



# A Materialist Theory of Consciousness That Explains the Origins of Religion

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# Introduction

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- **Dual Process Theory** in Psychology and Cognitive Science
  - Posits two processes in the human brain:
    - System 1: the fast, intuitive, implicit (automatic) subconscious process
    - System 2: the slower, deliberative, explicit (controlled), conscious process
  - Popularized by psychologists Daniel Kahnemann's 2011 book:  
***"Thinking, Fast & Slow"***
    - His book described the biases that System 1 can have in decision making.
    - His 2002 Nobel prize in Economics for Prospect Theory and Behavioral Economics is based on Dual Process Theory
  - Also popularized by Malcom Gladwell's 2002 book:  
***"Blink: The Power of Thinking without Thinking"***
    - He extols the merits of the System 1 decisions!

International  
Conference  
in 2006

# "In Two Minds: Dual-process Theories of Reasoning & Rationality"

→ 2009 Book: *"In Two Minds: Dual Processes and Beyond"*

In Chapter 2, one of the organizers, J. Evans, says:

- "There are a number of reasons, ..., why it may be a good idea to get away from the System 1 and 2 terminology.
  - It would be more useful to describe this grand unifying form of dual-process theory as the '**two minds hypothesis**'.
  - Here I define '**mind**' as a high-level cognitive system
    - **capable of representing the external world**
    - and **acting upon it** in order to
    - serve the **goals of the organism**.
- ...  
"



# "In Two Minds: Dual Processes and Beyond", 2009 Book

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→ Book '**two minds hypothesis**' *quote continued:*

- "...The two minds hypothesis is that the human brain contains **not one but two parallel systems** for doing this.
  - **Animals**, according to this view, have but one system corresponding to the '**old mind**' in human beings.
  - **Humans** have a '**new mind**', which coexists in uneasy coalition with the first, sometimes coming into direct conflict with it.
- This is a strong, even startling hypothesis, which makes it very interesting **(if probably wrong!)."**
  - ***Hopefully THIS presentation will make this hypothesis much more plausible to YOU.***



# Part 1: The LC and PC Theory:

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- Proposes that there are simultaneously two conscious entities (or minds) in the modern human brain:
  - The **Primary Consciousness (PC)**
    - => **Old Mind** we share with animals
  - The **Language Consciousness (LC)**
    - => **New Mind** that is unique to humans
  - This theory will explain the origin of religion and spirituality about 50K years ago.
    - The LC thinks it is Man and the LC identified the PC as God.
- We start by asking: **“What is consciousness?”**



# What is consciousness?

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- **Third person:** *Is someone else conscious?*
  - Yes, if they respond appropriately to a stimulus
    - In other words, if they “**do something**” appropriate for the stimulus.
- **First person:** *Am I conscious?*
  - Yes, if I can **experience** any sensory impression,
    - Or if I can think a thought (with the inner voice),
    - Or if I can feel an emotion.
  - Paraphrasing Descartes:  
*I think, I see or I feel, therefore I am conscious!*
  - But we also all think and say we have “free will” and that we “do things”
    - In other words, we all tend to think: **who I am IS my consciousness** and **whatever I do, is done by my consciousness.**
    - Therefore even first person consciousness “**does something**”!



# If Consciousness “Does Something”, then it is an **Agent**

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- Both first and third person **consciousness** seems to require something like an **agent** that “*does something*”.
- 
- Both of the minds (or agents) in the human brain seem to have a lot of **intelligence**. What does it mean to have an intelligent agent?
- My favorite definition of **intelligence** for an **agent** is:
  - **Intelligence measures an agent’s ability to achieve its goals in a wide range of environments.**
    - See the Legg & Hutter paper at <http://arxiv.org/pdf/0712.3329v1.pdf>
- This leads to the “Conscious Agent Hypothesis” that leads to the LC & PC Theory...



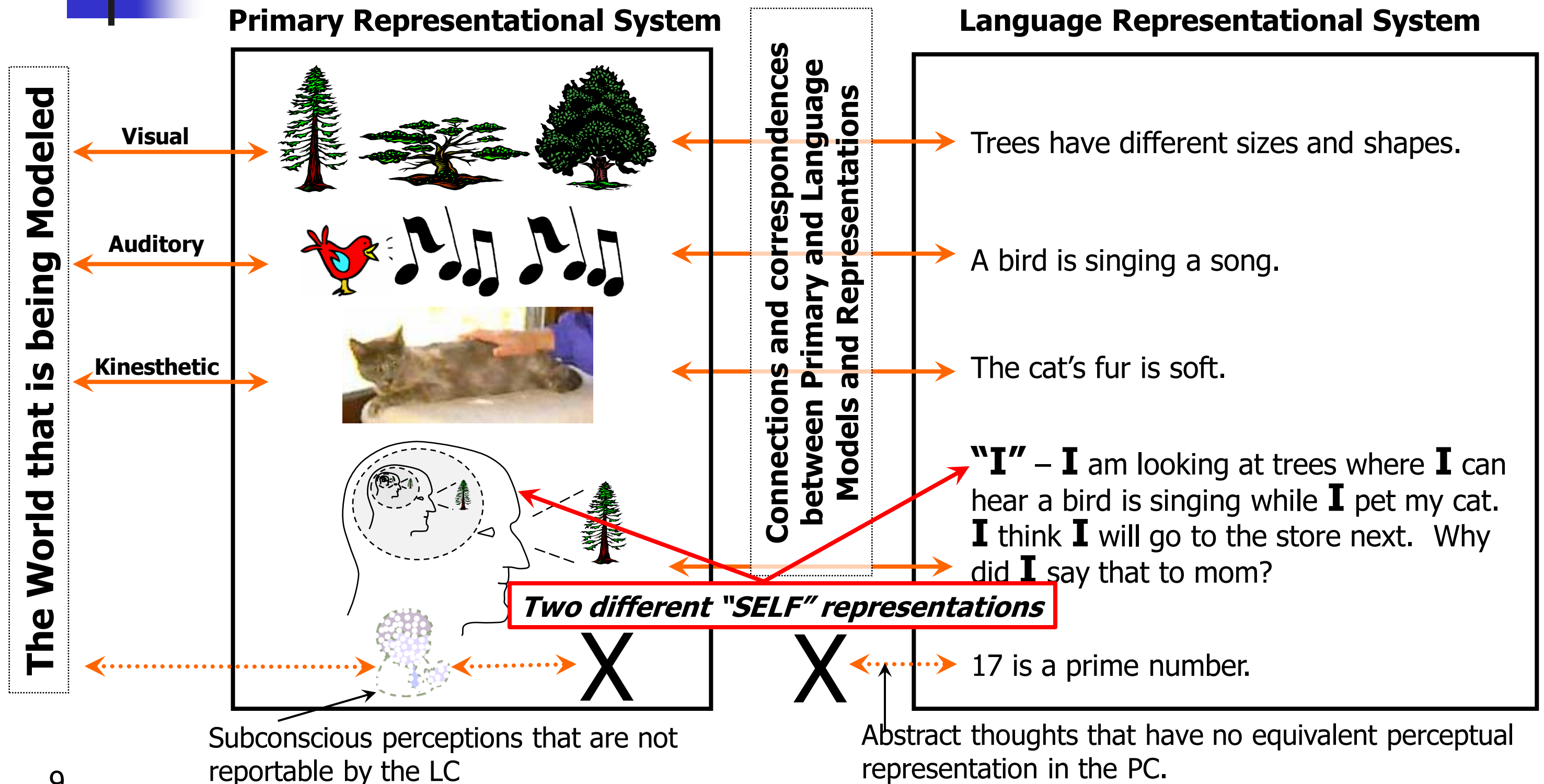
# The Conscious Agent Hypothesis:

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- **If** an *intelligent agent*:
    - Has **goals**,
    - Can **sense** the world,
      - And makes **representations** and **models of the world**,
    - Is able to perform **actions** that change the world,
      - And makes predictions about whether **goals will be achieved**,
      - *Note: The agent will need to have a **representation & model of the agent** itself so that it knows what actions it is capable of doing.*
    - And **IF** the **model** of both the **world** and the agent **itself** are **sufficiently rich, detailed and comprehensive**,
  - **Then** the agent will be **conscious!**
- => There will be a **range** of levels of consciousness.



# A Human Being has Two Different Representations of the World & Itself:



The World that is being Modeled

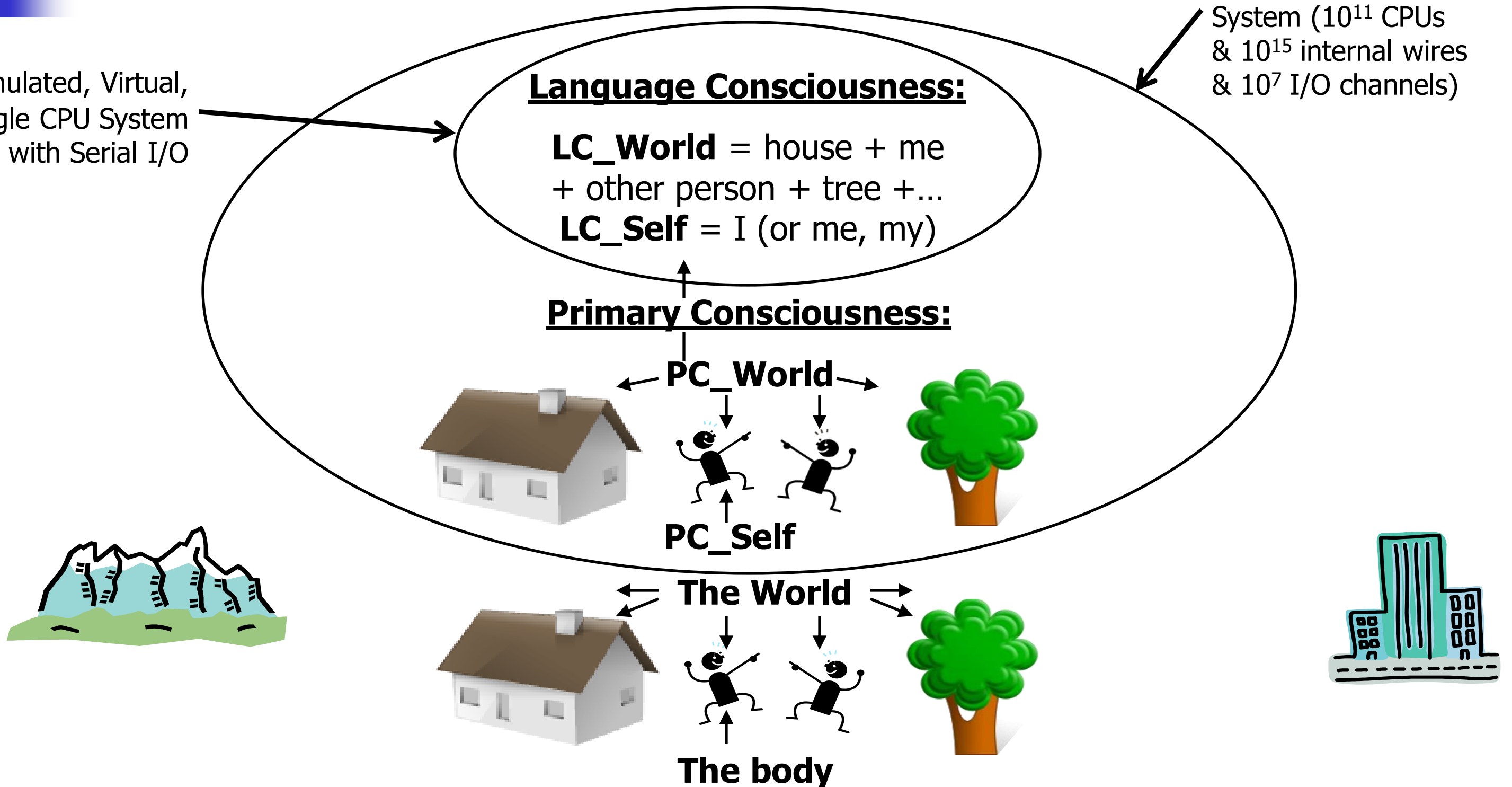
# Therefore, Two Consciousness Entities:

<b><u>Primary Consciousness</u></b>	<b><u>Language Consciousness</u></b>
Ancient (many millions of years)	New (about 50 thousand years old)
Primates and many other animals have this consciousness.	This consciousness seems to be (almost?) uniquely human.
Massively parallel processing (senses as inputs & internal representations)	Largely serial processing (the "voice" always talking in your head)
High Bandwidth	Low Bandwidth
Intuitive, spatial, concrete thought, music, art, athletics	Language, logic, temporal sequences, abstract thought, science
Emotions are <u>from</u> the primary system	Emotions are <u>felt</u> in the body
Automatic (Kahneman System 1)	Effortful (Kahneman System 2)
<b>Difficult to report the contents of consciousness without using the LC.</b> (But priming is one way to report without language.)	<b>Easily "reportable"; thus it is the most obvious consciousness and is often mistaken as the only consciousness.</b>
The entity that perceives the "blind sight" object.	The entity that is blind to the "blind sight" object.
The "Subconscious" (or Id or Unconscious)	The Ego (and Super Ego)
The "Self" (or "true self")	The "self" (or "narrative self")
<b>Does most of the work.</b>	<b>Takes most of the credit.</b>

# The Language Consciousness (LC) & The Primary Consciousness (PC)

**LC:** Emulated, Virtual, Single CPU System with Serial I/O

**PC:** Massively Parallel Multiprocessing System ( $10^{11}$  CPUs &  $10^{15}$  internal wires &  $10^7$  I/O channels)





# Primary and Language Goals

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- The **PC Goals** are built in by **evolution** and they are associated with, and indicated by: emotions, feelings, drives and motivations
  - Since humans are intensely social, many of these goals and emotions **promote sociality** which will support the spiritual virtues (shown later).
- There are **no goals** built into the **LC** by evolution
  - LC developed when language became a universal representational system.
  - Since the LC became conscious approximately 50K years ago, there was no time for goals to evolve.



