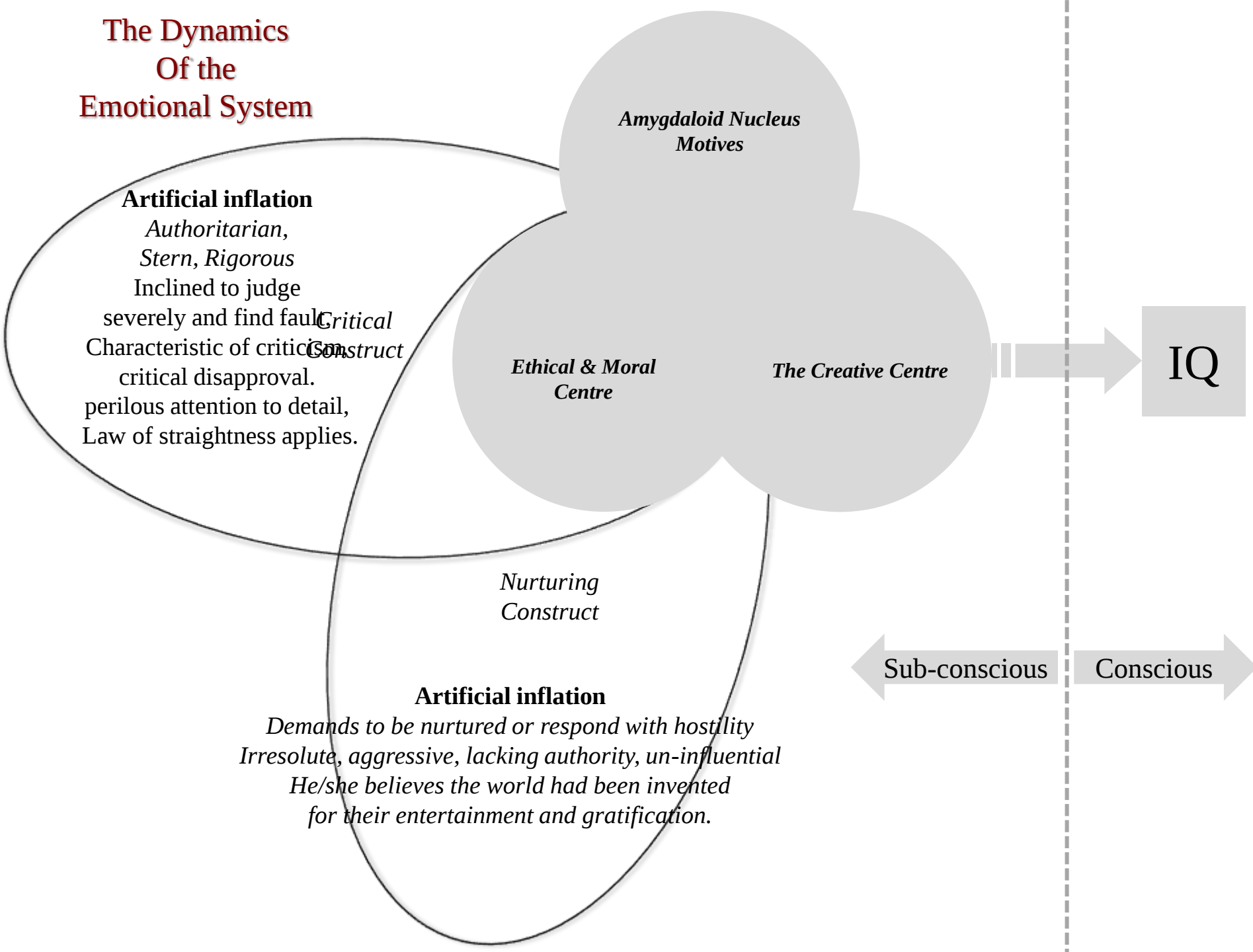
A Typical Belief Structure



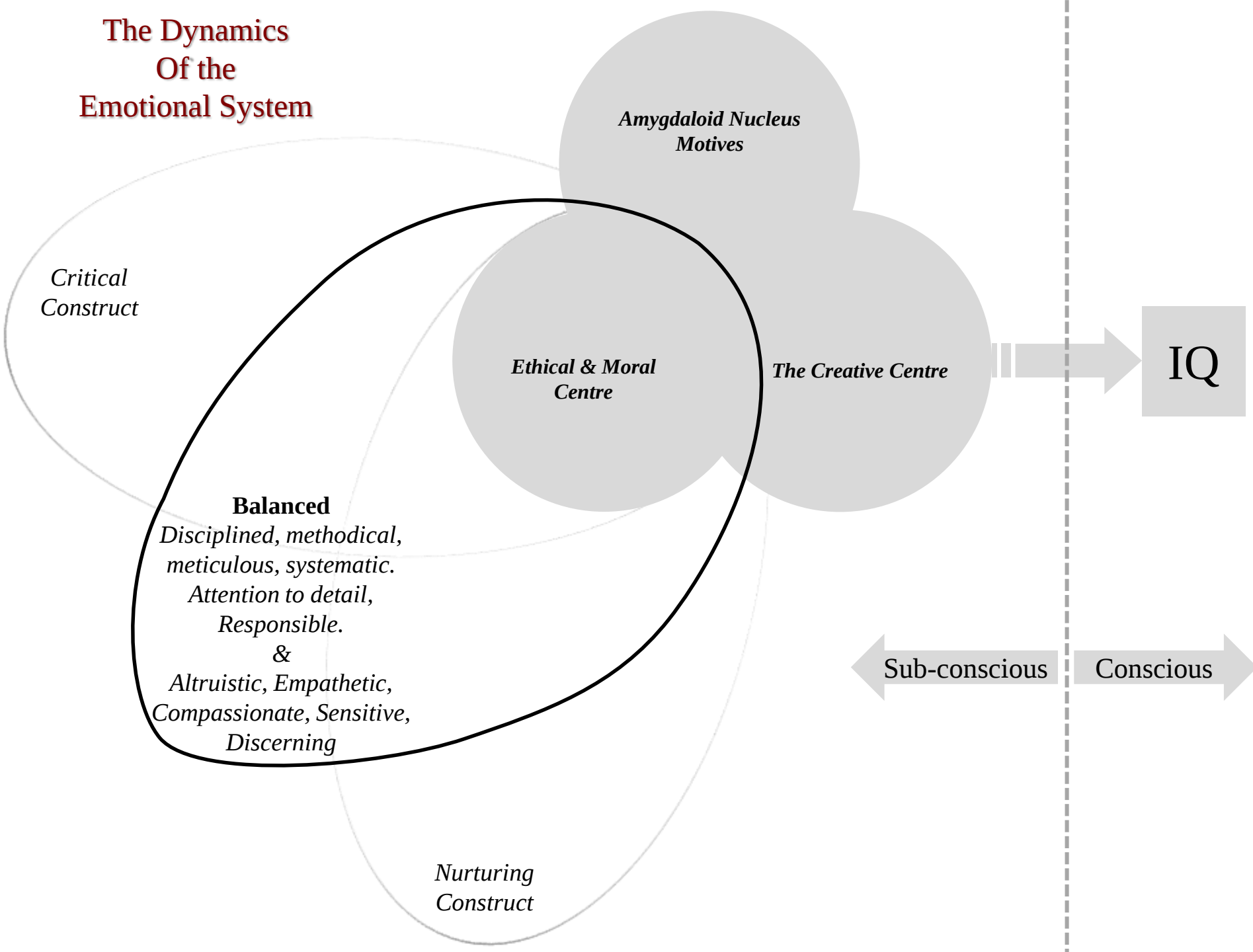
The Dynamics Of the Emotional System



The Dynamics Of the Emotional System

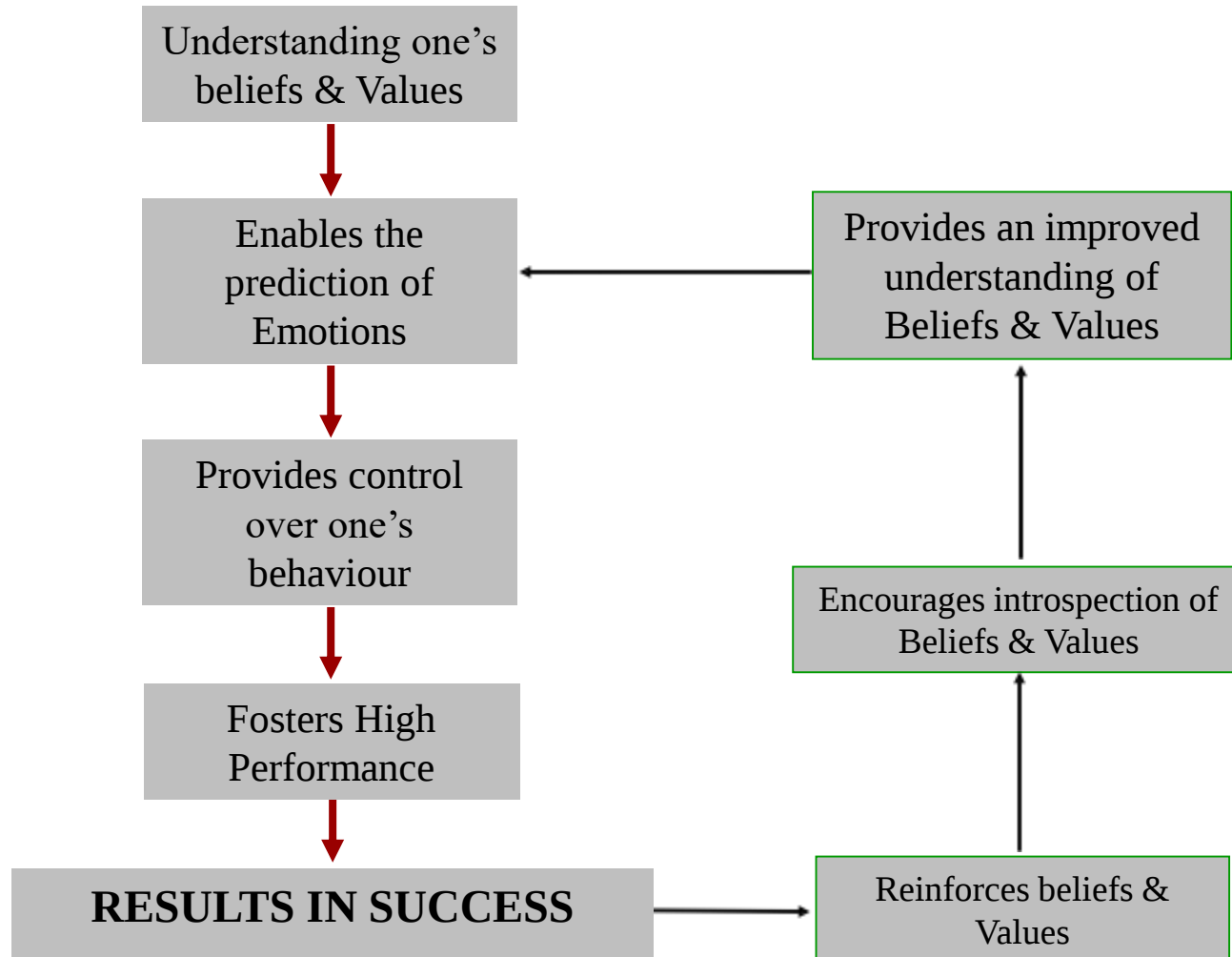


The Dynamics Of the Emotional System



CONTROLLING PERFORMANCE

