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How does Cognition Influence Emotion?

香港公開大學
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Contents

Chapter 1 Consciousness, Emotion and Cognition- How the Mind Works: An Over view from different Approaches 1
Is Attention Necessary for Consciousness? 1
Implicit Processesing and Attention 2
1.1 How the Mind Works 5
1.1.1 How the Mind Thinks 5
1.2 Bibliography 6
Chapter 2 How does Cognition Influence Emotion? 7
2.1 Introduction (Part 2) 7
2.2 Decision Making, Memory and Emotion Regulation 9
2.3 Unconscious Processing 9
2.3.1 Is it Simple? 9
2.3.2 What information is absorbed consciously vs. unconsciously? 10
2.3.3 Is Conscious Understanding Subjective or Objective? 10
2.3.4 What Classifies Material as Conscious vs. Unconscious? 11
2.3.5 Emotional Material is Unconscious and Factual Thinking is Conscious 12
2.4 Representation in the Mind 12
2.5 Points made in this essay 12
2.6 A Related Article 13
2.7 Theory of mind 14
2.8 Consciousness? 15
2.9 Consciousness in the brain 16
2.10 My Theory 17
2.10.1 How can Intellect in the brain be categorized? 18
2.11 Subjectivity and Emotion 19
2.12 Observation vs. Inference 20
2.13 Bibliography 22
Chapter 3 Emotion and Reason - How We Decide 24
'Understanding' 24
'Deciding' 24
'Truth' 25
3.1 Is Thinking Automatic? 25
3.1.1 Unchangeable Feelings 26
3.1.2 Engaging Stimuli 26
3.2 Implicit Knowledge 26
3.3 Consciousness 28
3.3.1 Perceptual vs. Action Consciousness 28
3.4 Bibliography 29
Chapter 4 The Nature of Consciousness - Perceptual, Representational or First O rder - or are People as Confused as their Definitions of Conscious States? 30
4.1 Explaining Consciousness 30
4.1.1 Phenomenal or 'Experience" Consciousness vs Functional Consciousness 31
4.1.2 Conscious vs. Unconscious "Consciousness" 33

4.1.3 Physical vs. Mental Consciousness 33
4.2 The Nature of Consciousness 34
4.3 Categorizing Functions of the Mind 36
4.3.1 How are stimuli expressed in the mind? 36
4.3.2 Recalling Experience 36
4.3.3 Mental Reality and Physical Reality 37
4.4 Bibliography 37
Chapter 5 The Definitions of Meta Representation and Meta-Cognition 38
5.1 Meta-Representations 38
5.1.1 What is the difference between representing beliefs vs other thoughts? 40
5.2 Bibliography 41
Chapter 6 A Discussion about the Mind and Consciousness 42
6.1 Concepts 42
6.1.1 Concepts and experiential qualities 43
6.1.2 Words provide management of images 44
6.1.3 Conclusion 45
6.2 Bibliography 46
Chapter 7 The Role of Consciousness in the Mind 47
7.1 Bibliography 49
Chapter 8 Consciousness: Perceptions and Concepts 50
8.1 Is the mind physical or mental? 52
8.2 How are words processed with concepts and knowledge? 52
8.3 Concept aquisition 53
8.4 Concept categorization 53
8.5 Bibliography 54
Chapter 9 The Scope of Consciousness and the Conceptual 55
9.1 Concepts, Perceptions and Beliefs 55
Chapter 10 An Idea of Mental Abilities Cognition, Language and Developtnent..56
10.1 Emotion is a powerful motivator 56
10.2 Classifying types of mental information 57
10.3 Bibiography 57
Chapter 11 Dreams Rarely Make Sense Because They Are Usually More Emotiona l Than Logical 58
11.1 Dreaming and the Brain 61
11.2 Images in Dreaming 63
Chapter 12 How can someone benefit from an understanding of psychology? ..65
Chapter 13 Psychology for Self Help 67
Chapter 14 Unconscious Thinking and Feeling - And Cognitive Behavioral Therap y....68
Chapter 15 My Theories about Mindfulness based cognitive therapy....70
Chapter 16 What is Thinking - or as Scientists name it - 'Cognition'?....72
Chapter 17 Some Points on Emotion Theory 74
17.1 An explanation for this chapter: 77
Chapter 18 Personality and Interpersonal Behavior 78
Chapter 19 Emotions and Feelings and How to Change Them 79
An explanation for this chapter: 82

The significance of this chapter: 82
19.1 How to Change Emotions and Feelings 83
Chapter 20 What is Reasoning Ability? - A Subjective Article Relevant to the study of Cognition and Emotion 88
Chapter 21 An Outline of Consciousness 90
Two types of consciousness 92
21.1 Types of Thinking 92
21.2 A Thinking Consciousness 93
21.3 Higher order representations 94
Chapter 22 What is Logical or Rational Thinking, and how does it relate to Reasoning, Heuristics, Biases and the Rationality Debate? 97
What else is to be said about subjective reasoning? 97
Feelings effect our lives 98
the most emotionally relevant factor is the motivator 98
computational components underlying intelligence 98
22.1 Semantics versus Cognitive Representations 98
22.2 So what exactly is a 'Subjective Evaluation'? 100
22.3 How to develop a logical reasoner 100
Hypothetical reasoning 101
Heuristic vs. Rule-based processing 101
Conscious vs. unconscious intuitions 103
Ways of thinking 103
22.4 The Nature of Reasoning 104
Things can be viewed in more than one way 105
All art is subjective 106

Chapter 1 Consciousness, Emotion and Cognition- How the Mind Works: An Overview from different Approaches

How does the mind think? Attention and feeling are two processes that play a role with any thought a person may have. A feeling could encourage or inhibit a thought or an attentional process (or both). There are many questions to ponder about thoughts, feelings and how they work in the mind. - For instance, how does the content of the thought influence the experience of the thought? If you think a happy thought does that always bring up a happy feeling, or does it bring up a negative one? Does it make you think faster or slower? How does it change your experience of time and emotion? Finally, if a thought is harder or easier to understand, how does that change the nature and experience of the thought (or thought process)?

Executive functioning is by definition how the mind manages its own cognitive processes. Executive functions (also known as cognitive control and supervisory attentional system) is an umbrella term for the management (regulation, control) of cognitive processes [1], including working memory, reasoning, task flexibility, and problem solving [2] as well as planning and execution. [3]

Is Attention Necessary for Consciousness?

This question is related to executive functioning because you could say that a humans mind pays attention to all of its cognitive processes, and that this attention is part of the same attention capacity that a human notices it has. People can notice what they are looking at, if they are focused on their emotions or thoughts, or what they are doing and if they are paying attention to that.

The type of attention people have that they aren't aware of is the more scientific cognitive abilities their mind has that it is doing while they are doing something they can notice themselves. For instance if your mind is inhibiting a feeling you might not notice that, or if you are pulling up information or experiences from memory you might not notice that either.

A more complex cognitive ability that uses attentional resources is thinking. You might be using words consciously or unconsciously to think about something. You might also be using experiences or memories or visions (all consciously or unconsciously) to think

1. Elliott R (2003). Executive functions and their disorders. British Medical Bulletin. (65); 49–59
2. Monsell S (2003). "Task switching". TRENDS in Cognitive Sciences 7 (3): 134–140
3. Chan, R. C. K., Shum, D., Toulopoulou, T. + Chen, E. Y. H., R; Shum, D; Toulopoulou, T; Chen, E (2008). "Assessment of executive functions: Review of instruments and identification of critical issues". Archives of Clinical Neuropsychology. 2 23 (2): 201–216.

about something. People use a term psychologists and cognitive scientists termed 'schema' to help think (schema are sort of the 'already learned' aspect of thinking):

Schema

- In psychology and cognitive science, a schema (plural schemata or schemas) describes an organized pattern of thought or behavior that organizes categories of information and the relationships among them. [4] It can also be described as a mental structure of preconceived ideas, a framework representing some aspect of the world, or a system of organizing and perceiving new information. [5] Schemata influence attention and the absorption of new knowledge: people are more likely to notice things that fit into their schema, while re-interpreting contradictions to the schema as exceptions or distorting them to fit. Schemata have a tendency to remain unchanged, even in the face of contradictory information. Schemata can help in understanding the world and the rapidly changing environment. People can organize new perceptions into schemata quickly as most situations do not require complex thought when using schema, since automatic thought is all that is required. [6]
- People use schemata to organize current knowledge and provide a framework for future understanding. Examples of schemata include academic rubrics, social schemas, stereotypes, social roles, scripts, worldviews, and archetypes. In Piaget's theory of development, children construct a series of schemata to understand the world.
- Through the use of schemata, a heuristic technique to encode and retrieve memories, the majority of typical situations do not require much strenuous processing. People can quickly organize new perceptions into schemata and act without effort. [7]

So basically people use preconceived notions of the world (termed 'schema') to help themselves think. It makes sense that it is easier to think if you have the experience or thought (or some of the experience or thought) already thought out.