# Primary and Language Goals

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- The **LC** only has **intrinsic goals** as a conscious entity:
  - **To Exist** - Any conscious entity wants to continue to exist
  - **To be in Control** - Any conscious entity wants to control its future to survive.
  - **To plan for the Future based on the Past** - the Language Agent is built on the executive function and episodic memory which has this function or goal.
  - **To be Right** – about it's future plans and about it's language model of the world.
- So these intrinsic goals tend to be **selfish** and **self centered** which supports the spiritual vices (see next page)
- **Finally**, both the PC and LC can each **learn goals** and **copy goals** from one another.



# A List of Common Spiritual Virtues and Vices:

## Spiritual Virtues

- Love
- Altruism (or Selflessness)
- Forgiveness
- Humility
- Compassion (or Empathy)
- Fairness (or Justice)
- Acceptance
- Patience

- **These mostly come from the PC since they are pro-social.**

## Spiritual Vices

- Hate (or Hatred)
- Selfishness
- Resentment (or Regret or Blame)
- Arrogance (or Pride or Self-centeredness)
- Indifference
- Unfairness (or Injustice)
- Rejection (or Judging)
- Impatience

- **These mostly come from the LC since they are selfish & self-centered.**



# LC Strengths:

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- It is good at planning things out sequentially in time
  - **The LC is the time traveler!**
    - The auditory system excels at timing & long sequences.
    - Expressed language is always a linear sequence of words.
    - The LC is always reviewing and replaying the past and trying various scenarios for the future to see if the goals are achieved.
      - In other words: **It is always rehashing and rehearsing!**
- The LC enabled agriculture and thus the development of very large communities
  - With the ability to do long range planning and to use language to parcel out the division of labor.



# LC Strengths:

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- The LC enabled and implemented Science and Technology!
  - This has many obvious survival advantages,
  - And some obvious disadvantages like nuclear weapons, pollution and global warming!
- The world model of the LC can be exported to other humans through language (and books).
  - So the language world model and hence the LC gets better and stronger from one generation to the next.
  - Science is our best available world model.
- We culturally inherit the LC from our parents and teachers!





# Does the LC help us be happy?

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- Since we are such a social species, the LCs selfish and self-centered intrinsic goals can cause a lot of **social turmoil**.
- The LC tends to create goals that are **judgments, complaints** or **criticisms** of the LC itself and other people.
  - The LC is also always talking about itself
    - e.g.: self-referential internal narrative (AKA: thoughts)
- The LC can form **attachments** to positive valence feelings and **aversions** to negative valence feelings:
  - This can lead to addictions
  - And can greatly amplify and prolong negative valence emotions
    - Short term anger can turn into a lifelong resentment.



# A PC Only Has to Live in the World...

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**Primary Consciousness**  
and the PC  
Model of the World

World

# In Humans, the LC Constantly Bombards the PC

These decisions and judgments can be made **now** or could have been made in the **past** and are recalled and reaffirmed now...

"This is not good."  
"I give up."

"I hate that guy."

"I'm going to die!!"

**Primary Consciousness**  
and the PC  
Model of the World

**Language Consciousness**  
and the LC  
Model of the World

"I'll never be able to do this."

"I need MORE!"

"I'll do it tomorrow."

"I am worthless."

"I cannot live without her!"

World

This can result in dysfunction of the PC model of the world since the messages from the LC will cause distorted goals and models of the world to be constructed – can lead to addiction and other mental diseases.



# Evidence for a PC & LC:

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## **Explains Many Psychological Experiments and Observations**

- Dual Process Theory evidence
- Split brain experiments
- Theory of Mind (Sally – Ann tests)
- Blind Sight Phenomenon
- Non-conscious Perception and Priming
- Libet's decision delay experiments

***We don't have enough time in this talk to examine all***

***this evidence in detail... (SEE EXTRA SLIDES AFTER "THE END" SLIDE)***

## **Consistent With and Helps to Explain other Theories and Models about Consciousness**

- Daniel Dennett's meme complex
- Thinking Fast and Slow by Daniel Kahneman
- Ned Block's Phenomenal Consciousness vs. Access Consciousness
- Bernard Baars's Global Workspace Model
- Antonio Damasio's "Core" and "Extended" consciousnesses.
- Julian Jaynes' Bicameral Mind Consciousness
- The User Illusion by Tor Norretranders



# Modern Human Evolution...

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- Last common ancestor with other primates was 6.5 M BP
  - Tool use and sophistication slowly increased till 50K BP
  - Brain size slowly doubled
    - Proportionally larger increase in temporal lobes and frontal lobes
  - Developed upright walking and opposable thumbs
  - Controlled fire & cooked food
  - Humans were anatomically modern by 200 K years BP
  - Hypothetically: perhaps vocabulary size and sophistication slowly increased over this time 6+ M year period...
- At 50 thousand year ago there was an **Abrupt Transition!**



# Abrupt Transition 50K Years BP

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- The “**Abrupt Transition**” of 50 thousand years ago included:
  - Humans started burying their dead,
  - **Many** radically different kinds of tools were developed
  - Started using animal hides to make clothing,
  - Hunted with more sophisticated techniques
    - Like using trapping pits or driving animals off cliffs
  - Engaging in cave painting.
  - Completed expansion into Asia & Europe
    - Modern human expansion out of Africa started around 75 K BP
  - Neanderthals went extinct within 20 K years
- Hypothesis: **Language Consciousness** started at 50K BP when language crossed the threshold to become a **universal representational system**
  - **It is the advantages of the LC that CAUSED the “Abrupt Transition”**



# Theistic Religion Origin?

- Hypothesis: Theistic Religions **also** started at 50 K year BP
  - Obviously there is no **direct** evidence for this, but it seems reasonable...
  - After all burial of the dead started at that time!
- Even if the LC and Theistic Religion both started at the same time, that is only correlation, not **causation**
- But it seems reasonable that the development of the LC was **the cause** for many or all of the other elements of the Abrupt Transition
  - So, it is seems reasonable to try on the hypothesis that the origin of the LC **caused** the origin of Theistic Religions

# The Evidence for the LC as the Cause of Theistic Religion

- The first part of the evidence will be a plausible hypothesis for a mechanism connecting the LC to Theistic Religion.
- Additional **evidence** for the LC/PC Theistic origin theory **will include**:
  - Many parts of religious texts can be understood by making the substitutions:  
**Man=>LC**                      and                      **God=>PC**
  - This theory can explain the possible efficacy of some of the recommended spiritual practices.
  - Many of the commonly assumed attributes of "God" can be understood in terms of this theory.



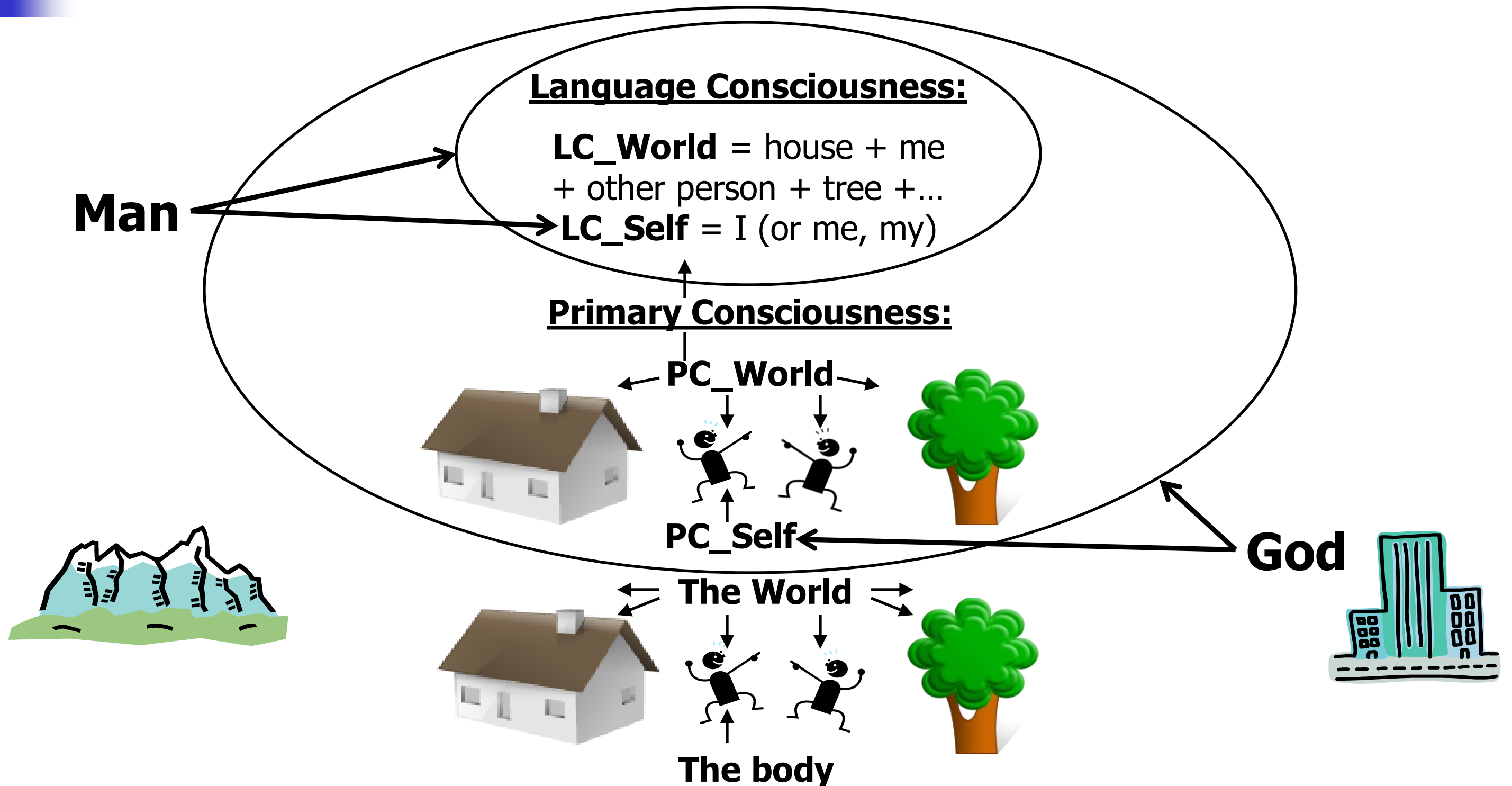


# The Split into Two Consciousnesses Gave Rise to the **Theistic** Spiritual Traditions:

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- At the time of the Abrupt Transition the LC would be weaker than the LC of today.
- Initially the **weak LC** experienced a **stronger PC** with more power in the world; the PC even had power over the LC.
  - Thus the PC and PC\_Self became identified as God
  - And the LC and LC\_Self became Man
    - The PC (God) created and continues to create the world (the PC world model) in which the LC (Man) lives.
    - The PC God created the LC Man (in "His" image as a conscious being) and gave LC Man (an illusion of) a Free Will.

# The LC & LC\_Self as **Man** (who lives in the PC\_World) and the PC & PC\_Self as **God**





# The Purpose of Spirituality

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- I will show how the introduction of the LC gave rise to both the **theistic** and **non-theistic** spiritual traditions.
- The “**real**” goal of spirituality is to undo some of the difficulties that we have living a happy life due to the problems the LC creates. In particular spirituality should:
  - Diminish the selfish and self-centered goals of the LC
  - Reduce the judgments, complaints and criticisms the LC makes.
  - Reduce the attachments and aversions of the LC.
- Ideally spirituality could **unify** the LC and PC into **one** being!
  - And keep all the useful long term planning, science and technology functions of the LC.

# Reinterpretation of Selected Passages of Genesis

- In the beginning when God created the heavens and the earth - *Gen 1:1*
  - LC lives in PC\_World created by the PC
- So God created humankind in his image - *Gen 1:27*
  - The LC runs on the hardware of the PC and has consciousness like the PC.
- ... God said to them, "Be fruitful and multiply, and fill the earth" ...
  - The PC goal to be fruitful and multiply was copied into the LC.
- God brought all animals & birds to man so he could name them - *Gen 3:19*
  - The PC created the images of every animal and the LC named everything.
- In Eden, God said: "You shall not eat of the fruit of the tree" (of the knowledge of good and evil); when they did eat it they were expelled from Eden and were cursed with all kinds of suffering - *Gen 3:3*
  - Describes **when** the LC became conscious and starts judging good & evil

# Reinterpretation of Selected Passages of the Bible

- [Jesus said] "...whatever you ask for in prayer, believe that you have received it, and it will be yours." - *Mark 11:24*
  - When the LC asks the PC for something, it can become a PC goal. The PC & LC together can be much more effective in achieving its goals than the LC alone.
- "[God's] will be done, on earth as it is in heaven." - *Matthew 6:10*
  - Earth = LC\_World, Heaven = PC\_World.
  - The LC's will (on earth) is surrendered to the PC's will (in heaven).
- [Jesus said] "The Father and I are one." - *John 10:30*
  - The LC and the PC were (really) one conscious being in Jesus.



# Prayer & Meditation

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- Prayer would be an example of the LC trying to explicitly communicate with the PC.
  - If the prayer is a request of some kind the PC may be convinced to use its greater powers to achieve the result.
  - If the prayer is to know God's will for us then it is the LC declaring its willingness to follow (through intuition) the direction of the PC.
- The various meditation techniques are all attempts to quiet the LC and experience the PC (God) directly.
  - Mantras - Repeating the same phrase over and over keeps the LC busy.
  - Concentrating on breathing - Breathing is one area where the LC and PC share motor control.
  - Open monitoring of PC qualia without a LC commentary allows experiencing life from the PC point of view.