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VOLITION

(Locus of Control)

*Is a theory of personality
that refers to the extent to which
Individuals believe that they can
control the events that affect them.*

DENIAL & the Emotional Link

Amygdala

The Emotional Link

Semantic

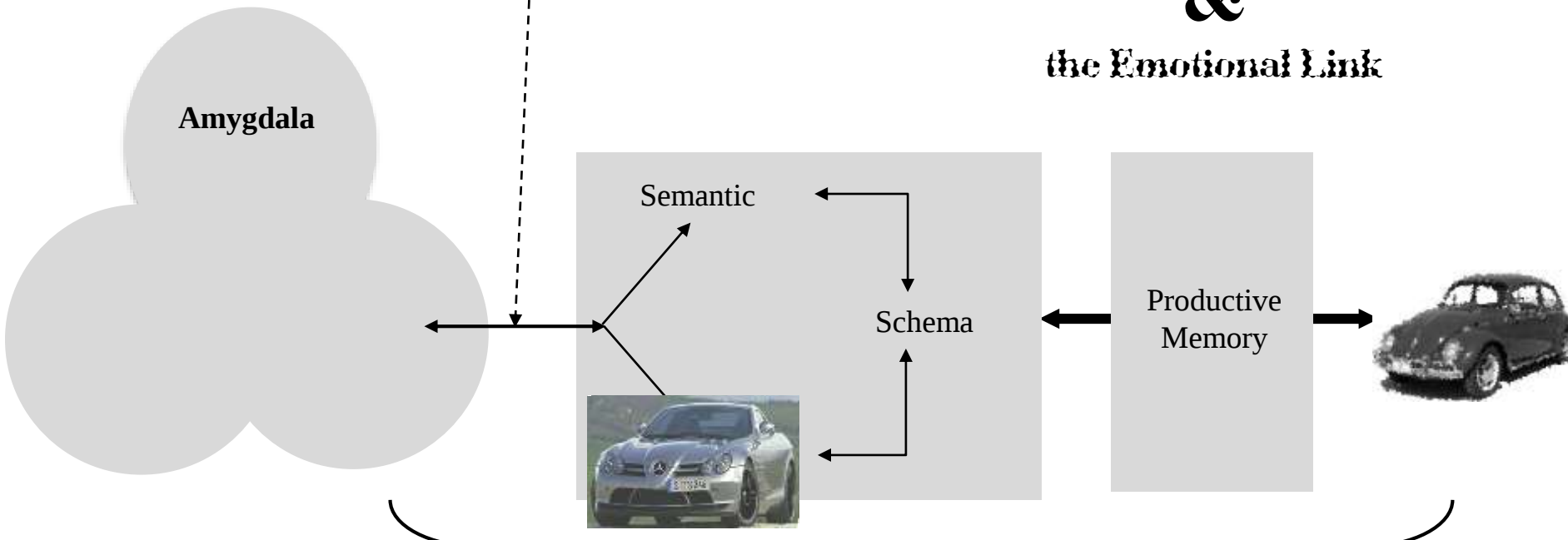
Schema

Productive
Memory



DENIAL

*The process of lying to
yourself about reality*



Communication

**55% Body Language
Attitude**

38% Paralanguage (Tone Attitude)

7% verbal (Actual voice communication)



Thank You

For your Commitment to Change

Dr Joel W.Hughes PhD