Implicit Processesing and Attention

Dual process theories often have a controlled (or explicit) process and an automatic (or unconscious, implicit process). Here is Jan De Houwer and Agnes Moors (Houwer, Moors):

- We propose implicit processes are processes that possess features of automaticity. Because different automaticity features do not necessarily co-occur, we recommend specifying the automaticity features one has in mind when using the term implicit.
- The starting point of our analysis is the postulate that the meaning of the term implicit is identical to the meaning of the term automatic.

4. DiMaggio, P. (1997). Culture and cognition. Annual Review Of Sociology, 23263-287. doi:10.1146/annurev.soc.23.1.263
5. http://www.psyctherapy.com/Enrolled/glossaryBody1.htm Retrieved 7 March 2013.
6. Nadkarni, S., + Narayanan, V. K. (2007). Strategic schemas, strategic flexibility, and firm performance: The moderating role of industry Cclockspeed. Strategic Management Journal, 28(3), 243-270. doi:10.1002/smj.576
7. Kleider, H. M., Pezdek, K., Goldinger, S. D., + Kirk, A. (2008). Schema-driven source misattribution errors: Remembering the expected from a witnessed event. Applied Cognitive Psychology, 22(1), 1-20. doi:10.1002/acp.1361

- For instance, all automatic processes are assumed to be unintentional, uncontrolled, unconscious, efficient, and fast whereas all non-automatic processes are assumed to be intentional, controlled, conscious, inefficient, and slow. According to this view, it is relatively easy to diagnose a process as automatic. It suffices to demonstrate that the process possesses one of the automaticity features. If it has one of the features, it can be assumed to have all other automaticity feature and thus to be fully automatic.
- It became clear, however, that the different automaticity features do not always cooccur. Evidence from Stroop studies, for instance, suggests that the processing of word meaning is automatic in that it does not depend on the intention to process the meaning of the word. At the same time, word processing is non-automatic in that it depends on the allocation of attention to the word

Rainer Banse and Roland Imhoff outline some social cognitive dual process theories:

- Unlike the psychoanalytic notion of the unconscious as a powerful monitoring system that strategically decides whether pieces of information are allowed to become conscious or not, contemporary social cognition theories rather assume that implicit content can operate outside of awareness because it is automatically activated. Contemporary dual-process theories postulate two distinct information processing systems. For example, the Reflective- Impulsive Model of social behavior by Strack and Deutsch (2004) distinguishes a reflective and an impulsive system of information processing. The reflective system is based on propositional knowledge representations (i.e., information in the form of declarative sentences that are either true or false) and can perform complex, logical operations. This system is flexible and powerful, but it requires cognitive resources and allocation of attention. The impulsive system is based on an associative network and operates by the principle of spreading activation. Unlike the reflective system the impulsive system operates in an automatic fashion and does not require cognitive resources or the allocation of attention. However, the fact that automatic or implicit processes do not require attention does not imply that the content or outcome of implicit processes are ipso facto unconscious.

They mention that the impulsive system (which would be the unconscious) "operates in an automatic fashion and does not require cognitive resources or the allocation of attention". However, if your mind is doing something then in a way you are giving it attention. It really depends on how you define attention. They say it doesn't require cognitive resources or the allocation of attention because they mean conscious attention that people notice. And by 'cognitive resources' they mean conscious cognitive resources, which are more limited than unconscious resources.

Unconscious resources are more limited than cognitive resources because when you think consciously it requires more effort then if you just do something unconsciously. To make a process conscious you have to think about it more consciously and deliberately to yourself. If your mind is doing something by itself and it comes easily and naturally then you don't have to think about it as much and it is then more automatic, faster, and requires less resources. - However, that doesn't mean that you aren't paying attention to it. In experiences where basketball players get a 'hot hand' and experience what is termed 'flow' in psychology, then they are operating more

unconsciously because the unconscious is more efficient than conscious processes. They can ignore things bothering them or disrupting a high performance better.

So when they say 'the impulsive system operates in an automatic fashion and does not require cognitive resources or the allocation of attention' they really mean it just doesn't require as much, if you think about how such processes would play out in reality - then they clearly use cognitive resources and the allocation of attention - the impulsive system never acts alone, conscious effort is always involved with any action, just not as much or maybe only a little when the impulsive or unconscious system is engaged.

So if a human mind is using explicit and implicit processes (by that I mean conscious and unconscious processes) how much attention is the person giving the process, and are they consciously or unconsciously directing it (in other words, how 'meta' or how much are they consciously thinking about their unconscious and conscious cognitive processes)? Here is Sun and Matthews on metacognition and dual- process theories:

- Thus, combining these two points of view, we may argue that both implicit and explicit cognitive processes are involved in metacognition. Reder (1987) took a view similar to this, in that she posited that a two-stage process was involved in judgment that invoked implicit similarity-based processes first and then a more explicit, deliberative, and analytical process that examines individual dimensions of stimuli. Narens et al (1996) also appeared to indicate that metacognitive judgments (such as feeling of knowing) might be the result of both explicit and implicit processes, because such judgments are equally predictive of explicit and implicit memory.
- Norman and Shallice's (1986) view is more akin to our view here. They posited the coexistence of two kinds of processes: (1) fast, automatic processes, which are triggered by stimuli and are inflexible; (2) slow, conscious processes, which are independent of stimuli and are flexible. The former is used in skilled performance, while the latter deals mostly with novel situations. In the former, different schemata can be triggered by stimuli and, through lateral inhibition, compete to be activated (which is termed "contention scheduling" by Norman and Shallice). In novel (nonroutine) situations, however, a supervisory attentional system decides on schemata selection and overrides automatic processes and their contention scheduling. Shallice and Burgess (1991) divided supervisory processes into four cate- gories: (1) plan formulation and modification, (2) marker creation and triggering, (3) goal articulation, and (4) memory organization. (These aspects are encompassed by our model.)
- Note that our view of top-down influences here is opposed to the view of Reder and Schunn (1996), which believes that metacognitive strategy selection cannot be taught explicitly. Our emphasis of bottom-up influences is also contrary to the view that metacognitive activities are necessarily implicit. Our view is that metacognitive processes are implicit in a variety of circumstances: such as during initial learning of such skills through trial and error, when such processes are well practiced (so that no explicit deliberation is necessary), or when cognitive load is high (so that explicit metacognitive processes may interfere with regular processes and degrade performance). In other circumstances, they may become explicit.

The last three quotes about dual-process theories explained that there are unconscious processes that are not controlled - when first learning a skill or a material, conscious direction and metacognitive processes are more necessary, however as it becomes more automatic it becomes more unconscious.

But what does it mean when they say that 'metacognitive processes are are implicit in a variety or circumstances'? What does that mean exactly? I would say that thinking directly about something too much interferes with processing - it is clearly easier and more efficient to do something more unconsciously. However, you aren't necessarily learning as much or you might not understand what is going on as much if you are doing something unconsciously.

1.1 How the Mind Works

Through a discussion of schema and dual-process theories I introduced a little of how the mind thinks. The mind conceives notions of the world and stores these notions or ideas in their mind as schema. The mind also works consciously and unconsciously - from the ideas of dual process theories 'system 1' is the unconscious; which is low effort, large capacity, rapid, automatic, non-verbal and non-logical while 'system 2' - basically the conscious mind - is the opposite.

I guess the question is when exactly is system 1 and system 2 engaged? Are some thoughts strictly 'unconscious' while other thoughts strictly 'conscious' - or can a thought have unconscious components? Similarly, can a performance or action have conscious and unconscious aspects?

Whenever a behavior is more automatic it is then more learned and unconscious because you don't have to think about it as much as when you learned it or are thinking about it in a new way or something. I already mentioned how this is similar to understanding what in psychology is termed 'flow' or in sports is simply termed being in the 'zone'. Conscious thinking and feeling can be difficult or easy - it is probably easier when you are using unconscious processes and influences because then the thinking or feeling is more automatic.

1.1.1 How the Mind Thinks

People automatically use metaphors and analogies to compare and contrast ideas and information in their mind. Obviously visions or images are going to be used to help describe some of the concepts that are being compared. A concept might not need a vision; however, if it doesn't have a simple vision tied to it. For instance if you think of a person then the vision of a person might be connected; however your description of that persons personality - if they a nice or mean, smart of stupid - wouldn't have a simple vision tied to it because you are describing behavior. You might pull up various

visions of them being nice or stupid in order to reinforce the concepts - however they are probably less tied to vision than concepts that are more simply visual.

Humans minds use schema to store complex sets of information or ideas. In this way understanding of the world can build and change when your current ideas and concepts are challenged by new information. Schema are not likely to change easily, however, as people are biased and more likely to notice things that fit into their currently held ones.

My guess would be that some schema are more unconscious and some are more accessible to consciousness - probably depending on what you were doing recently and if it related to some of the schema you hold. In this way your thinking can be influenced by the ideas that you learned and formed in your mind into schema.

Your unconscious mind holds many preconceived notions ('schema') and uses metaphors and analogies and visions all of the time. Depending on the circumstance different aspects of the world are going to be more accessible to consciousness. In this way the unconscious mind and conscious mind work together to help guide thoughts and feelings - depending on how unconscious a thought or feeling is helps to determine if it is logical, verbal, or easy to process (all of those are aspects of 'system 1' or the unconscious) or not.