# Generic Western God:

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- God is all powerful
  - The PC (God) filters and controls EVERYTHING the LC (man) perceives.
- God is all knowing
  - The PC (God) knows everything that the LC (man) knows
    - And much more since the PC has a bigger DB and even knows the unconscious things in the body and brain.
- God can perform miracles
  - All perception comes through the PC (God) which could theoretically change what the LC perceives - to “violate” the laws of physics.
- God is only good, but man can be either good or evil
  - This is understandable exaggeration in the sense that the PC’s social goals support the spiritual virtues, whereas the LC is more self-centered and more inclined to the spiritual vices.



# The Split into Two Conscious Beings Gave Rise to **non-Theistic** Spiritual Traditions:

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- These non-Theistic Spiritual paths try to undo the suffering caused by the LC
  - These spiritual paths also arose when the LC was new:
    - The dramatic increase in suffering caused by the LC was more apparent then.
    - Suffering comes from the obsessive attachments of the LC to objects it thinks it needs and to its stories, judgments, complaints and criticisms.
- Many of these paths have the concept of “Enlightenment” where this increased LC suffering is can be completely undone.
  - Enlightenment could be explained as the human recognizing that they really are not the LC but instead they are the PC.
  - One example of this is the “Nondual” state of some Eastern Spiritual Paths
    - Better explanations of Enlightenment comes from the Three Agent version of this theory presented in Part 2.





# Buddhism Teaching & Trainings

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- Buddhism teaches that attachments and aversions are the cause of suffering
  - Attachments and aversions are greatly amplified by the LC.
- Buddhist training in **morality** is said to be both the first and last training
  - The second training is **concentration** and the third training is **wisdom**.
  - Thus the training in morality is needed both before and after enlightenment
  - Training in morality is essentially training in the spiritual virtues.
  - Training in morality diminishes selfish & self-centered LC goals.

# Relationship of Buddhism to the LC & PC Theory:

- The second and third trainings of concentration and insight can result in the realization of “not-self”:
  - **Not-self** says that “upon careful examination, one finds that no phenomenon is really ‘I’ or ‘mine’; these concepts are in fact constructed by the mind.”
  - This means that the LC\_Self concept of “**I**”, “**me**” or “**mine**” is not real and is just constructed in the **LC mind**.
    - “Not real” means it is not found in the “real” world.
- Buddhism also has the concept of **Buddha Nature**:
  - Buddha realized that all beings have the same nature & potential for enlightenment, and this is known as **Buddha Nature**.
  - Therefore Buddha Nature corresponds to the **PC** or **PC\_Self**.



# Zen Buddhism Nirvana

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- Zen masters achieve nirvana after years of sitting meditation.
  - Nirvana is universally described as something that cannot be described – it is beyond words.
    - This is exactly true for any experience of the PC since any use of words automatically makes it a LC experience or concept.
- Another Zen technique is to concentrate on a koan:
  - A koan is a statement or question given by the teacher that does not make logical “sense” (to the LC).
  - For example: “What is the sound of one hand clapping?”
    - This has no logical answer, so trying to answer this unanswerable question may result in experiencing consciousness from the PC point of view instead of the LC.

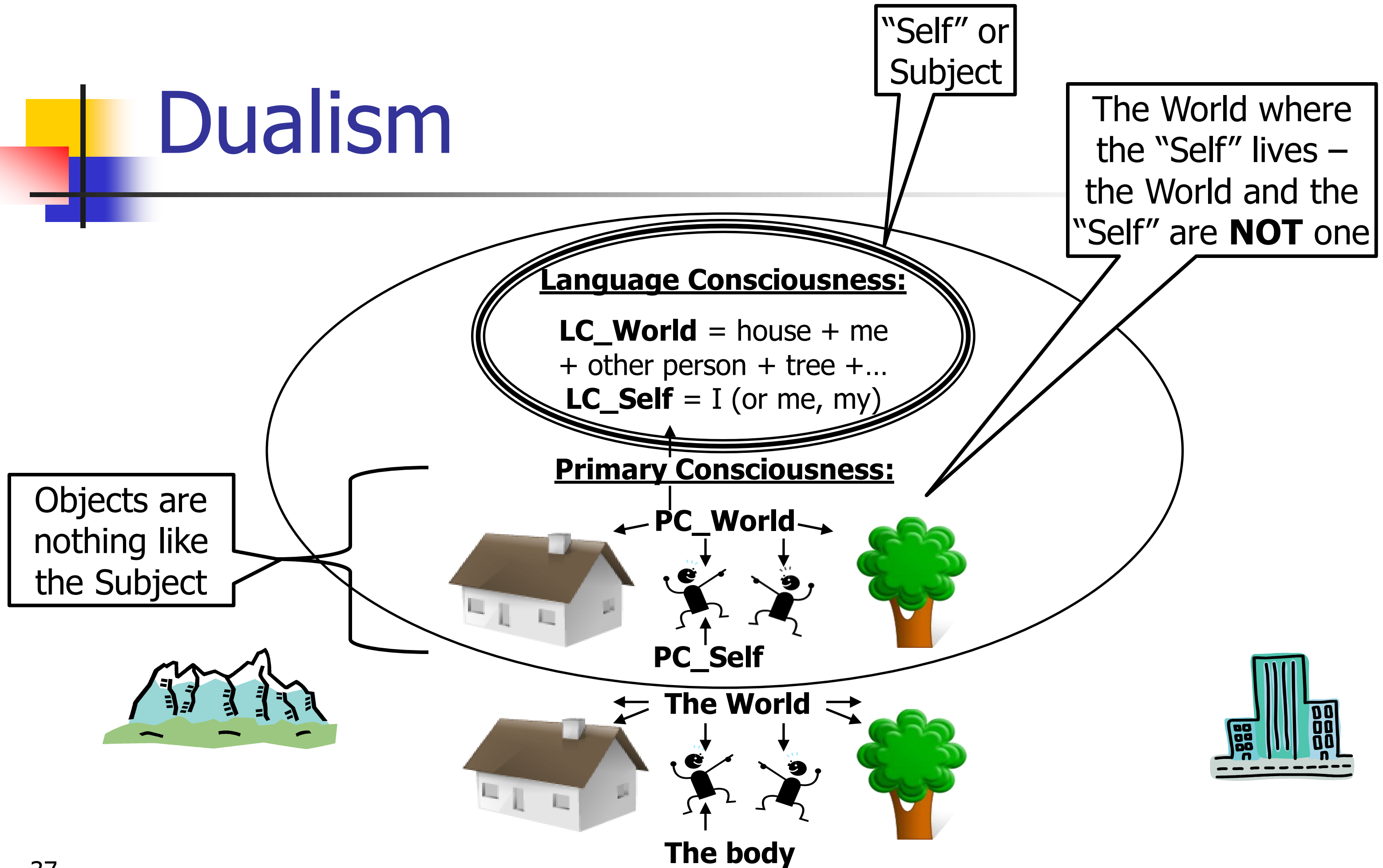


# Dualism vs. Nondualism

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- The Advaita Vedanta school of Hinduism teaches nonduality:
  - Nonduality points to "a primordial, natural awareness **without subject or object**"
  - This can also be expressed as: "The world and I are ONE."
- A normal "dual" human thinks he is the LC\_Self: "I" or "me".
  - The world the PC\_Self lives in is the PC\_World.
  - => subject is not the object and the world and I are NOT one.
- But the "nondual" being is the PC\_Self in the PC\_World
  - Subject and object have the same nature: PC representations
  - World and I are of the same nature: PC representations
  - In fact the PC consciousness contains the whole world

# Dualism



# Nondualism

The "LC" is seen as a tool but the "Self" does **not** identify itself with this tool.

Objects are all part of the Subject

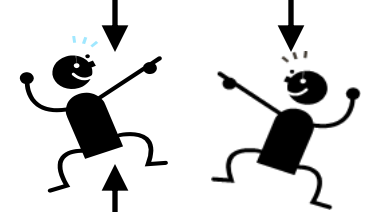
"Self" or Subject

The World where the "Self" lives – the World and the "Self" are **ONE**

**Language System:**  
**LC\_World** = house + me + other person + tree +...  
**LC\_Self** = I (or me, my)

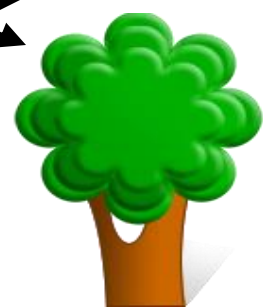
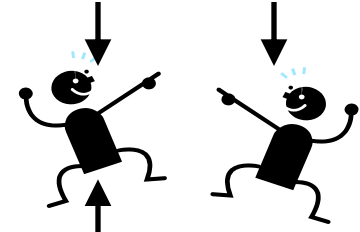
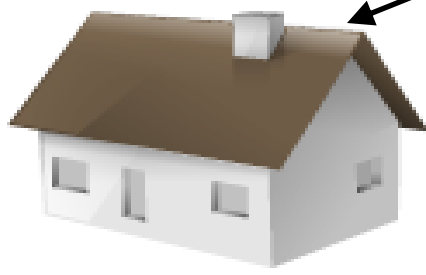
**Primary Consciousness:**

**PC\_World**

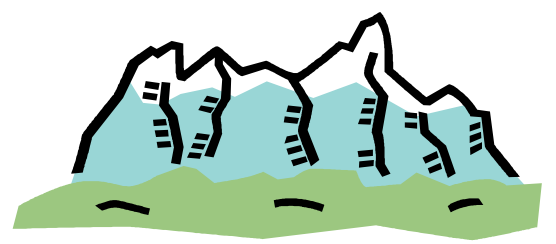
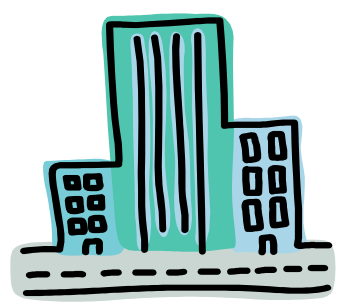


**PC\_Self**

**The World**



**The body**



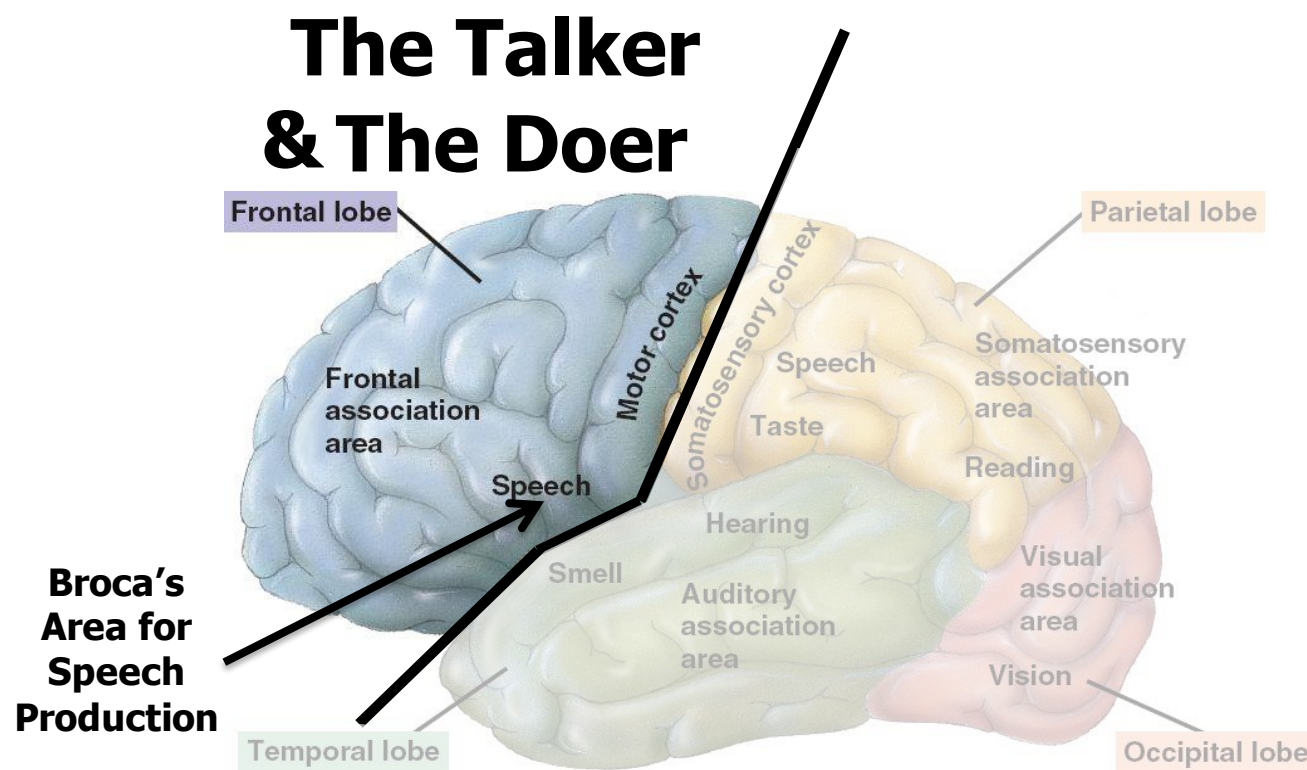


# Part 2: Three Agent Theory

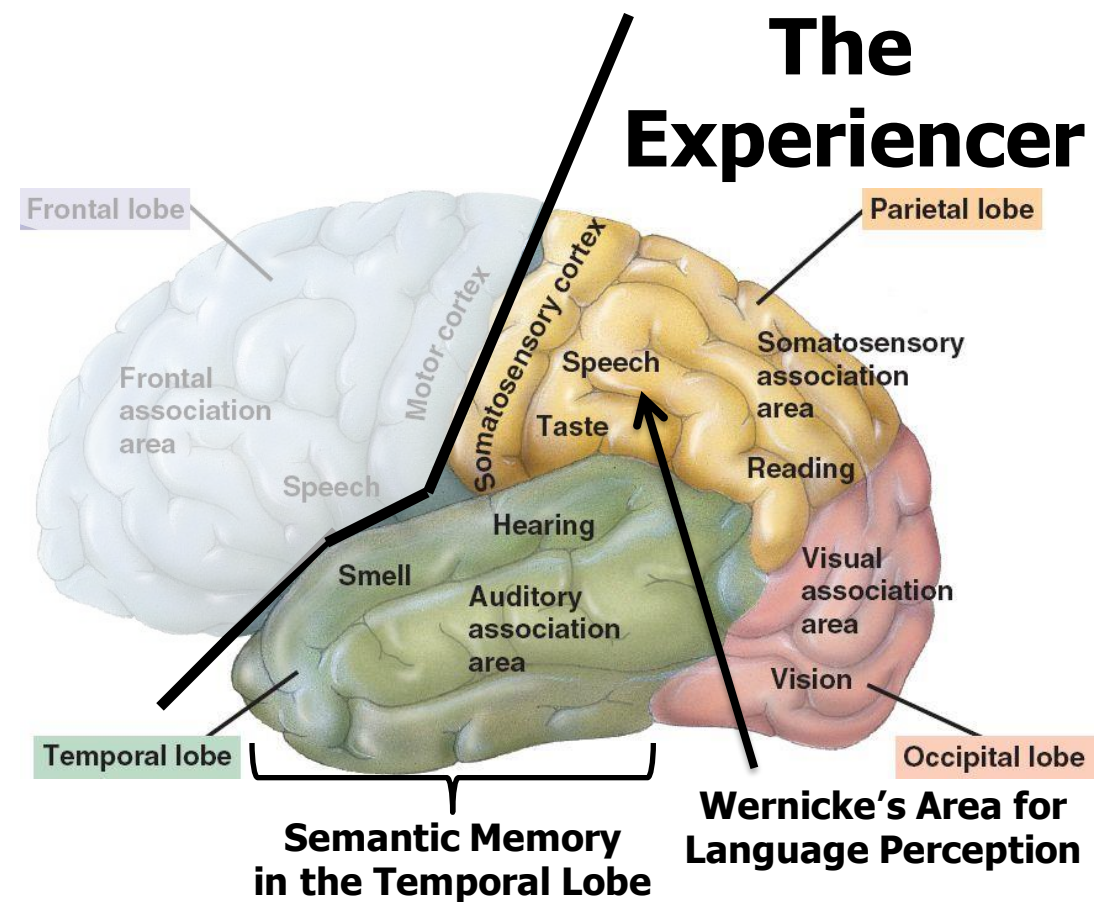
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- The division into three agents is suggested by the gross neuroanatomy of the brain.
- It is also motivated by the evidence for there being two distinct kinds of enlightenment.
  - The three agent theory can explain these two kinds of enlightenment.
  - The three agent theory is a superset of the LC and PC theory.
    - The three agents can explain everything the LC and PC theory can explain and it can explain more...

# Brain Gross Neuroanatomy



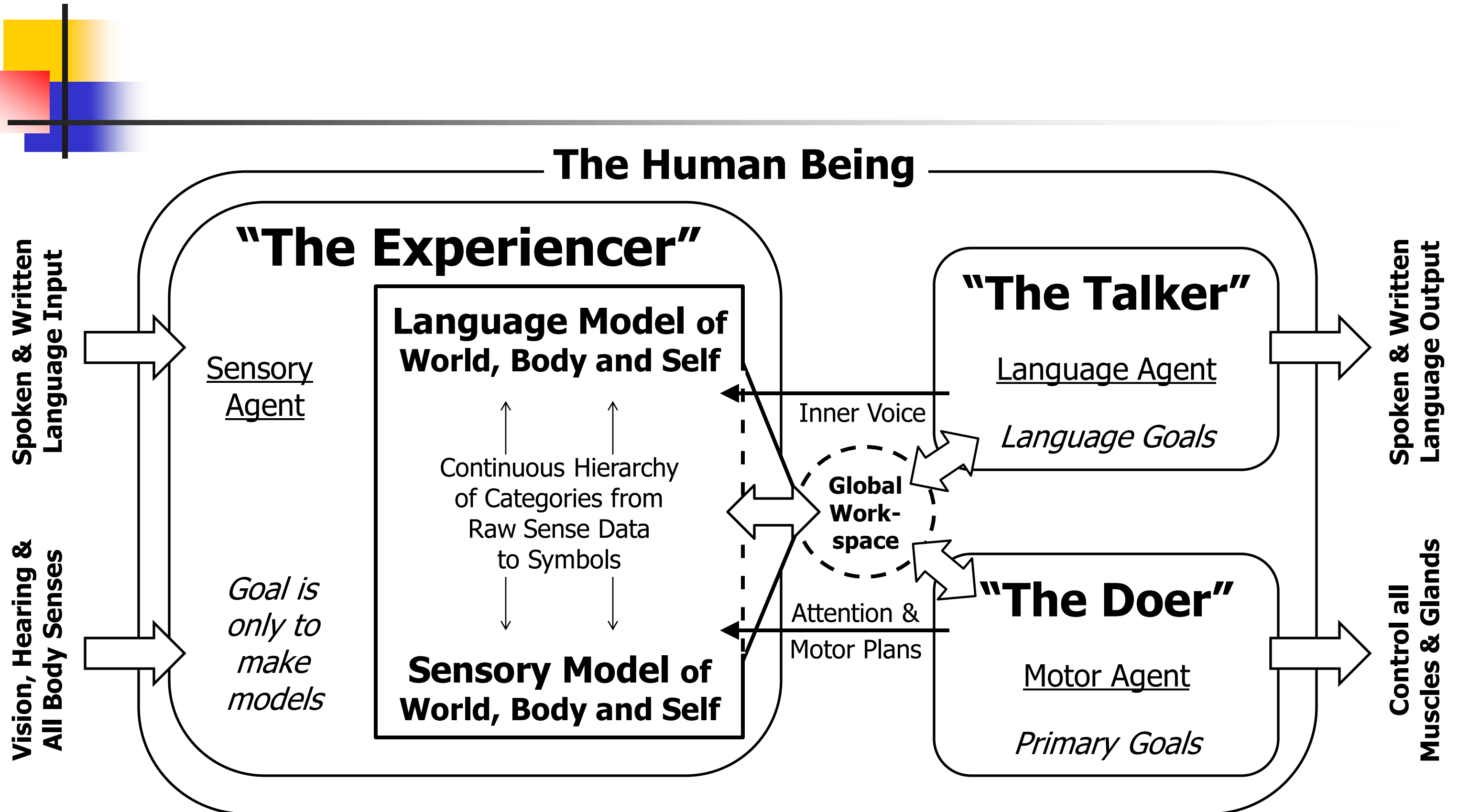
The Talker & The Doer  
**share 40%** of brain



The Experienter  
is **60%** of the brain



# Interfaces Between the Agents:





# Agent Self Models

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- The Experiencer, The Doer and The Talker agents each need a **“self model”** for the **agent itself**.
  - This self model allows the agent to know what it can do.
- **“You”** also need a **“self model”**:
  - If “You” are the Talker, your model will be the Talker self model.
  - If “You” are the Doer, your model will be the Doer self model.
  - If “You” are the Experiencer, your model will be the Experiencer self model.
- Parts of these self models will be in the Experiencer if they can be experienced (or if they are represented in language).
  - The rest of the models will be in the agent.



# Agent Self Models

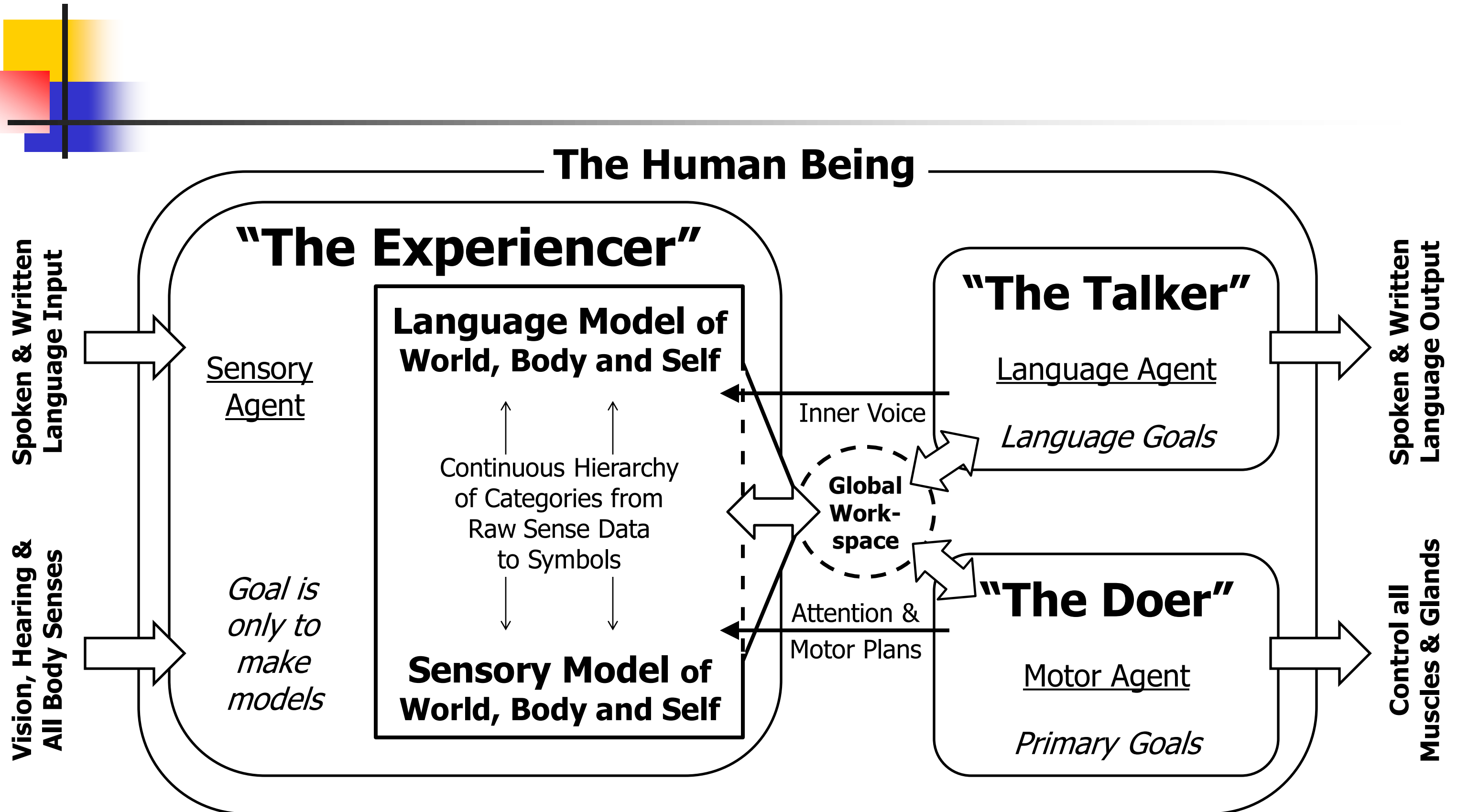
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- The Experiencer's experienced self model is just "**Presence**"
  - **Presence** is a sense of **being** – it is "**that**" which **experiences** all of the experiences of the Experiencer.
- The Doer self model will include the Experiencer self model.
  - The Experiencer also directly experiences the senses of **doing** and **feelings** that are part of the Doer self model.
  - The goals of the Doer are contained in the Doer and are also part of the Doer self model.
- The Talker self model will include the Experiencer self model plus the Doer self model.
  - Plus **A LOT MORE!**