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- Rainer Banse and Roland Imhoff In J. A. Simpson and L. Campbell. The Oxford Handbook of Close Relationships. Oxford University Press.
- Sun, R. + Mathews, R. C. (2003). Explicit and Implicit Processes of Metacognition. Advances in Psychology Research. Pp3-18. Nova Science Publishers, Hauppauge, NY

Chapter 2 How does Cognition Influence Emotion?

Some mental factors (processes) are the link between cognition and emotion - such as basic imagery (body images), thoughts, and other cognitive associations and structures.

How exactly does the mind 'think' however? I could say that it uses images to think, and that these images are mostly unconscious. That would be similar to having a dream, in a dream simple images represent larger psychological ideas and life experiences. The images your mind uses to think are probably basic, similar to how a computer works with simple switches at the most simple level. The most basic and important mental images are used to represent more significant psychological 'code' or life experiences (like body images - since social interaction is important humans would be broken down in the mind into simple visualizations).

So I think that the mind basically thinks by breaking down the psychological factors of life into more simple images. If you have an interaction with someone, then that interaction is broken down into more simple body-images and other images that represent what occurred in the interaction. These images are probably unconscious, you would not notice in what order your mind is going through them or what they are exactly.

This means that your minds cognitions (such as images and thoughts) are going to influence your emotions. The real world is broken down into thoughts and visualizations (or psychological 'symbols') in your mind, and these mental processes influence your emotions.

2.1 Introduction (Part 2)

There are two major types of emotional experience - one is the obvious one which people experience daily and that is the major emotions they are experiencing as a result of their activities. The other type of emotional experience is one that is driven by deep unconscious factors, and it relates to your strong inner motivations, hopes, fears, expectations for the future, and how you perceive reality.

If you think about it, this makes sense. Emotion is generated by obvious factors - such as person A causes an emotional reaction in person B - and less obvious factors - such as person A has a strong inner desire to save lives, so when they see things that remind them of this, strong emotions are invoked. Emotions that are generated by strong, possibly hidden inner desires are much less obvious than emotions that are the direct result of experiences.

It is hard to measure emotion in both cases though. You can guess that if someone is doing a fun activity they are going to experience the emotion of 'fun' or other 'happy' emotions, but guessing what someones inner desires and motivations are is probably going to be much more

This relates to important concepts that influence how you perceive life, and how your emotions are generated. If you think about it, it makes sense that there are going to be emotional reasons you do things that you aren't aware of the motivation for all of the time. One of these important factors is a concept called "consciousness" - something could feel differently to you simply because you became more aware of it. The thing is new or different now. This concept of consciousness applies to all emotional things, you can become more conscious of one thing or feeling, or more conscious of yourself as a person as a whole.

I would say that how someone is processing their emotions changes how time feels, - their perception of time. If you are more conscious of certain emotions or just more conscious in general it could make any activity more difficult because you have to work to attain that consciousness. This is similar to saying that you should do an activity that is hard when it is least hard for you to do it. There are going to be certain conditions when things are going to be easier - - then your perception of reality and time might be

Another way of describing consciousness is just how clear a feeling or something is to you. If a feeling is more clear, then you are more conscious of it. This is like understanding why you like some things more than others, some things you know better how much you like after you spend time

I guess the question then is how is someone supposed to know when something emotional is more clear to them. Your emotions could be making you feel a lot of things that you aren't aware of you are experiencing.

This is similar to having a hidden bias against someone or a group of people that you aren't aware of you have. I would say that you can observe these emotional phenomena through behavior, probably subtle behavior. That is similar to a painters strokes being influenced by their emotions. You can see how the painter is feeling by how they paint - their unconscious emotions are probably going to influence how they are feeling about the painting.

There are ways of interpreting cognitive information emotionally. Something can be imaginative, logical, happy, persuasive, or other ways in nature. For instance, something imaginative is going to make you feel differently from something that persuades you to do something by force. The 'imaginative' art or whatever it is is probably going to be much more pleasant than when your emotions and thoughts are forced or persuaded to think and feel a certain way. With imagination the thoughts seem more pleasant because your basically creating whatever it is you want to feel by imagining something. Even if you are imagining a nightmare the emotional process is still something you created and therefore subject to your personal bias (and people naturally want themselves to be happy). However, someone can easily repeat painful experiences to themselves, however that is different from imagination. With imagination you create the experience or magnify a real one. Magnifying a real experience emotionally is a part of what imagination is - maybe my point was just that

things you create yourself and are more imaginative and probably going to be more pleasant.

There are other factors that make unconscious operations more complicated. kfkkkkffkdldkflldlkfkfk

2.2 Decision Making, Memory and Emotion Regulation

Emotion regulation refers to the set of processes used in response to emotional experiences and how we express our reactions to emotions (Gross, 1999). - This means that decision making and memory are going to be used in the emotion regulation process. A humans decision making ability and his or her ability to use their memory is going to be affected by the emotional nature of their experiences. Also, someone's personality might influence those processes as well. Someone who is action-oriented or harm-avoidant is going to respond differently than someone who might be more lazy.

2.3 Unconscious Processing

How does the mind think? I said previously that it uses images to think, and that these are basic images like body-images or other symbols.

But how does that information reveal other significant facts about thought? If your mind uses images to think, then a human's perception of the visual world is going to influence their mental thought processes.

Or maybe you don't need a visual representation, if someone feels something around certain nature scenes, like a pond, you don't necessarily need to visualize the pond. Being near the pond is enough to evoke the emotions that scene brings up because the pond creates a certain atmosphere, it changes the humidity in the air, and the life around the pond is different. So perhaps vision doesn't create most of the strong emotions people experience anyway.

2.3.1 Is it Simple?

There is a way a human's mind prioritizes information. Certain objects in life represent different things and trigger different emotions for people.

People are also sensitive to different types of emotional information. For example there might be something difficult to understand emotionally that someone understands unconsciously because it is important or more obvious to their unconscious mind.

What types of information are understood unconsciously vs. consciously then? Clearly there is going to be a difference - I can think of many examples off the top of my head. There are simple things in life people do like knowing their schedule for a day, that could be considered to be emotionally simple, and there are more complex ideas emotionally that people consider during a day like how to handle a debate or argument.

Is there a type of 'emotional speculation' where someone guesses what something might feel like? You could say that people do this all the time when they make any type of emotional assessment (for instance how cool or uncool something is, or if they like or dislike someone). What is emotional subtlety then? It is defined by levels of conscious and unconscious importance, and degree of difficulty in understanding and absorbing the information.

2.3.2 What information is absorbed consciously vs. unconsciously?

That is a critical question because there are many different types of emotional information. Something can be more important emotionally if the person simply cares about it more, or they could have a better understanding of the information because they have experience in that field.

What would be 'emotionally complex' pieces of information then? If the information is complex is it easier to understand consciously or unconsciously? Dogs often understand beforehand when their owner is going to go on a vacation, or many other complex ideas about social interaction. Dogs also understand if a person is being nice or cruel to them - does that mean that a humans understanding of kindness is at the same level as that of a dog? There must be more complicated ways a human understands what 'kindness' or 'cruelty' means than the understanding a dog has.

Maybe information that is 'subjective' is information that is consciously speculated. Unconsciously you simply get a feel for things, but you can guess about a lot of things verbally - are those guesses instinctual, 'gut' guesses or are they measured assessments? Is anything subjective a measured assessment? Saying 'that coat looks nice on that person' is subjective - the person isn't doing an analysis of who likes the coat on the person and who else thinks it looks good. They think it looks good - they didn't do a study of what type of person thinks it looks good. The information is subjective, it was triggered by their own emotions and motivations.

2.3.3 Is Conscious Understanding Subjective or Objective?

When someone thinks something is funny, how accurate are they? How can someone measure how funny a movie or a joke is? Can you measure that by the amount of time spend laughing or the amount of 'smiling' the person does as a result of hearing the

joke? Conscious understanding of our own feelings is subjective. That information also means that all conscious understanding is subjective - when someone thinks they understand something, they are going to bias it in some way.

What if someone tries to be as objective as possible when making all of their decisions. Then possibly all decisions that are objective in the first place (non-emotional decisions) and not subjective might be fairly non-biased. But then what types of assessments are non-emotional and which types are emotional? Math isn't emotional - scientific fact isn't emotional. That isn't to say that there isn't a type of bias someone has when they do addition. Maybe they are thinking about something else at the same time and this biases possible interpretations of the objective data.

So it is clear that something objective is objective, and something subjective is subjective, however how could someone measure differences in how subjective something is?

2.3.4 What Classifies Material as Conscious vs. Unconscious?

Theoretically all the information someone absorbs is going to be consciously vs. unconsciously absorbed to different degrees. I would say that if the information is easier to remember then you are using your unconscious mind (like how songs are easy to remember). Songs are easy to remember because they are fun, a persons emotions are evoked and that helps increase mental processing of the song so they can recall it. The emotion 'fun' from the song (even if it is a sad song the fact that it is a song is positive) or just emotion from the song helps you to remember it.