# What Else is in the Talker Agent Self Model?

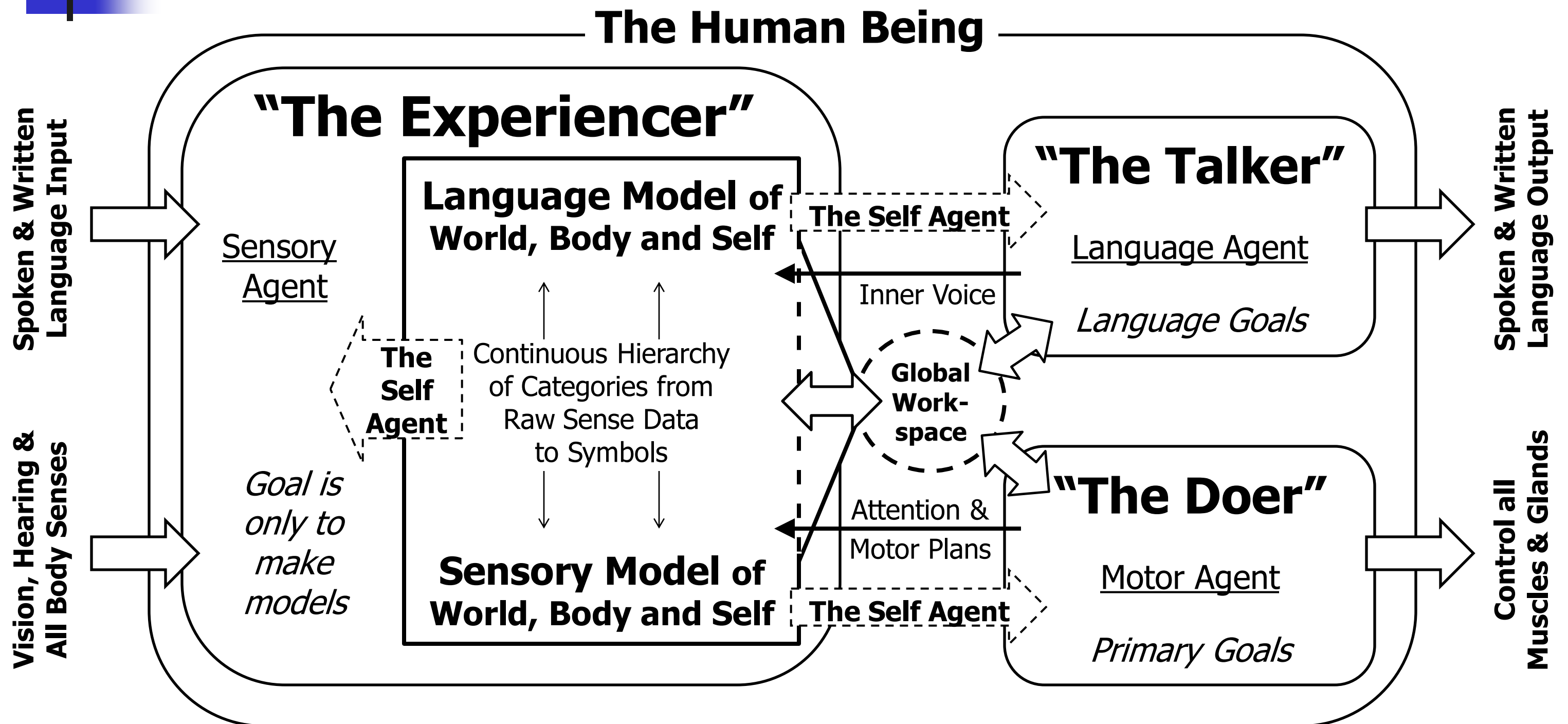
- In addition to the Experiencer and Doer self models the Talker self mode includes a **language** description (in the Experiencer) of:
  - The complete **life story** of the Talker
  - The short term and long term **plans** for the future.
  - The **complete** list of judgments, complaints, criticisms, resentments, regrets and obsessive attachments to people, places and things.
  - The Doer and Experiencer's self models expressed in language.
- The Experiencer also experiences the inner voice which will be part of the Talker self model – the Talker says “That inner voice is **ME!**”
- The language symbols that represent this Talker self model includes your **name** plus the personal pronouns - **I, me** and **mine**.
  - These symbols are undoubtedly the **most complicated symbols** in the entire Experiencer's language system!

# Interfaces Between the Agents:

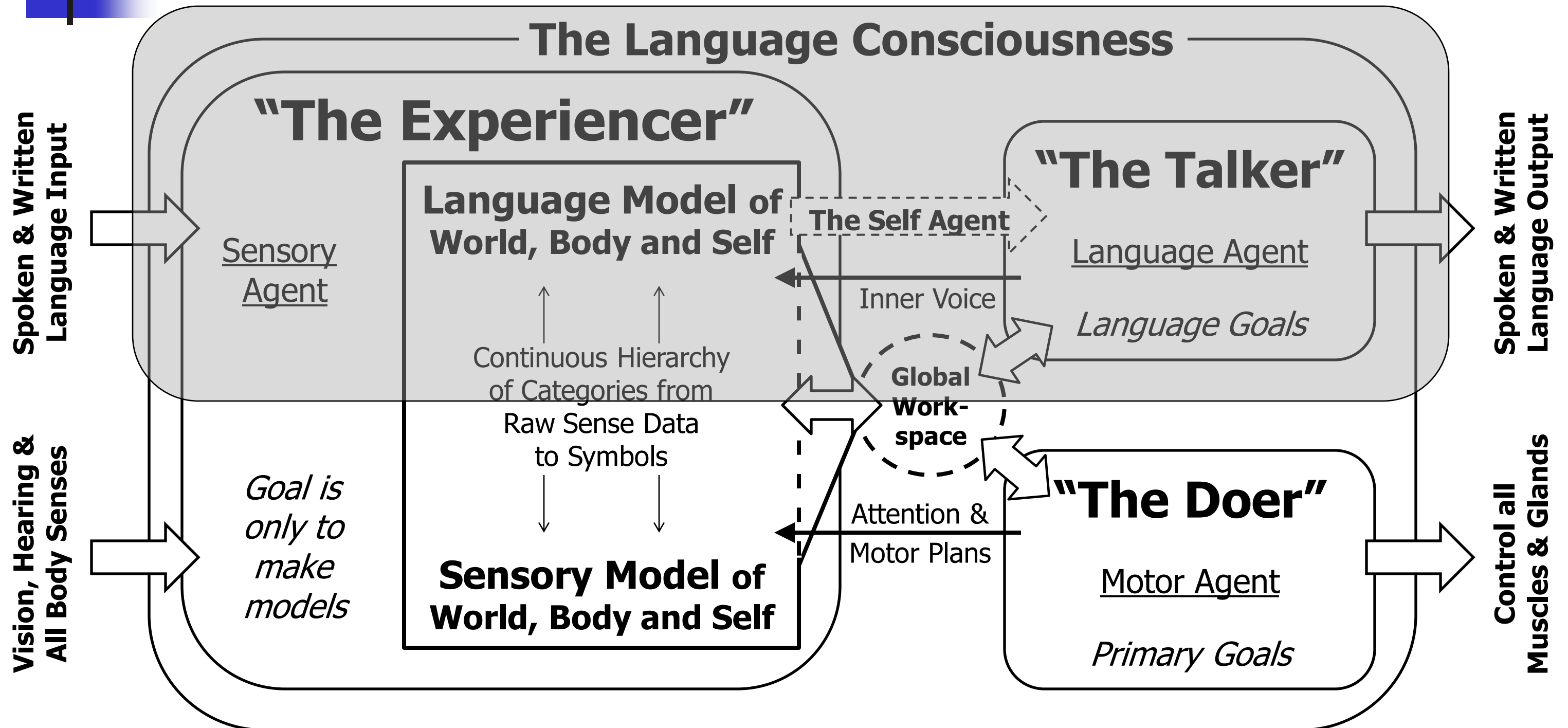


# Interfaces Between the Agents:

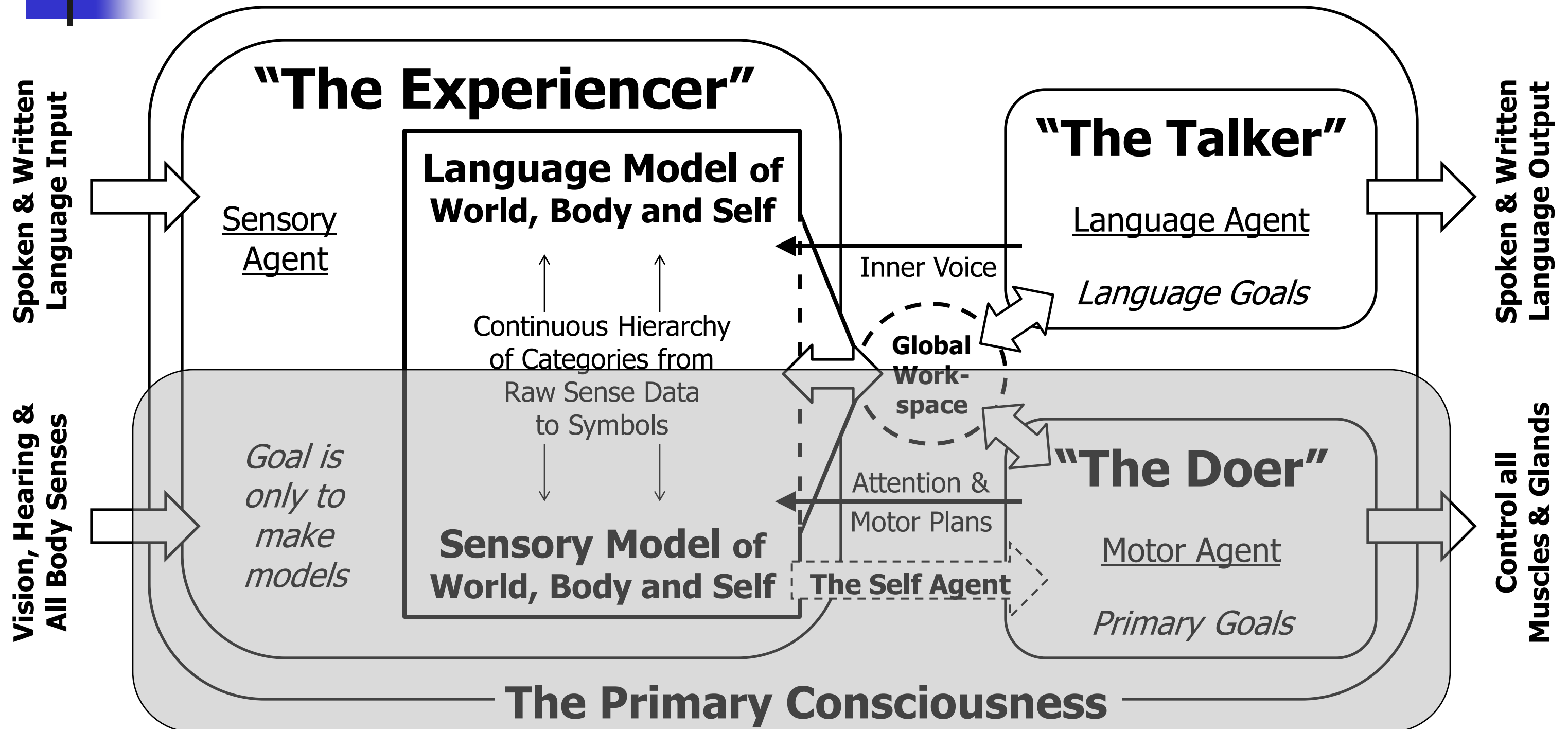
Only **ONE** of these agents will be "you": **The Self Agent**



# The Normal Modern Human is the LC



# The Enlightened Human, or the "God" of the LC/PC Theory is the PC







# Kinds of Enlightenment

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- Dr Jeffery Martin<sup>(1)</sup> has interviewed hundreds of people claiming enlightenment (which he calls Persistent Non-Symbolic Experience (**PNSE**)).
  - He has found a continuum of common attributes among these people and he has named 4 Locations on that continuum(1).
    - PNSE Locations 1, 2 and 3 are all similar – seeming to differ in degree rather than kind of enlightenment – for example, having increasing positive valence emotions as you go from 1 to 3
    - PNSE Location 4 seems to be quite different in kind – having no sense of self and having no emotions at all.

(1) <http://nonsymbolic.org/PNSE-Summary-2013.pdf>



# Kinds of Enlightenment

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- There are also some examples of people who have reported how they transitioned between two different kinds of enlightenment.
  - Ex-nun Bernadette Roberts and Richard of the Actual Freedom website are two examples.
- The Three Agent Theory will model and explain these two different kinds of enlightenment.
  - This theory also explains the techniques used for enlightenment.



# Five Spiritual Stages Model

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- Stage 1: **Normal Modern Human**
- Stage 2: **Virtue Seeker**
  - Seeks to cultivate spiritual virtues and avoid spiritual vices
- Stage 3: **Spiritual Surrender**
  - Seeks to surrender their will and life to God / Higher Power.
- Stage 4: **Unitive State** (PNSE Locations 1, 2 & 3)
  - They have achieved union with God / Higher Power.
- Stage 5: **No Self State** (PNSE Location 4)
  - They sense that their "Self" has disappeared