Information that you don't need to think about that much consciously is unconscious information as well. If you think about it, if you have to do a lot consciously - like think of this and that in order to remember something or think or do something, then it is more conscious. If it is done more automatically then it is more unconscious.

I would say that all emotional information is more unconscious. Dreams are emotional because you are not conscious during them. That is why they don't make sense, because you are not thinking (lol). Does this mean that someone thinking a lot is going to be less emotional? That is hard to say because you can't really define when someone as thinking a lot or not. If someone is watching a movie, they are probably thinking less then when during a history exam.

So my theory is that knowing how emotional something is can help classify if it is intellectually intense or not. For example - which would use more thought, a math test or a history test? In history you use emotional information to help remember the facts. What happened in history is emotional and social. Math is logical, it is clear how to get the result if you understand how things work in a concrete, straightforward way. (I am not saying that calculus is straightforward, I am just saying that it makes sense why it works that way because math makes sense). History is a social subject, however, so ones understanding of emotion and human interaction is going to influence your ability to do well in that field.

So which subject uses more unconscious processes? History or math? I would say that history does since it is emotional, and math doesn't necessarily engage any emotions. I mean, you are just doing numbers, it could cause someone to become emotional if it brings up something indirectly, but that would not relate directly to the math problem like how historical fact relates to social interaction.

2.3.5 Emotional Material is Unconscious and Factual Thinking is Conscious

So therefore emotional material is unconscious and factual thinking is conscious. This is so because when you think about something you are thinking consciously, and that is a single point of information that you think as a 'thought'. If it is emotional or important it is unconscious because you can't think about your emotions, when emotions occur, they are physical processes that cause feeling. Thoughts can cause feeling, but only because they trigger emotions. So math is very logical, you can have a lot of thoughts about it but none of those thoughts necessarily have to trigger emotions because they aren't directly related. Historical fact is social, so it is probably going to be more emotional because it is more directly related to social interaction.

So a process like memory retrieval can be unconscious. When you are helped by your mind to remember a song, that is unconscious memory retrieval. When you try to remember something, that is more conscious. What is the line between unconscious and conscious then? Historical fact relates to a lot of things in your unconscious mind. If it relates to a lot of unconscious things, like emotional things or other things in your life you don't think about immediately, then it is more of an unconscious process. If it relates to things you easily remember then it is more of a conscious process.

2.4 Representation in the Mind

Since different objects represent different things to different people, and there are different types of emotional speculation (like deliberative decisions vs. instinctual ones), and various degrees of cognitive load (how intellectual or how emotional something is) then it isn't clear to me how these would function in the mind - which images, objects or experiences in life would do what to someone emotionally and intellectually?

2.5 Points made in this essay

- Mental images are possibly more simple in the mind than the full experience of them in reality. They are sometimes dulled down and made less intellectually

intense like how dreams are more simple (and there are often simple images in them) than real life experiences.

- There are obvious and less obvious life factors that influence your emotions. This relates to having to do work to attain consciousness of something. If something is obvious or more significant, it is probably going to be more accessible to consciousness (how 'clear' something is).
- Someones memory and decision making ability is going to be influenced by their emotional reactions and their personality type.
- A persons perception of the visual world is going to influence those mental processes (decision making and memory) because vision is a large factor in how emotion is generated, though not necessarily that significant.
- People are sensitive to different types of emotional information and absorb some things better consciously vs. unconsciously. Some things are also more or less emotionally complex, in addition to being unconscious or conscious.
- Unconsciously people can get a feel for things - that is what the unconscious is - more automatic - you could have a more conscious feeling for something but it is easier to respond instinctively. This relates to understanding information consciously or unconsciously, if feelings are involved it could be considered to be an unconscious understanding, like how dogs understand if someone is being nice. If it is conscious then you aren't necessarily correct, you are using intellect to guess at something. You could be using your unconscious feelings as well, however.
- Information that is emotional (such as historical fact) isn't necessarily conscious thinking. One can think objectively about emotional information, and therefore it would be non-emotional to them. However, it makes sense that someone would use emotional information to help remember historical fact, since history is related to life and social interaction information (which are both emotional phenomena).

2.6 A Related Article

Chris Fields (2010) wrote an article explaining about 'hyper-systemizers' - "Hyper-systemizers are individuals displaying an unusually strong bias toward systemizing, i.e. toward explaining events and solving problems by appeal to mechanisms that do not involve intentions or agency.". And how they are different from their opposites 'mentalizers'. That relates to this article because I described how some information is more emotional than other information. It seems that some people process more emotional information, and other people process information more subjectively or are just less sensitive to emotional cues:

- Scientists, technologists, engineers and mathematicians rely heavily on a problem-solving and explanatory strategy or orientation, termed “systemizing” by Baron-Cohen (2002, 2008), that is characterized by appeals to natural laws, physical mechanisms, algorithms, formal inference rules, or other concepts of causation that do not involve autonomous agency or intentions. Systemizing or

> “mechanizing” (Crespi and Badcock, 2008) solutions and explanations are explicitly distinguished from “empathizing” or “mentalizing” solutions and explanations, which do appeal to intentional, 2 autonomous agency and to actions guided by beliefs, desires, goals, fears, worries and other “folk psychological” attributes associated with agency by a theory of mind (ToM) system (Frith and Frith, 1999; 2003).

Fields describes the proposition of his paper:

- Based on a review and synthesis of relevant literatures, the present paper proposes that pre- existing personality and cognitive demands interact to progressively sensitize the attentional and motivational systems of some individuals toward systemizing and away from mentalizing, resulting in hyper-systemizers who are not deficit in mentalizing capability, but rather relatively insensitive to cues that ordinarily induce mentalizing.

So some people are more driven by emotional processes - and their thoughts are influenced by emotion - but with other people this is less the case. I mean if your actions are being guided by beliefs, fears, goals, worries, etc. then it would seem to me that the person would be more emotional. That isn't necessarily the case, however. Someone could have their thoughts be driven by those things, but not be an emotional person. Would that person be thinking with more unconscious emotional processes, but not actually be more emotional? Emotion can be present in thought and used to assist thought, but might not actually make the person more emotional than someone whose thinking is more objective. Maybe they are emotional for a different reason.

2.7 Theory of mind

Theoryofmind(often abbreviated "ToM") is the ability to attribute mental states—beliefs, intents, desires, pretending, knowledge, etc.—to oneself and others and to understand that others have beliefs, desires, and intentions that are different from one's own. (Premack, D. G.; Woodruff, G. (1978)).

In my view, ToM relates significantly to how emotional people and their thoughts are. If someone's actions are being guided by beliefs and desires (a 'mentalizer'), then it makes sense that their understanding and assessments of other people and themselves are going to be influenced by beliefs and desires. If someone has greater desires when making assessments (so the emotion would be related to their thoughts) would they be a more emotional person? Someone might be capable of thinking non-emotionally, even if they have greater desires and beliefs, though I would think that in general someone with more emotional thoughts would be a more emotional person. It probably depends what they are more emotional about, etc.

2.8 Consciousness?

A theory of consciousness is outlined by (De Luca, A Tony and Stephens, Newman L (2010)) - this is what they postulate - "To understand consciousness we have to understand the mechanism of its function, which is to effectively organize sensory inputs from our environment. Consciousness is the outcome of the process of organizing these sensory inputs. This implies that organization is an act which precedes consciousness:

- My hypothesis is that consciousness is the emergent outcome of several linked processes (outcomes for sensory systems) which are organized to form specific neuronal architectures. The most elemental of these processes is the electrochemical input to the brain cells which originated as external stimuli on specific receptors that in turn generate electrophysiological phenomena such as action potentials to occur in specific areas of the nerves system. These ascend to multiply loci in different parts of the brain. According to some investigators, i.e. Crick and Koch, it is the synchronization of these actions that results in consciousness. Crick termed this the “Astonish Hypothesis” In this book and subsequent articles awareness and perception were used interchangeably with consciousness. However, my hypothesis states that perception is different physiological construct from that of awareness and are elements of the subconscience and consciousness is the process of organizing awareness; its manifestation is the emergence outcome from this process.

In my view, it makes sense that perception is different from awareness. Perception is fast because vision is fast. Vision seems to me to obviously be linked to different cognitions than awareness. To figure out how awareness and perception are different, however, we first need to figure out what 'awareness' is (though I would think that an advanced cognitive process is slower than a fast visual process, as it takes a long time to think complex thoughts). When someone is aware of their environment, is that awareness emotional? A deer or other animal doesn't necessarily need to engage emotionally with other species in order to be aware of its environment. Even frogs posses basic emotional processes (I noticed a from responding emotionally - when you go near it you could possibly try to be nice and not scare it away). What is awareness then? Is it just awareness of ones environment, or awareness of the social cues needed to interact with other species? This is in the abstract of the paper by Deluca and Stephens:

- Consciousness is “something” which the majority of humans know that they posses, they use it when they want to understand their environment. However, no individual human knows whether other humans also posses consciousness. unless some tests such as she is looking at me, he is talking etc., are performed. We are caught in an intellectual sort of recursive carousel – we need consciousness to understand consciousness.