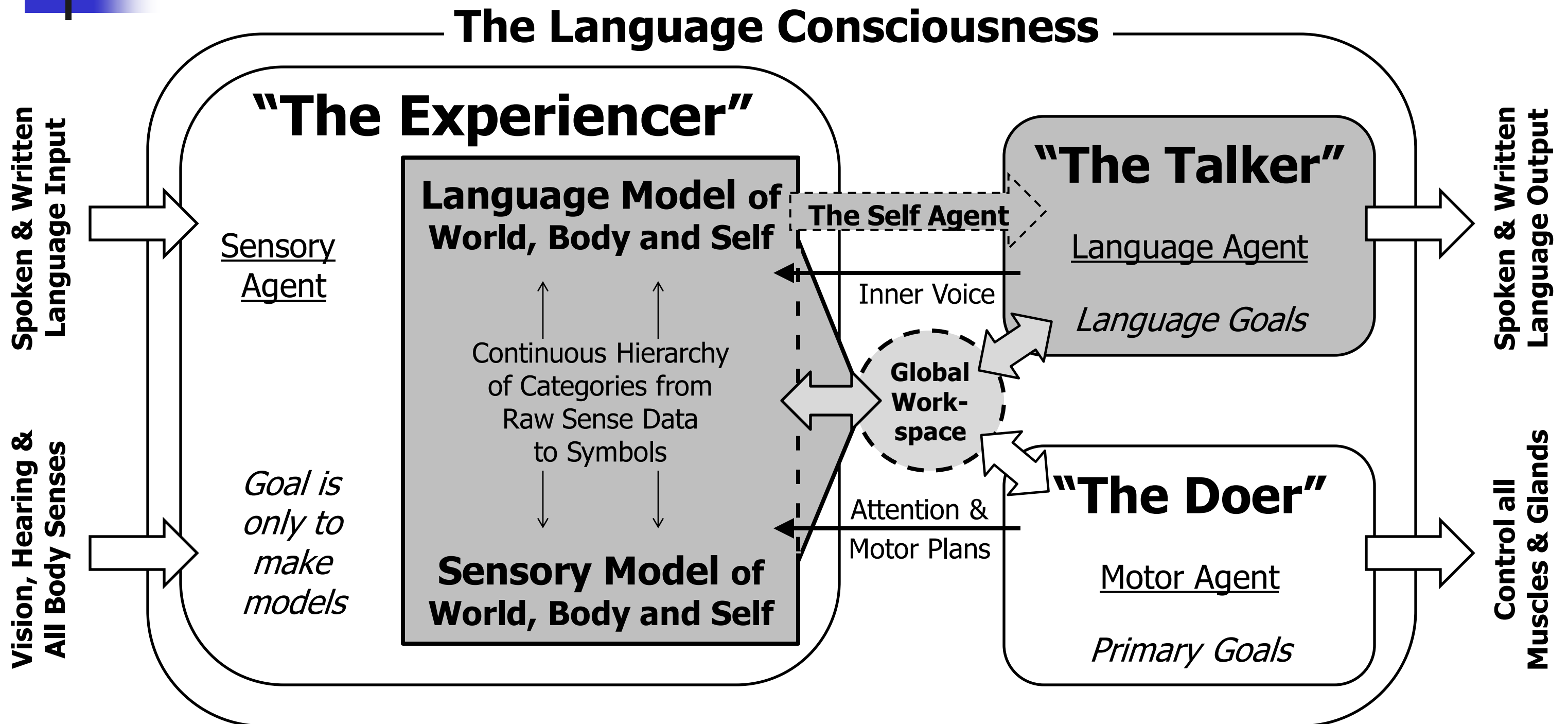


# Five Spiritual Stages Model

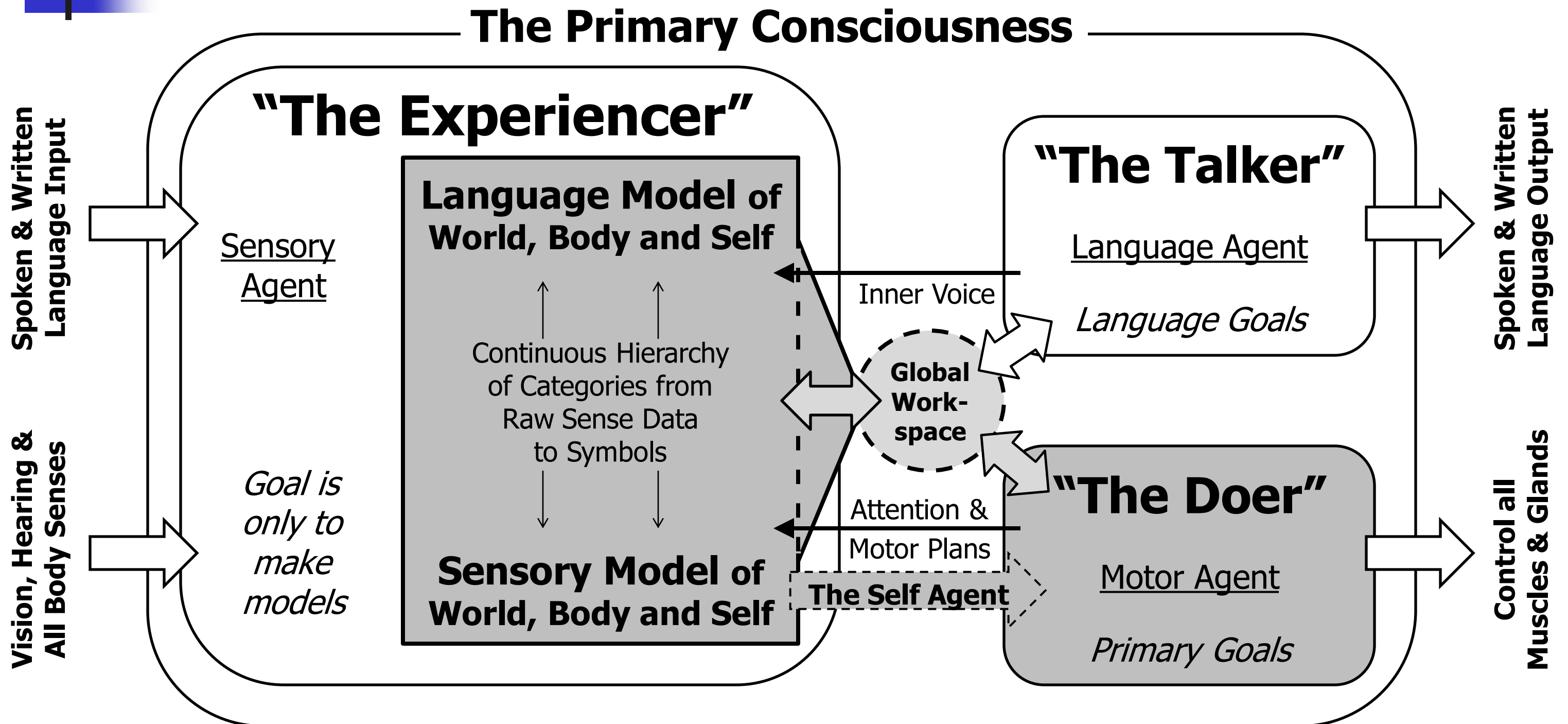
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- How real are these stages?
  - Stages 1 to 3 obviously apply to some people in our society.
  - Stages 4 and 5 (Unitive and No Self States) may not be as familiar but these are described in many Eastern traditions.
    - They have different names and different attributes because of their very different world views.
- Other names for either the Unitive or No Self states are:
  - Enlightenment, Nondual Awareness, Unity Consciousness, Nirvana, Mystical Experience, Peak Experience, Transcendental Experience, Union With God, The Peace That Passeth Understanding, & Persistent Non-symbolic Experience (PNSE)

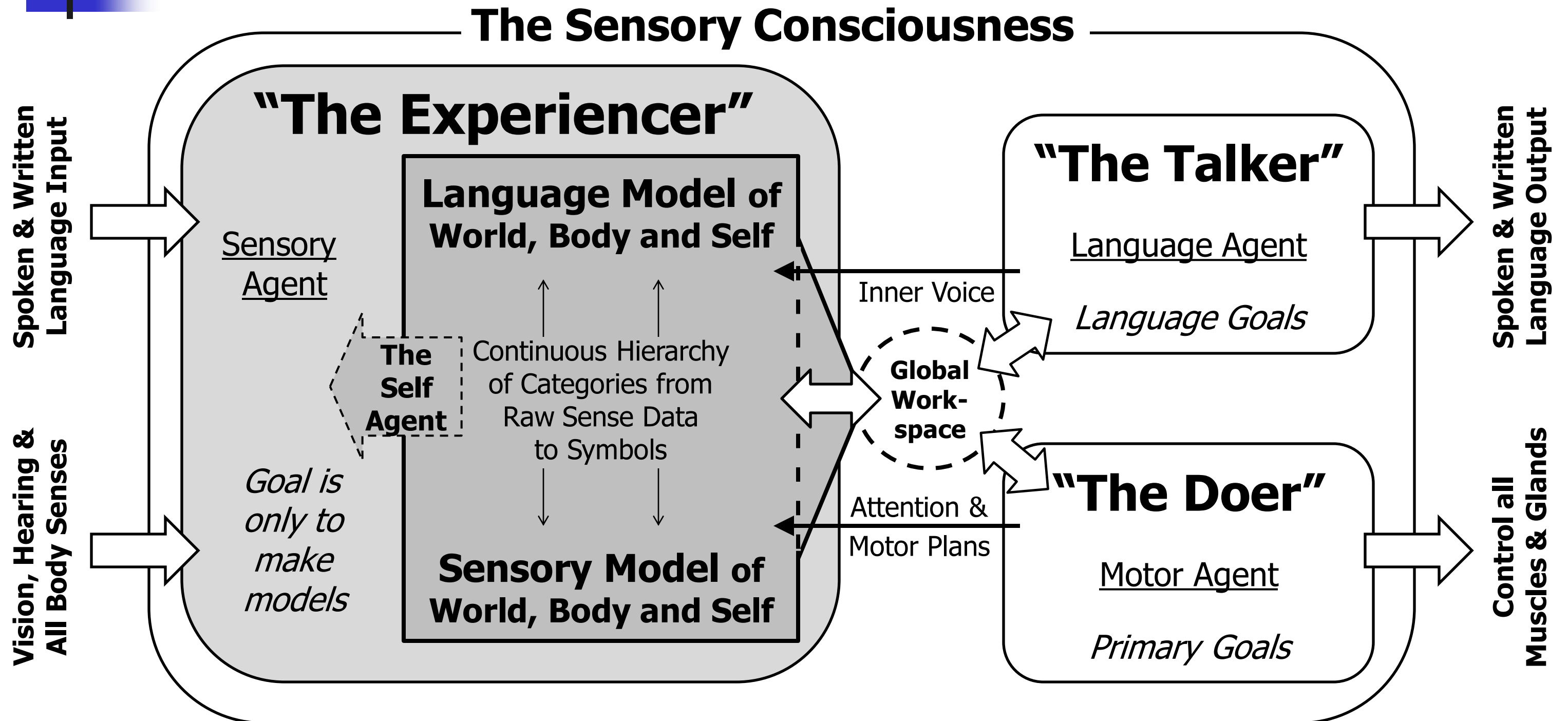
# Normal Human (Stage 1) up to Spiritual Stage 3:



# Stage 4: Unitive State: (PNSE Location 1 thru 3)



# Stage 5: No Self State: It may be that no animal is only a SC: the evolutionary goals should stop at the PC. (PNSE Location 4 or **Sensory Consciousness**)





# Spiritual Practices...

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- It assumed that some spiritual practices will **reduce** the **selfish and self-centered** LC goals.
  - This is what is responsible for Stage 1 to Stage 3 transitions.
  - If the selfish goals are **not** reduced, the result will be an enlightened person with selfish and self-centered behavior.
- This Three Agent theory will be used to explain how some of the **enlightenment techniques work!**
  - To explain how someone can transition from Stage 3 to Stage 4 (Unitive) or Stage 5 (No Self)
  - How, for example, is the “**self agent**” induced to transition between the Talker, the Doer and the Experiencer





# How Meditation Causes Enlightenment

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- Teachers tell students to **NOT** judge the meditation
  - This helps since the Talker is the judge.
- Two fundamental types of meditation:  
Focused Attention (**FA**) and Open Monitoring (**OM**)
  - It is said that OM is **more** effective than FA at causing enlightenment.
  - The **explanation** is that OM is **just** the **Experiencer** generating bottom up attention whereas FA has the **Doer** controlling the **Experiencer** using top down attention.



# How Meditation Causes Enlightenment

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- How **Focused Attention** helps:
  - Attempts to **control attention** will help since the Talker's inner voice most frequently interrupts & monopolizes attention.
  - **Body scan** – strengthens body sensation connections to GWS.
  - **Mantras** (e.g. the Praise/Thank/Love Mantra) – helps keeps Talker busy & enhances prosociality and positive emotions
- How **Open Monitoring** helps:
  - **Noting** – bottom up attention of the Experiencer will reinforce the PC and it also keeps the Talker busy with the noting.
- This can change who “**You**” are from the **Talker self agent** to the Doer or the Experiencer self agent.



# Headless Way ([www.headless.org](http://www.headless.org))

This is a technique where your visual attention is directed in steps from external objects to your own internal awareness. Your face in a mirror is your **public identity**, your internal awareness is your **private identity**. They also talk about the “**Capacity** for the world and body”.

- The **Public Identity** is mostly the Talker
  - Along with some of the visual or body sensations of the Doer.
- The **Private Identity** is the Experiencer
- The “**Capacity**” for “the world, the body or others” is exactly the **Experiencer’s model or representation** of “the world and the body.”
- They also note that the capacity for the world also includes the capacity for experiencing the **inner voice** and **emotions**. This shows that:
  - We are **NOT** the **Talker** (inner voice) and **Doer** (emotions)
  - The **Experiencer** is really who we are!



# Self Inquiry

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- By examining possible answers to the question “**Who am I?**”:
  - We see that we are **NOT** the **Talker** (we aren’t what we say)
  - And we are **NOT** the **Doer** (we aren’t the body and we aren’t what we do or feel)
  - That we are **presence awareness**:
    - Presence is exactly the **Experiencer** agent
    - Awareness is exactly the contents of the current world and body model of the **Experiencer**
  - Thus we see that we are the **Experiencer**
  - “What am I?” and “Where am I?” can also reinforce the conclusion that we are the Experiencer.



# Actualism ([www.actualfreedom.com.au](http://www.actualfreedom.com.au))

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(**PCE**=Pure Consciousness Experience, **AF**=Actual Freedom)

- A **PCE** is exactly the experience of the world & body that the Experiencer has
  - Compared to the Talker or Doer's experience that has to come through the GWS.
- Happiness is the provoked feeling that the Doer has based on circumstances
  - **Felicity** is the **unprovoked happiness** that the Experiencer has based on the fact that it is 100% successful at achieving all of its goals:
    - The Experiencer's only goal is to model the world & body – which it does very well.
- AF site says there are 3 ways of experiencing the world of people, things and events: 1. **sensate** (senses); 2. **cerebral** (thoughts); 3. **affective** (feelings)
  - This exactly corresponds to: 1. the **Experiencer**; 2. the **Talker**; & 3. the **Doer**;
- **Apperception** in AF is the universe experiencing itself:
  - Which corresponds exactly to the **Experiencer** experiencing its own internal model or representation of the world & body – the universe experiencing itself!
- Thus the AF state is where the self agent is exactly the Experiencer



# Living in the "Now"

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- The typical time frames of the three agents are:
  - The **Experiencer** is mostly modeling the current (**NOW**) state of the world, body and self plus a short time into the future.
  - The **Talker** is the long term future planner and uses extensive memory of the past to predict the future.
    - It is always rehearsing the future and rehashing the past.
  - The **Doer** is of a more intermediate future planner
    - Long motor actions sequences may be needed to achieve goals.
- So staying in the "**Now**" is staying in the Experiencer



# Acceptance

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- The Experiencer is the expert at acceptance:
  - It always accepts whatever sensory input it receives.
  - No sensory input can prevent it from achieving its goal of modeling the world as it is.
  - Whereas the Talker and Doer may complain about what is happening now if it prevents them from getting goals met.
- Krishnamurti once asked the audience:
  - “Do you want to know what my secret is?” [...] His answer was:
  - **“You see, I don’t mind what happens.”**
  - As the Experiencer, he does not mind what happens...