So awareness is complex - you have to be aware of other people, what they are doing, what is going on in your environment. Vision, however, is simple. First people need to see their environment in order to reach conclusions about it (or whatever the equivalent that is that a blind person would do). If someone stops thinking, they could still be able to see. I am just saying it seems to me that vision is a more simple process than advanced awareness. First you see your environment, then you think about it. I would guess that when you aren't thinking, you are still looking around and responding to more simple cognitions that enable you to behave normally. Advanced emotional and intellectual thinking is probably slower than simple thinking and vision.

So no wonder Crick and Koch used the words sensation and perception interchangeably, when someone fist is able to see their environment, when they wake up or whatever, it is as if that is when they are first aware. (Vision being the 'baseline' cognition). This relates to emotional and intellectual complexity, some things are simply more advanced than others to think about. When a baby is born can it think? It can see, and it understands how to interact, but then again, a frog also knows how to interact and I notice they can respond emotionally.

2.9 Consciousness in the brain

Wallace, Dr. Rodrick (2011) sums up an argument by Atlan and Cohen (1998) about how information systems work in the mind:

- Atlan and Cohen (1998) argue, in the context of a cognitive paradigm for the immune system, that the essence of cognitive function involves comparison of a perceived signal with an internal, learned or inherited picture of the world, and then, upon that comparison, choice of one response from a much larger repertoire of possible responses. That is, cognitive pattern recognition-and- response proceeds by an algorithmic combination of an incoming external sensory sig- nal with an internal ongoing activity { incorporating the internalized picture of the world { and triggering an appropriate action based on a decision that the pattern of sensory activity requires a response.

When someone sees something does it 'require a response'? Seeing another human being might require a response, but what about biological or neural responses? What objects trigger which responses? Are there sets of 'brain wirings' that sort out different activities? Here Wallace cites a model - (Baars, 2005):

- ...it is clear that different challenges facing a conscious entity must be met be diferent arrangements of basic cognitive faculties. It is now possible to make a very abstract picture of the brain, not based on its anatomy, but rather on the linkages between the information sources dual to the basic physiological and learned unconscious cognitive modules (UCM) that form Baars' global workspace/ global broadcast. That is, the remapped brain network is reexpressed in terms of the information sources dual to the UCM. Given two distinct problems classes (e.g., playing tennis vs. interacting with a significant other), there must be two different `wirings' of the information sources dual to the physiological UCM,

It is fairly obvious that there are different ways of responding to the world - social, emotional, intellectual, etc. - but the important question is: what are the similar ways in which different aspects of the world cause similar or different feelings? That way you could say - this is that are grouped in the mind because they have the same feeling (physical) response. Or is there "no room in any model for feeling" (Harnad, Stevan (2011))? I could use a emotional / intellectual division of world responses. While intellectually thoughts may cause feeling, it makes more sense that the mind is divided into emotional groupings not intellectual ones. That is because thoughts trigger feelings - a feeling can cause someone to have a thought, but that is only because you realized you had that feeling or it motivated you in certain way (while thoughts cause feelings directly). So it isn't someone's knowledge that causes feelings, I think the mind works by a more simple division of the world and biological responses - simple emotional groupings. That makes sense since humans evolved from lesser animals where that is more obvious. When an ape interacts with his friends, the emotion he feels is a simple one that derived from simple aspects of the world and the interaction he in engaged in. So while simple feelings might be the logical result of their corresponding thoughts, deeper emotional aspects of the mind are probably simple responses to the persons environment i.e., you went to a movie so you feel happy, etc. So my theory is basically only a few emotions are the end result of all our activities, and from these basic emotions more complex intellectual responses can be formed. Harnad, Stevan (2011) seems to feel that humans have little room for feeling in their intellectual responses:

- And perhaps it is indeed not worth fretting about the fact that, at the end of the day, the successful total explanation of our know-how will always be equally compatible with the presence or the absence of feeling. For unless we are prepared to be telekinetic dualists, according a separate, unique causal power to feeling itself (“mind over matter”) -- for which there is no evidence, only overwhelming evidence against it – there is no causal room in any model for feeling. Yet, although it may be an illusion that some of the things I do, I do because I feel like it, it is certainly not an illusion that it feels like some of the things I do, I do because I feel like it. And that feeling is as real as the feeling that I have a toothache even when I don’t have a tooth.

2.10 My Theory

Paul Ekman did a study that found that when participants contorted their facial muscles into distinct facial expressions (e.g. disgust), they reported subjective and physiological experiences that matched the distinct facial expressions. His research findings led him to classify six emotions as basic: anger, disgust, fear, happiness, sadness and surprise. [1]

So there is a physiological correlate for each of the 6 basic emotions - my theory is that from different stimuli, different intellectual cognitions (such as thoughts, dreams etc.), and one or more of those 6 basic emotions (or possibly other feelings)

1. Handel, Steven. "Classification of Emotions". Retrieved 30 April 2012.

consciousness arises. It doesn't necessarily have to be right away, it could take hours for neural centers to respond (in that way more complex emotional responses can be formed since they are possibly a build up of a few hours of mental experience).

This way, from a simple emotionally triggered response (not just emotional, but also intellectual stimuli and external stimuli) in the brain complex feelings arise. The answer must be that different chemicals are stored up over time. In that way only a few basic emotions could give rise to a rich conscious emotional and intellectual experience. Emotions trigger thoughts, thoughts are triggered from external stimuli (in any order thoughts, emotions and external stimuli can trigger each other) (which was triggered by such and such stimulus) could trigger this and that feeling over the next few hours.

Humans must develop a way of organizing the three inputs of emotion, external stimuli, and thought (the intellectual input) over time, and the way their mind organizes the data forms their 'consciousness'. - For instance, if you respond to seeing this object this way emotionally and intellectually - then that was how your mind organized your emotional/intellectual response. It is subjective to decide whether or not you were 'aware' of your response - humans respond to things all the time and they aren't necessarily aware of those responses.

So someone emotions could be sending signals to the part of the brain or body that registers those feelings. Your mind (thoughts, etc. - the intellectual part of your brain) could also be sending similar or different signals about emotion (i.e. 'I want to be happy' or 'I don't want to be angry'). As a third input, the person could be getting signals from their external environment telling their emotions to be happy, sad, etc.

2.10.1 How can Intellect in the brain be categorized?

It is more clear how emotion works in the brain than intellect - the different 'main' emotions are obvious mentally and physically. However, how does a humans mind work intellectually? There must be certain types of attributes it associates with itself, and some of these are going to be more intellectually 'stimulating' to your mind than other attributes. This might also be true of other animals with less intellectual functioning than a human, however it is probably very different.

Just like how different types of sensory information can be stimulating to someone, different types of intellectual information are probably also stimulating to various degrees. School can be academically (or intellectually) rigorous, but what pieces of information from academic material are more rigorous?

The same information probably is just as rigorous outside of a school environment. Can I separate out information that is accompanied or 'forced' into someone by other emotional stress like if someone was under pressure at school to do well, or under pressure to figure out a solution otherwise?

Different types of information must be associated with different emotional architectures - i.e., when I think about this I feel this way. Some types of information

are going to be more or less emotional or related to your personal identity. That is different from if the information uses more unconscious emotional processes. Information could use emotion to help to think about it (like my historical fact example), or the information could be emotional to the person or not as well.

2.11 Subjectivity and Emotion

(Vaknin, Sam) Proposes that emotions are either sensory or internal:

- Actions are sense data and motivations are internal data, which together form a new chunk of emotional data.
- If more sense data (than internal data) are involved and the component of internal data is weak in comparison (it is never absent) – we are likely to experience Transitive Emotions. The latter are emotions, which involve observation and revolve around objects. In short: these are "out-going" emotions, that motivate us to act to change our environment.
- Yet, if the emotional cycle is set in motion by Emotional Data, which are composed mainly of internal, spontaneously generated data – we will end up with Reflexive Emotions. These are emotions that involve reflection and revolve around the self (for instance, autoerotic emotions). It is here that the source of psychopathologies should be sought: in this imbalance between external, objective, sense data and the echoes of our mind.

So obviously emotions are going to be generated by either one or both inputs - internal and external. If you feel like (or are) responding to your internal motivations and feelings, then you are responding more internally. If someones environment is putting pressure on them (people in the environment, or other sensory inputs), then they would by definition be responding more externally.

What makes an emotion subjective? People feel emotions all the time, its just how they are - "Thats just how I feel" someone might try to communicate. It is too hard to assess where the emotion came from, if it was a logical one that made sense or an emotion that was subjective. What would an example of a 'subjective' emotion be vs. a 'logical' emotion?

An emotion that is strongly influenced by a motivation or desire is probably subjective. An emotion that is sensory, like a physical emotion, is more objective because you aren't influencing the emotion with your mind. People respond differently to different situations because they are different people and have different background beliefs, ideas, feelings, experience, etc.