# Gratitude and Forgiveness

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- These are important spiritual virtues!
- In addition, the Talker is usually the agent that is **not** grateful and which does **not** forgive:
  - The Talker **complains** rather than being grateful.
  - The Talker also fosters **resentments** rather than forgiveness.
- Theists are frequently **grateful** to their God (i.e. the **PC**).
- **“Forgiveness is giving up all hope of a better past”**  
-Jack Kornfield
  - Which helps us live in the present moment instead of the past.
- This helps the self agent become the Doer or Experiencer.





# Not Seeking...

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- Seeking enlightenment means we get there in the future:
  - The **Talker** is the agent that **seeks**; since the Talker is the medium to long term future planner.
  - But the Talker **cannot** become enlightened, so it will **FAIL!**
- The **ONLY** place enlightenment can be found is:
  - **Right Here and Right Now!**
- Enlightenment happens when:
  - The Experiencer has accumulated enough evidence...
  - To change the “self agent” to **not** point to the **Talker** and
  - To make it point to the **Doer** or to itself, the **Experiencer**.
  - This only happens here and **now** and is not done by the **Talker!**

# Can the LC or Talker be Useful on the Spiritual Path?

- Is the LC or Talker **only** a villain? - NO!
- This theory is an LC theory that can be useful
  - Even though it cannot directly lead to enlightenment.
- PC evolved in tribes of only 50 to 200 people.
  - The LC can declare all 7 billion people on Earth are our tribe now.
- The more selfish Talker can see the value of having a goal of completely eliminating selfishness!
  - The Talker can then adopt that new goal
    - And try to overcome the Talker's own selfish goals with the help of the Doer!
    - As well as to even overcome the Doer's occasional (learned or innate) selfish goals or behaviors.
- In fact, the Talker may make the decision find and chose a spiritual path because of how unsatisfactory its life was.



# The End

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- Any Questions or Comments?
- If you would like a copy of this presentation, send the request to:

**frank@spiritualityexplained.org**

All I ask is that you send me some feedback after you have read it!



# Additional Slides

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- The following slides were not shown at the San Jose Atheist Meetup.
  - They start by presenting the details of other evidence for this model that were not covered due to time constraints.
  - Then it continues with additional slides from previous talks that I have given.



# Evidence for a PC & LC:

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## **Explains Many Psychological Experiments and Observations**

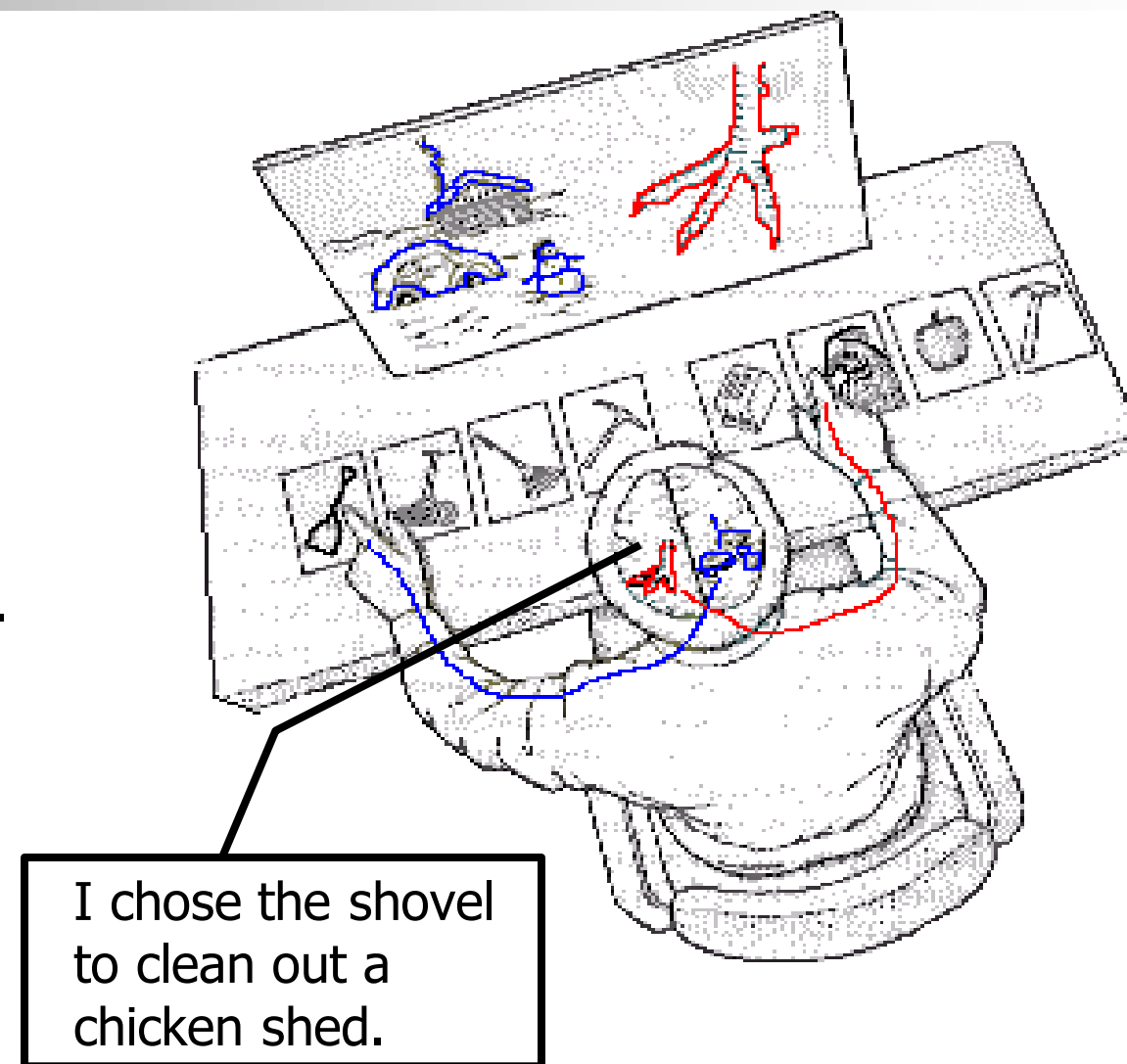
- Split brain experiments
- Theory of Mind (Sally – Ann tests)
- Blind Sight Phenomenon
- Non-conscious Perception and Priming
- Libet's decision delay experiments

## **Consistent With and Helps to Explain other Theories and Models about Consciousness**

- Daniel Dennett's meme complex
- Thinking Fast and Slow by Daniel Kahneman
- Ned Block's Phenomenal Consciousness vs. Access Consciousness
- Bernard Baars's Global Workspace Model
- Antonio Damasio's "Core" and "Extended" consciousnesses.
- Julian Jaynes' Bicameral Mind Consciousness
- The User Illusion by Tor Norretranders

# Split Brain Experiments

- Even when the language consciousness does not know what is going on, it will make up a story (or lie) about it.
- As an example, consider some of the split brain experiments:
  - In these patients, the corpus collosum is cut to control epilepsy
  - Then present one visual problem to the right hemisphere and a different problem to the left.
  - Each hemisphere solves the problem and the hand controlled by each is moved to the correct answer.
  - Since the left hemisphere is where most of the language input and output ability for the patient resides, the patient is able to tell why the hand controlled by the left hemisphere made its choice.
  - However the patient reports a made up reason for why the hand controlled by the right hemisphere made its choice – usually related to what the left saw.
- This is the language consciousness confabulating or making up a lie to explain why it did something that it did, in fact, not do.





# Theory of Mind: the Sally-Ann Test

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- A toddler is shown two dolls, Sally and Ann.
  - Sally has a basket and Ann has a box.
  - Sally puts a marble in her basket and then leaves the room.
  - Ann takes the marble out of the basket and puts it in her box.
- When Sally comes back, the experimenter asks the toddler where Sally will look for the marble.
  - Toddlers, at age 3, say that Sally will look for the marble in Ann's box since they know the marble is there.
  - At age 4, the toddler will say that Sally will look for the marble in her basket – where Sally last knew it to be.
- I claim this is evidence that between ages 3 and 4 the child's model of other people begins to include the fact that they also contain a model of the world, and that their model of the world may differ from the child's model of the world.
  - This is also evidence that consciousness does include a model of the world and a model of other humans models of the world.



# Blind-Sight

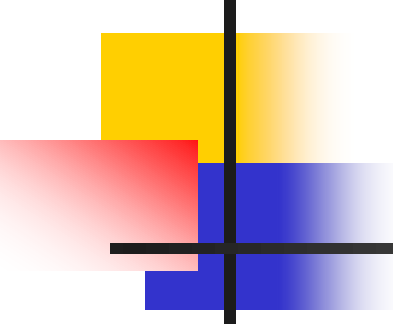
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- The phenomenon of blind-sight\* shows that something else is perceiving that which cannot be reported by the language consciousness!
  - That something else is actually someone else – our primary consciousnesses
  - Thus although the brain pathway used to directly report the stimulus was damaged, the primary consciousness does still perceive the stimulus and can give an intuitive nudge when the language consciousness makes guesses.

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\* **Blind-sight is the phenomenon where some injury to the brain causes the patient to be blind to the presence of an object in some part of the visual field (and therefore is not conscious of the object because he is unable to verbal report the presence of the object). However upon testing, it is evident that some part of the brain does know about the object since the patient does much better than chance on guessing the position, identity or other properties of the object.**





# Non-conscious Perception

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- Non-conscious perception is when a stimulus is presented for such a short time that the person cannot report that the stimulus was seen.
- However, the non-perceived stimulus can influence behavior or choices made later (priming).
- Again, this shows that something else is perceiving that which cannot be reported by the language consciousness!
  - That something else is actually someone else – our primary consciousnesses
  - Since the primary consciousness is parallel and the language consciousness is serial
    - It takes time to do the parallel to serial conversion
    - If the stimulus is removed before that conversion is complete, the language consciousness will not know about the stimulus.



# Libet's Decision Delay Expt

- Benjamin Libet demonstrated that the brain begins to prepare to make a spontaneous finger movement 0.55 seconds before the movement, but that the reportable consciousness of making the movement was only 0.35 seconds before the movement.<sup>†</sup>
  - I interpret this result as saying that the primary consciousness actually makes the decision to start the movement 0.20 seconds before the language consciousness is aware of the impending movement
  - And yet the language consciousness thinks that "IT" made the decision!
- This time delay can be thought of as the time needed to do a parallel (primary) to serial (language) "signal" conversion.

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<sup>†</sup> B. Libet, et al., "Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness Potential)," *Brain* 106 (1983) p. 640



# Comparison to Other Theories

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- Daniel Dennett† has a hypothesis about consciousness that states in part:
  - “Human consciousness is itself a huge complex of memes...that can best be understood as the operation of a...virtual machine implemented in the parallel architecture of a brain that was not designed for any such activity. The powers of this virtual machine vastly enhance the underlying powers of the organic hardware on which it runs, but at the same time...its limitations can be explained...by the kludges that make this reuse...[possible]”.
  - This is compatible with my hypothesis: the virtual machine running memes is our language consciousness with memes being language, whereas the underlying machine is our primary consciousness.
  - Dennett does not, however, claim that there are two consciousness beings.

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† D. Dennett, 1991, *Consciousness Explained*, Boston, Little Brown and Company, p. 210

# More Comparisons to Other Theories

- Ned Block:
  - Phenomenal Consciousness = Primary Consciousness
  - Access Consciousness = Language Consciousness.
- Bernard Baars et al.:
  - Global Workspace Model = Language Consciousness (& Primary Consciousness)
- Antonio Damasio\* proposes a "Core" consciousness and an "Extended" consciousness.
  - The Core Consciousness is only aware of the current time right now and is thus related to the Primary Consciousness
  - The Extended Consciousness can plan further into the future and reflect on the past and is thus related to the Language Consciousness
- The Bicameral Mind Consciousness theory of Julian Jaynes
  - The Left Brain is the Language Consciousness
  - The Right Brain is the Primary Consciousness
- The User Illusion by Tor Norretranders

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\* A. Damasio, *The Feeling of What Happens*, San Diego, Harcourt Inc, p. 16



# Additional Slides...

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- From previous presentations...



# Addictions

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- Addiction is pursuing one goal to the exclusion of other goals such that the overall effect on the individual is injurious.
  - The PC (i.e. animals) can become addicted.
- But I claim the LC makes humans **MUCH** more addictable than animals.
  - For example, animals in natural environment are not (easily) addicted.
    - Rats in standard wire lab cages become easily addicted to opiates, but addicted rats, when placed in a spacious “rat park” resist opiates and chose water instead.
      - See [http://en.wikipedia.org/wiki/Rat\\_Park](http://en.wikipedia.org/wiki/Rat_Park)
    - So the presence of a LC is also an “**unnatural**” environment!
  - The LC intensifies addiction by obsessing about the pleasures and about the suffering from the substance withdrawal.
    - *More evidence:* gambling addiction is a purely LC addiction since money is a purely LC construct.

# Alcoholics Anonymous and other 12 Step Programs

- Step 1: We admitted we were powerless over alcohol – that our lives had become unmanageable.
  - The LC admits it cannot control the alcohol or our life in general.
- Step 2: Came to believe that a Power greater than ourselves could restore us to sanity.
  - The LC coming to believe that the PC exists and could help.
- Step 3: Made a decision to turn our will and our lives over to the care of God as we understood Him.
  - This is the LC letting go of control and letting the PC run our lives.
  - This is where the sobriety comes from – letting “God” take over.
- The remaining 12 Steps then go on to help the alcoholic by:
  - Clearing up mistakes of the past (and present), letting go of other character defects, praying, meditating and carrying the message (becoming less self-centered).



# Time Frames

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- The Sensory Agent “**Experiencer**” is mostly modeling the current (**NOW**) state of the world, body and self
  - It can predict short term future states and will flag whether the current state diverges from it’s previous prediction
    - It directs bottom up attention to the divergence.
- The Language Agent “**Talker**” is the long term future planner and uses extensive memory of the past to predict the future.
- The Motor Agent “**Doer**” is of a more intermediate future planner
  - Long motor actions sequences may be needed to achieve goals





# No Agency in “No Self State”

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- Since The Doer performs the actions and The Experiencer just goes along for the ride.
  - The Experiencer has no feeling of agency about actions.
- Similarly, The Talker does all the talking both internally and externally
  - So the Experiencer has no feeling of agency about talking.
- Even when not in “No Self”, we can notice that we often (always?) cannot predict exactly what we will say or do.
  - This is the big hint that we **REALLY** are only “The Experiencer”.



# Nonduality in “No Self State”

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- The Experiencer is non-dual since “The Self” and “the world and the body” are essentially same.
  - The “world and body” that the self lives in is actually contained within the self!
  - Whereas in a Unitive or Normal state:
    - The self is different than the world and body and
    - in fact the self is not even contained in the world or body.
  - The Unitive state is closer to nondual since at least the world and the self are using the same kind of representational system.
- When the Experiencer experiences the world, in a sense, it is the world that is perceiving itself
  - **i.e. Nonduality**



# Why the “No Self” Label?

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- Most people think of themselves as being the entity that does things like talking or performing actions.
  - They may admit that some actions are automatic in some way, but there are still things that they “choose” to say or do
- In the No Self State there is no sense or feeling of agency at all for either actions or talking:
  - In this state, there is “No Self” that does anything in the external world.
  - The only thing the Sensory Agent does is to construct a model of the world and the body and this has no direct effect for the external world.
- That is why “No Self” is the usual name that people give for this state.

# Advantages of Spiritual Awakening

- A greatly simplified (and inaccurate) statement of the first and second of the 4 Noble Truths of Buddhism states:
  - Suffering is caused by attachment and aversion:
    - Attachment can be to pleasurable experiences or, more generally, attachment to achieving a goal.
    - Aversion is a fear of getting what we don't want, or not getting what we do want – in other words when the achievement of a goal is frustrated somehow.
  - Spiritual awakening results in letting go of attachments and aversions which results in a decrease (or elimination) of suffering.
- The Alcoholics Anonymous “Big Book” definition of a spiritual awakening is that it is:
  - A personality change sufficient to bring about from alcoholism.
  - That results in a profound change in our reaction to life.

# Advantages of Spiritual Awakening

- As mentioned previously, the language consciousness is an amplifier of **any** primary consciousness emotion.
  - So in the Unitive State it may seem that there are almost no emotions compared to the previous three stages.
    - However since we still identify with the PC\_Self, we will still suffer from the more limited emotions since they are affecting “us” (the PC\_Self).
  - In the No Self state there will be even less of an “experience” of emotions.
    - Ideally the emotion would be perceived as if it was like any other sensory perception.
  - So in both the Unitive State and the No Self State there will be greatly reduced attachment and aversion which results in greatly reduced (Unitive) suffering or eliminated (No Self) suffering.



# Spiritual Experiences

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- When someone enters either the Unitive or No Self states, they will have some very unusual experiences:
  - That could be described as either a Mystical Experience, a Peak Experience or a Transcendental Experience.
- However, there are spiritual experiences that can happen at earlier stages such as either the spiritual surrender or virtue seeker stages:
  - **If** the primary consciousness agent realizes that life would be better if the language consciousness surrendered more to the primary consciousness,
  - **Then** the primary consciousness could fabricate a visual or auditory hallucination to convince the language consciousness to surrender
    - Or at least acknowledge the existence of, and seek the primary consciousness.
  - This could be the explanation for the “**burning bush**” types of spiritual experiences that are reported.



# Bernadette Roberts

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- Bernadette Roberts is a former Carmelite nun and a contemplative in the Catholic tradition.
- In her book “What is Self?: A Study of the Spiritual Journey in Terms of Consciousness,” she describes exactly the Unitive State and the No Self State.
  - She uses those terms and reports that the transitions between those two states were many years apart.
  - According to the Christian contemplative literature, many contemplatives have achieved Unitive Consciousness
    - But Roberts seems to be the first contemplative to get to a No Self state!
  - Her descriptions of this whole process are from the Catholic tradition:
    - But her terms can be mapped to the terms in this theory and makes it easier to understand (at least for me).

# Self Awareness and Consciousness

- Bernadette Roberts has a interesting way of saying it:
  - She says the “mind bends on itself”
    - In other words the attention mechanism that normally “looks” out to the world or to the body, instead “looks” to the mind itself.
  - Then she talks of two kinds of “mind bending on itself”:
    - “Reflective self awareness” – (also: “ego” or “conscious self”)
      - This is a top-down attention mechanism bending on itself and becoming aware of itself
    - “Reflexive self awareness” – (also: “true self” or “unconscious self”)
      - This would be a bottom up attention mechanism (similar to a reflex) bending on itself and becoming aware of itself.
  - So she says there are two conscious entities:
    - “Consciousness **IS** this **reflective** self awareness **and** it **IS** also this **reflexive** self awareness.”!



# Self Awareness and Consciousness

- Primary and language consciousness each have **both** top down **and** bottom up attention mechanisms:
  - But when top down attention is used, the self being referenced will make it to the global workspace and activate the LC\_Self representation:
    - So this “**reflective self awareness**” will always activate the **LC\_Self** also known as ego or conscious self.
    - This is because bottom up language consciousness attention always makes it into the global workspace (the voice in the head is always conscious).
  - The only way to have a bottom up attention mechanism activated that does not make it to the global workspace is in the primary consciousness.
    - So this “**reflexive self awareness**” can only activate the **PC\_Self** also known as the true self or unconscious self.
    - This is a much more subtle self – if you actually “think” about it at all, it will rise to the global workspace and become the “reflective self awareness” or LC\_Self.

# Self Awareness and Consciousness

- So my interpretation of Bernadette Roberts is that:
  - the **LC\_Self** is the “**reflective self awareness**” and
  - the **PC\_Self** is the “**reflexive self awareness**”.
- This fits well since she says the reflective self awareness is the **first** to fall away to form the **unitive state**
  - The **ego** and **conscious self** are other names she uses for the language consciousness LC\_Self.
- The **last** to fall away is the reflexive self awareness and this is when the **no self** state is entered.
  - She also calls this last self the **true self** or the **unconscious self** and thus these are also names for the PC\_Self.



# Part 3: Philosophical Musings...

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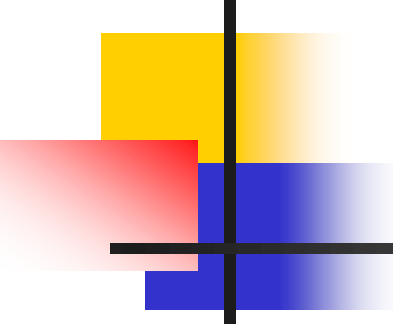
- **As will be obvious, I am not a philosopher...**
- Many spiritual paths (and religions) claim that their path is the (only) way to achieve Absolute Truth or Reality.
  - And their personal experience proves that it is True and Real.
  - I don't think that any particular experience (or theory) can discover absolute truth or reality.
  - This theory is also not absolute truth.
- It is also not correct to even say that science achieves Absolute Truth or discovers Absolute Reality



# Meaning and Understanding

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- What does “meaning” mean? Why do you “understand” some messages and why are some messages meaningless?
  - Consider the **sentence**: “*Frank Heile, was born in Cincinnati.*” versus the **poem**: “*’Twas brillig, and the slithy toves / Did gyre and gimble in the wabe: / All mimsy were the borogoves, / And the mome raths outgrabe.*”
    - The **sentence** is “meaningful” because your language model of the world has been updated and the changed language model can make a difference in your future behavior.
      - For example your answer to: “Where was Frank born?” would be different.
    - Whereas the meaningless **poem** makes no significant change to your future behavior – it produced no significant change to the language or primary consciousness model of the world..



# Meaning and Understanding

---

- Similarly perception involves “understanding” what is perceived.
  - If you perceive something, it means your primary consciousness representation or model of the world has been updated and can cause changes in future behavior.
- The only way a machine will ever give good high quality (human level) translation from one language to another is:
  - When the machine has, and can update, the equivalent of both the language and primary consciousness representation or model of the world (in both languages).
    - Then the input in one language updates the model and the updated model changes are output in the other language.

# David Deutsch book: "The Beginning of Infinity"

- David says that science is about discovering "**good explanations**"
  - (See his book for a **full explanation** of what a "**good explanation**" is and is **NOT** – for example, good explanations are not just about making good predictions...).
- He says: (The quest for good explanations) "also implies a methodological rule – **a criterion for reality** – namely that we should conclude that **a particular thing is real if and only if it figures in our best explanation of something.**" (pg. 22)
  - And therefore as our best explanations change and improve what we think is "real" could change.
- The primary consciousness of an animal is trying to come up with its "best explanation" of the world.
  - Animal bodies & brains have "discovered": that the universe is 3 dimensional in space; that time has a past, present and future; about cause and effect; that objects tend to persist in time; about days & seasons; how to detect chemicals, light & sound, etc...

# What are the representational and modeling systems doing?

- Similarly, the human language and primary consciousness systems are also coming up with their best “explanation” of the world.
  - So, using the language consciousness to do science is a continuation of the primary consciousness’s goal of coming up with better and better explanations.
    - I think David Deutsch’s idea of “**best explanations**” are the best answer to the questions of how to do both epistemology and ontology!
- So the language and primary consciousness systems, together, are doing epistemology and ontology!
  - I think many philosophers try to define epistemology in terms of language only: that is doomed to failure – you need a primary consciousness also, IMHO.
  - That is why I like “logical positivism”. My translation of that would be: **“Language consciousness statements are only meaningful if they can be transformed into a verifiable primary consciousness perception.”**



# Free Will

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- Libet's decision delay experiments can be a problem for people who believe in Free Will. My solution:
  - The language consciousness thinks it has free will in situations where the primary consciousness actually made the decision
    - So sometimes there is a language consciousness free will and sometimes there is a primary consciousness free will.
    - The language consciousness always confabulates that it has the free will.
- So with two conscious entities, there are two agents that have free will.
  - But it cannot be the LC\_Self or the PC\_Self since presumably people in the No Self state still have free will.
  - Therefore the "agents" exercising free will must be the LC\_World and PC\_World considered as agents.





# Free Will

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- So the definition I propose for the actual exercise of free will is:
  - **If** an agent/representational system (with goals) makes an algorithmic determination to execute an action that is consistent with its goals and its representation/model of the world & self, **then** the agent has exercised its **free will**.
    - So it does not matter if the algorithm is completely deterministic or has varying amount of (chaotic or quantum) randomness.
      - Therefore this is a compatibilist form of free will.
  - If something (a seizure, a tumor, external coercion, etc), that is not part of the “normal” model of the world, interferes or prevents the “normal” algorithm from producing the “normal” result then there was **no** (*or reduced*) free will exercised.



# Free Will Responsibility?

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- If an agent has exercised free will, then:
  - Since the representation/model of the world would include specifications for possible consequences for any action it takes, therefore the agent can and should suffer the consequences specified (by law or custom) for its exercise of free will.
- So, who “I” am is the sum total of the complete representational system or model of the world and self.
  - In particular, “I” am **not** the LC\_Self or even the PC\_Self. This is what causes trouble for people when they think about free will.
    - How can the “self” decide anything in a vacuum (or even in a LC\_World or PC\_World) – it cannot!
  - For a normal human: “I”=PC\_World+PC\_Self+LC\_World+LC\_Self and for the No Self state person: “I” = PC\_World+LC\_World.

# What if you don't agree that these two "entities" are conscious?

- Almost everything I say could use the words "language agent" and "primary agent" instead of "language consciousness" and "primary consciousness".
  - I hope you could agree to those "agent" terms.
    - The evidence for two distinct kinds of processes in the brain is overwhelming (see Kahneman)
    - After all, it is true that "consciousness" doesn't really "do anything" - other than experience whatever it is conscious of!
    - So it is really the agent part of my conscious agent hypothesis that is "doing anything" anyway.
  - However, we all think we are "a" consciousnesses, don't we? When asked in language "Who are you?", we give a language description of who we are.
    - You say "I am such and such and I decided X, Y and Z."
    - If that is what you say, aren't you a language consciousness?
  - When we experience qualia we are experiencing a primary consciousness experience.
    - So then you are a primary consciousness!
- So, if you are skeptical, just try on the hypothesis that we are both a language consciousness and a primary consciousness and see where that leads.
  - The ability to understand and explain spirituality is part of the evidence and support for saying that these are two conscious beings and not just agents.



# Overall Conclusion

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- The hypothesis that there are two conscious entities in the brain explains (and hopefully is a “best explanation” for):
  - Many characteristics of consciousness and of our conscious experiences
  - Are consistent with and explain psychological experiments and other consciousness models
  - Gives a model of different stages of spiritual awakening and can motivate practices...
  - Give insight to the origin and purpose of the Theistic and Non-Theistic Spiritual Traditions.