I suppose you could say that some people respond to social situations more 'logically' than other people. If they aren't as influenced by their internal beliefs - earlier in this paper I cited the definition of 'mentalizers' - people who have their actions guided by beliefs, desires, goals, fears, etc. vs. 'systemizers', who rely on a problem solving strategy instead of intentions - then does that mean they are responding more logically? Someones emotions could be influenced by logical data just as much as

someones emotions could be influenced by internal intentions (though I would guess in general the mentalizers are more emotional).

Do emotions arise from a persons problem solving strategy? One that is logical (systemizers) or one that is based on internal motivations (mentzlizers)? If that were the case, then systemizers would be distinctinly different emotionally than mentalizers. Or do emotions arise from perceiving external actions differently? Perceiving actions would be learned from experience, while someones problem solving strategy is based upon what they are thinking about. - So emotions could arise from perceptions of bodily changes (which is Damasio's theory) which I suppose could be observing other people in your environment, or they arise from a more internal, mental process which is based upon what you are thinking about, how you are thinking, etc. (systemizers vs mentalizers for example).

2.12 Observation vs. Inference

When someone observes their environment they think about it in some way. This type of thinking is different from thinking that isn't based off of immediate vision. How do the two types of thinking differ? What is different when you think from when you are observing your environment, versus when you think about things that aren't dependent on what you are looking at (a more 'inferential' type of thinking)? Fodor (Fodor, Jerry (1990)) states - "For one thing, observationally fixed beliefs tend, by and large, to be more reliable than inferrentially fixed beliefs."

Based upon the same visual observations, will two organisms reach the same conclusions? Why don't I try to compare a deer and a human. There is a similar way in which both species process basic information about the environment (along with the animals in it), for instance if someone is attacking them both species recognize that as a threat. And i'm sure both species process data about environments without other animals or humans in it in a similar fashion as well. They both need to function in the environment, to look at the flora and fauna and decide what they want to eat, etc. It must be more complicated or 'theoretical' ideas that humans hold which separate our thinking from that of other animals (like deer). Here Fodor states that two organisms will reach the same observational beliefs 'however much their theoretical commitments may differ':

- The claim, then, is that there is a class of beliefs that are typically fixed by sensory/perceptual processes, and that the fixation of beliefs in this class is, in a sense that wants spelling out, importantly theory neutral. A a first shot at what the theory neutrality of observation comes to: given the same stimulations, two organisms with the same sensory/perceptual psychology will quite generally observe the same things, and hence arrive at the same observational beliefs, *however much their theoretical commitments may differ.*

Is there a difference between perception and cognition? How someone perceives the world is based off of - and influenced by - how they think of the world. Perception is the organization, identification and interpretation of sensory information in order to

represent and understand the environment [2]. Cognition is how our minds use sensory data, in addition for being a name for all of a humans intellectual faculties - language, learning, reasoning, problem solving, and decision making. So what is the exact relationship between perception and cognition? Here again is Fodor:

- Precisely parallel to the philosophical doctrine that there can be no principled distinction between *observation*and *inference*is the psychological doctrine that there can be no principled distinction between *perception*and *cognition*. The leading idea here is that "perception involves a kind of problem solving--a kind of intelligence (Gregory 1970). Perception, according to this account, is the process wherein an organism assigns probable distal causes to the proximal stimulations it encounters. What makes the solution of perceptual problems other than mere routine is the fact that, as a matter of principle, any given pattern of proximal stimulation is compatible with a great variety of distal causes; there are, if you like, many possible worlds that would project a given pattern of excitation on the sensory mechanisms of an organism. To view the mental processes which mediate perception as inferences is thus necessarily to view them as *nondemonstrative*inferences. "We are forced ... to suppose that perception involves betting on the most probable interpretation of sensory data, in terms of world objects" (Gregory 1970). It is worth stressing the putative moral: what mediates perception is an inference from effects to causes. The sort of mentation required for perception is thus not different in kind - though no doubt it differs a lot in conscious accessibility - from what goes on in Sherlock Holmes' head when he infers the identity of the criminal from a stray cigar band and a hair or two. If what Holmes does deserves to be called cognition, perception deserved to be called cognition too, or so, at least, some psychologists like to say.

So observation is similar to perception, and inference is similar to cognition. When someone interprets or infers information, they are thinking - and when someone observes the world around them they could likewise be viewed as just seeing (or 'perceiving').

Which visual objects generate which cognitions? Or, which visual environments generate which types of cognitions? My guess would be there are visual environments that put a high cognitive demand on someone, or alerts them to a higher degree than less threatening or stimulating environments. It is interesting that vision plays such a large role in what a human or other animal might be thinking. For instance, a forest environment might make a human feel like it was under threat, or at least more so than a grassy environment where the human could see far around itself.

From the Fodor quote I concluded that it seems like the observations and conclusions reached from perception or vision are simple ones. Investigation into what is going on visually is just linking the vision of a scene (like a crime scene in the Holmes example) and with the knowledge you need to make the proper links. An understanding of of deep human emotional factors isn't necessary. However, a complex understanding of human motivation might be needed to understand complex ideas. Complex ideas might be linked to vision, however most things that people just see visually they don't need a complex emotional background to understand. There are many 'worlds' that

2. Daniel (2011). Psychology.Worth Publishers

each visual environment might represent. Those are also simple, however. In the visual field there are simple things like effects and causes (this causes that, etc). To understand the environment, much of the information of what is happening doesn't have to pass through consciousness since it is usually fairly simple. A deeper reflection, esp. a deeper emotional reflection is capable with complex thought, probably at a separate time from when one reaches the immediate conclusions they do about the environment.

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Chapter 3 Emotion and Reason - How We Decide

People decide what to do depending on the options they have and the information they are presented with. Someones feelings may be guiding them person or leading them to think a certain thing - and that person could be completely unaware that their mind is doing that.

John Heil maintains that conscious thinking need not be linguistic but is imagistic or 'pictorial'.

Take the two ideas that people are subject to emotion and that conscious thinking is pictorial and I arrive at the conclusion that that is why people like going to movie theaters. The images there are large and that helps make it a different experience - the movie overrides their thinking with images and sounds. That is the difference between going to the theater and just watching the movie on your home television anyway.

'Understanding'

John Campbell maintains that the ability to know the reference of our singular and general terms is based, ultimately, on our ability to focus our conscious attention on objects and properties.

I think that that isn't saying much, however (or that it is rather obvious). I mean that is sort of by definition how people gain experience or understanding - by having a better or more developed understanding of the objects involved with whatever the knowledge is of.

I don't know if this means that understanding is visual or verbal - it is probably a combination of both and varies depending on what the understanding is of. Understanding is also emotional - conscious and unconscious emotions, visions and words all assist the understanding of ideas and objects.

'Deciding'

People make decisions based on two factors - what they want and what they are most likely to actually get (or is actually going to happen).

So if someone wants something a lot, and it is very likely that they can get it; then it is a very easy decision.

Different emotional properties might interfere with a logical decision making process. If someone is very aroused they might not be able to reach logical decisions - it might help with the speed of the decision - but not necessarily its accuracy.

'Truth'

What is the 'truth'? It might be the truth to find out what someone wants the most - that is one thing that someone could be true or accurate about. Or finding out someones motivation behind a behavior - 'person a did this because they were motivated by factor x and y' - could be something else someone might try to be accurate about.

So human motivation is a subjective topic that is very important in understanding ordinary, daily events. It therefore is probably important behind a lot of the thinking people do. If you think about when you think about anything, or even the stream of someones thoughts is going to be influenced by current motivations and drives.

What else might make thinking emotional? Motivation obviously generates emotion, but motivations are cognitively triggered more so than emotions that simply lie in your body - such as moods and background feelings (background feelings were described by Damasio as the feelings people have when they wouldn't be feeling anything else). Those feelings are going to be less tied to motivation because they aren't as connected to goals.

Feeling and motivations are also going to be tied to emotional biases (heuristics) and thinking biases (schema). Basically humans can be biased from more emotional drives or drives that are more related to goals and certain thoughts they may have.

3.1 Is Thinking Automatic?

How much of thought or feeling is consciously derived vs. derived from a persons environment? Humans don't 'create' the world around them - the world around them gives inputs for their minds (not the opposite).

Depending on the input (or the situation) a human mind could interpret the inputs in different ways. They could cause the person to feel emotions that they didn't expect to feel or that they didn't ask for. Their mind also biases the information that it thinks. It seems like the mind could structure new ways of thinking about things and how the feelings are generated when thinking about those things by practicing new ways of thinking.

Old habits die hard; however. When thinking about things feelings are automatically triggered - and these feelings have real sources in the world (which is perhaps why it is hard to change how they make you feel).

It probably depends if the thinking is context independent or context dependent - for instance if you are thinking in a different environment or have different emotions when you do the thinking. The context I am talking about here must be more complicated than 'background' feelings because the content is highly informational. There are a only a few background feelings someone could experience however there are many more ways of feeling in your mind if you combine the feelings with thoughts or specific situations.

3.1.1 Unchangeable Feelings

A person could practice going into a situation repeatedly - then the experience for them would gradually become more understood and the feelings generated more automatic. But how could their mind influence what feelings are felt? Maybe if they focused on different aspects of the situation or thought about different aspects differently they could change the feelings involved.

So feelings aren't entirely based on the environment or external stimuli - what the person thinks or who they are probably influences the feelings to a great degree.

How does that work exactly; however? It probably depends on what the situation is and what the inputs and thoughts are. Also, what aspects are unchangeable from situation to situation - or how does the mind construct feeling and thought from an environment?

3.1.2 Engaging Stimuli

The human mind responds to stimuli - it is for that reason that zombies aren't possible because zombies don't respond highly to stimuli - however that is how the human mind functions, by responding, recognizing and adapting to stimuli.

Stimuli from thoughts, emotions and the environment all help keep the mind active and alive. That doesn't necessarily mean that a person needs strong motivations all of the time, however. In order for the brain to function a complex set of inter-actions needs to be occurring. Emotions, thoughts and stimuli must be continuously triggering complex feelings that form a sort of 'feeling base' for the unconscious.

That is different from Damasio's 'background feelings' which could be viewed as just being simple feelings. The feeling the unconscious mind generates is complex and constantly dependent on stimuli and also (necessarily) constantly feeds the mind with its own stimuli.

3.2 Implicit Knowledge

Some knowledge that people have is unreportable - that is, they know or have the knowledge but are unable to report it verbally.

Sometimes there is a mismatch between conscious understanding and unconscious understanding. That has to do with mental representation - which is how an object is represented in a persons mind. There is going to be a partial or complete match

between what the object is, how it is understood consciously and how it is understood unconsciously.

Someone can 'represent' an object to themself by thinking about it. How much they understand is going to vary depending on the object and how much they think about it. Their unconscious and conscious understanding of course is going to influence decisions made related to the object. Unconscious and conscious understanding also would help form how the feelings are related to the object and how decisions are formed related to the object.

How do thoughts and emotions work to trigger a mental experience? They must combine in some sort of 'cognitive architecture' or brain wiring. The total workings of the different processes the human brain brain uses is termed in cognitive science a 'cognitive architecture' (Thagard, Paul):

- A cognitive architecture is a general proposal about the representations and processes that produce intelligent thought.
- A cognitive architecture is a proposal about the kinds of mental representations and computational procedure that constitute a mechanism for explaining a broad range of kinds of thinking.
- A complete unified general theory of cognition would provide mechanisms for explaining the workins of perception, attention, memory, problem solving, reasoning, learning, decision making, motor control, language, emotion and consciousness.

Thinking seems fairly simple; however. Everyone thinks, and humans didn't need to study what thought was in order to understand how to think - so it couldn't be that complicated. Thoughts influence our view of the world, however (and therefore help shape our reasoning and decision making). - Here is (Prinz, Jesse):

- Thoughts are mental episodes that require the use of concepts. Thoughts may be unbidden or automatic, but they are not merely copies of the stimuli that impinge on our senses. They go beyond mere sensations and present the world as being a certain way. Thoughts can occur through processes of deliberation and can be affected, in many cases at least, by reasoning.

Thoughts can cause emotions. Typical thoughts that might cause emotions are appraisals and evaluations. If someone has a strong attitude about a thought it will probably generate more emotion than a thought that is more neutral. Thoughts are cognitive; however. Non-cognitive causes of emotion are primarily perceptual states like a smell causing disgust or a sudden change in vision (since perceptual is by definition what we 'perceive'). The non-cognitive correlates of emotion is theorized to be physiological arousal (like taking drugs or listening to music for example (other examples are weather and exercise)) (however some theories attach a cognitive component to the physiological aspect (Spinoza for example says every emotion comprises both a judgment and either pleasure or pain)).

So a lot of things cause and affect emotions in the brain. It is important to understand these causes (especially thoughts - since those are most under your control) if someone is to understand how your emotions influence your decisions and how your decisions influence your emotions. - (Prinz, Jesse):

- In sum, we have seen that there are several possible candidates for the constituents of emotions: cognitive states, such as appraisals, levels of arousal, emotional valence, perceptions of bodily change, action tendencies, or some combination of these.

3.3 Consciousness

Consciousness is hard to define - it arises from perception of the stimuli generated from an environment, the stimuli generated from our senses and the stimuli generated from our thoughts and feelings.

But what is the 'perception' of our own internal states and feelings? That would be a higher-order theory of consciousness. Higher order theories state that one is only conscious of a state when one reflects on that state. So if someone was constantly more reflective, then they could be considered to be more conscious in general.

Consciousness is obviously highly related to how people make decisions then. - If someone is conscious of a certain thing, or how they are conscious of that thing is going to determine how it feels for them and how they are going to make decisions from that conscious awareness.

3.3.1 Perceptual vs. Action Consciousness

Perceptual consciousness suggests that consciousness arises from our perceptions - this would include things like imagination and vision. Action consciousness suggests that consciousness arises from awareness of bodily actions - and thoughts can fall under that species of consciousness - or are our thoughts perceptions?

Two chapters on that debate are in the book "Contemporary Debates in Philosophy of Mind" Mclaughlin, B and Cohen, J (Eds). Blackwell Publishing, 2007. One chapter is by Jesse Prinz - "All consciousness is perceptual" and the other chapter is by Christopher Peacocke "Mental Action and Self Awareness".

Peacocke writes about action-awareness with schizophrenics:

- What the schizophrenic subject lacks in the area of conscious thought is action-awareness of the thoughts that occur to him. To enjoy action-awareness of a particular event of thinking is to be aware non-perceptually of that thinking as something one is doing oneself.

Peacocke postulates an idea about intentions:

- Is a thinker's knowledge of what he is doing really explained by his knowledge of his intentions in acting?

Prinz mentions that "there are conscious feelings associated with action". He talks about if Peacocke's view that action-awareness is different from perceptual awareness, and he talks about what Peacocke means by 'action'.

I would say that the debate is just a matter of defining the terms. The debate cannot really be solved empirically either. It is subjective to decide if something is a perception or is an action. I would say that there is a type of physical awareness of ones body and a type of mental awareness - awareness of ones own thoughts and emotions.

So that is it - there is the physical world and there is a mental world, and awareness or consciousness of both I would say is almost equally divided. That makes sense if you consider that if the physical overwhelmed the mental, physical feelings would dominate and vice versa.

People with left brain damage might have their emotions dominate (since the right brain is theorized to be more emotional). And similarly, emotional and intellectual; physical and mental are constantly in or out of balance.

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Chapter 4 The Nature of Consciousness - Perceptual, Representational or First Order - or are People as Confused as their Definitions of Conscious States?

There are many different definitions and words describing consciousness and conscious states such as phenomenological consciousness (which is basically the experience of conscious objects or states). There are other terms that define consciousness as being merely first order or not representational or higher order and only being representational. By 'representational' I mean that an object or experience is only conscious when someone has a higher order perception, thought or representation about it in ones mind.

Maybe consciousness isn't really like anything anyway. If you think about it - if it can be argued that lesser animals like dogs and cats can be conscious - then what makes a human a human isn't really that big of a deal.

Lesser animals think and feel. They don't have a large vocabulary, but I might postulate that they feel colors and objects in a similar fashion as humans do. What makes a humans capacity for thought such a greater achievement?

4.1 Explaining Consciousness

Materialism suggests that consciousness is the result of material interactions - which is obviously true, however there is a quality of consciousness that is surreal and could be described as being above the material.

I mean, people know what it is like to experience events. Certain things might be done to make the emotions involved more or less salient however, and that could be complex to achieve.

There is a difference between the real world and how ones mind represents the world to itself. This concept is called intentionality (not to be confused with the word 'intention') which is like the word intention, only so far as it implies that a mind has an intent to capture the essence of something in the world. It is defined by the Stanford

Encyclopedia of Philosophy as "the power of minds to be about, to represent, or to stand for, things, properties and states of affairs" [1] .

The question that then follows after hearing the definition of intentionality is - what if someone misrepresents the world? That doesn't really make much sense; however. The way your mind 'biases' or 'represents' the world is by definition how you are perceiving it. Over time you can perceive the world differently, and then it could cause different emotions in you. Because the color red doesn't necessarily have a strict bio-neurological reaction, it is dependent on your emotional and intellectual perception of the world.

What are the factors of perception, then, of perception and representation in conscious experience - and can someone 'misrepresent' the world? Here is Robert Brandom:

- For what an organism is doing to be intelligible is representing, there must be room also for misrepresenting, for representation that is incorrect. One of the hallmarks of the normativity of intentionality is that what one commits oneself to in applying a concept outruns in principle what one takes oneself to be committed to. The norm of correctness one thereby binds oneself by goes beyond both the dispositions of those understaking those commitments and what they consciously envisage themselves as committing themselves to thereby. Because it does, a question arises about how to understand the features of the intentional state or meaningful utterance that settle which determinate conceptual norm one is bound by - exactly which standards for the assessment of correctness or success one has implicitly put in play - by being in that state or producing that utterance. If what one is committed to is not settled by what one consciously envisages (because one never so envisages enough), nor by what one is disposed to accept as such (because one can be wrong), how is it settled?

He brings up a couple of points in this passage. If someone is misrepresenting the world, how would that change what the feelings are vs if they represented it accurately? What does that mean anyway - to misrepresent the world? It isn't like people can expect how exactly something is going to or supposed to feel, or understand completely how something feels. It seems there is a conscious filter of sorts that is conscious in the sense that it is unique to humans because humans have such a developed sense of emotion and breadth of feeling, but is unconscious in the sense that it is how their mind naturally functions (how it interprets and feels emotions, thoughts, experiences etc).

4.1.1 Phenomenal or 'Experience" Consciousness vs Functional Consciousness

What if someone only had phenomenological experiences without consciousness? Ned Block distinguishes between what he calls 'access' consciousness and

1. http://seop.illc.uva.nl/entries/intentionality/ Retrieved 12/16/2014.

'phenomenal' consciousness. He states that A- consciousness is representational and has direct control of thought and action (A-consciousness is the functional aspect of mind while P-consciousness is the experiential aspect). If A=P then information processing theories are right and the mind can be made that way. If, however, a humans realizations matter then there is a more subjective element and experience cannot be described or programmed. Something with only A-consciousness would be a zombie or robot - since it would be functioning like a human but it would have no experience or sensation of experiences.

That makes sense, if someone only had feelings and had no rationality (similar to an animal) then it would only be phenomenally aware. If someone had direct control over their consciousness, and didn't experience things very much then it would be easy to create a machine that duplicated that behavior since machines don't feel. Searle, 1990 mentions Blocks theory of access consciousness and criticizes it for confusing levels of attention and consciousness:

- There are lots of different degrees of consciousness, but door-knobs, bits of chalk, and shingles are not conscious at all... These points, it seems to me, are misunderstood by Block. He refers to what he calls an "access sense of consciousness." On my account there is no such sense. I believe that he .. [confuses] what I would call peripheral consciousness or inattentiveness with total unconsciousness. It is time, for example, that when I am driving my car "on automatic pilot" I am not paying much attention to the details of the road and the traffic. But it is simply not true that I am totally unconscious of these phenomena. If I were, there would be a car crash. We need therefore to make a distinction between the center of my attention, the focus of my consciousness on the one hand, and the periphery on the other ... There are lots of phenomena right now of which I am peripherally conscious, for example the feel of the shirt on my neck, the touch of the computer keys at my finger-tips, and so on. But as I use the notion, none of these is unconscious in the sense in which the secretion of enzymes in my stomach in unconscious.

It makes sense that there are lots of degrees of consciousness - that is fairly obvious actually. What makes it more complicated is to find out what exactly is going on - i.e. how emotionally focused are you on one thing, how much of the focus is intellectual, how much of it is planned or intended vs automatic.

I mean if you are unconsciously focused on something then is it more emotional since the unconscious is more animal-like? How much does it matter if it easy to process or is high in information? Those concepts relate to system 1 and system 2 dual process theories and how those theories relate to consciousness vs. unconsciousness (which I talk about in another article **m51859** (http://cnx.org/content/m51859/latest/)).

The unconscious mind gives largely the experience or feeling of life because when you think you can only focus on a little compared to how much you can focus on unconsciously - of course you can't really 'focus' on something unconsciously because by definition it is unconscious - so you could be doing more automated activities related to it but not really focus on it clearly like when you consciously focus on something.

So in my view theories of consciousness can be described by how conscious or unconscious various aspects of them are. This includes functions of the mind and how the mind experiences life - both are either conscious or unconscious, or some combination of both.

The mind is often described as an iceberg with only a small portion on the surface. The surface part is what people are conscious of, and beneath the water lies the unconscious. The important question then is what does an unconscious experience feel like? Dreams are entirely unconscious because you are sleeping - but what aspects of experience and functioning are unconscious when a person is awake?

All automatic mental processes are unconscious - all non-automatic ones that need conscious thought are conscious, though they may have unconscious aspects of experience. So a conscious thought can guide an unconscious experience. How do you define if a feeling is conscious or not, however? Feelings are a large part of experience, and the conscious mind can guide them, trigger them or inhibit them.

4.1.2 Conscious vs. Unconscious "Consciousness"

So there is a big difference between the unconscious and the conscious mind. This difference is outlined with system 1 and system 2 dual process theories. It seems like the unconscious mind is more emotional and animal-like, while the conscious mind is more logical and human.

The function of the unconscious is regulate physical activity, and give your mind the feelings related to this physical action. People aren't ever completely using their conscious mind since there are always automatic processes occurring. Those could be considered to be being done unconsciously.

Feelings and thoughts are the primary things that are either conscious or unconscious - but all a minds processes are conscious or unconscious to different degrees.

In another article I talk about what processes are conscious or unconscious in any environment **m51883** (http://cnx.org/content/m51883/latest/). People can be aware of the world physically or mentally, and this difference also relates to the different mental processes (which each could be considered to be conscious or unconscious, physical or mental).

4.1.3 Physical vs. Mental Consciousness

What is the difference between a type of 'physical' consciousness and a sort of 'mental' consciousness? Is it strictly the difference between being physically aware of your body - or experiencing thoughts or other cognitions that don't pull up a physical feeling? Are some thoughts more 'physical' than other thoughts? Here is (Davidson, Donald):

- On the proposed test of the mental, the distinguishing feature of the mental is not that it is private, subjective, or immaterial, but that it exhibits what Brentano called intentionality. Thus intentional actions are clearly included in the realm of the mental along with thoughts hopes and regret (or the events tied to these). What may seem doubtful is whether the criterion will include events that have often been considered paradigmatic of the mental. Is it obvious, for example, that feeling a pain or seeing an afterimage will count as mental? Sentences that report such events seem free from taint of nonextensionality, and the same should be true of reports of raw feels, sense data, and other uninterpreted sensations, if there are any.

I guess there are some sensations people 'interpret' to themselves and thus think more about the physical. However, all thinking could be considered to be physical since sensations are the minds inputs and all thought is visual to some degree. Maybe it is a constant mental balance, where a sensation triggers or balances a thought that is free of the physical and makes it more physical or emotional.

It could be that physical sensations are much more emotional than thoughts that are tied to mental representations (vs thoughts that are tied to physical feelings). However, which thought would be tied to a physical feeling vs a thought tied to a mental idea or concept? Or is there some sort of mix? People can internalize things and that is perhaps thinking more mentally and not physically = how could someone internalize a physical feeling? That doesn't seem to make sense - a person could experience a physical feeling, but the deep aspects of mental reflection seem more cognitive and not necessarily tied to the physical (if it is even possible for a thought to be entirely physical (even though it is a thought of a sensation, which is physical)).

4.2 The Nature of Consciousness

What are the roles of the different mental processes in the nature of consciousness?

What is the role of vision in thinking? If vision is a large part of thought processes, how does that change the nature of how an experience feels?

Judgements require concepts, however visual representations don't necessarily use concepts - you could just represent something in the world to yourself without thinking about it - so they don't *require* concepts but they probably use them in most cases. That is - most visual representations require thought, which means that they would require concepts. I would think that when concepts are used would be when an attitude is triggered - then you might start thinking about how you feel towards certain concepts. How does an image get conceptualized? Fodor asks that question here but doesn't offer an explanation (Fodor, 2007):

- Judgement requires conceptualization even if (as I suppose) representation doesn't; and, of course, there's no conceptualization without concepts. The question how (for example, by what computational process) iconic representations might get conceptualized is, of course, very hard and the answer

> is unknown for practically any of the interesting cases. On the way of looking at things of which I've been trying to convince you, that is a large part of what the psychology of perception is about.

Phenomenal states are perceptual - their vehicles belong to one of the 5 senses. So when you experience something, it is physical and sensory in nature. However, a mental image is inside your head and that is different from physically seeing something. In this quote (Prinz, 2007) says that "perceptual formats may have a kind of content that is not representational" that means that "conscious states comprise mental representations, but notice that it does not entail representationalism":

- I will define a perceptually conscious mental state as a mental state that is couched in a perceptual format. A perceptual format is a representational system that is proprietary to a sense modality. To say that phenomenal states are conceptual is to say that their representational vehicles always belong to one of the senses: touch, vision, audition, olfaction, and so on. This assumes that conscious states comprise mental representations, but notice that it does not entail representationalism, the thesis that every difference in phenomenal qualities is a difference in representational content. Perceptual formats may have a kind of content that is not representational, such that two perceptual representations can represent the same thing even though they are phenomenally distinct. With Peacocke (1983) I suspect that this is right. For example, I think we can phenomenally represent the feature of being located to the left of us, by vision, audition, touch, and probably smell. There is very good evidence that there are multiple modality-specific spatial maps in the brain (e.g., Gross and Graziano, 1995), and these may underwrite distinct phenomenal qualities even if they sometimes represent the same spatial features. So, in my definition on perceptual consciousness, I am committing only to the thesis that perceptually conscious states comprise mental entities that are in the business of representing. This definition would need to be amended only if we discovered that perceptual format includes components that are not representational in nature. It is sometimes suggested that there are words in languages that don't serve a referential function. Some expletives, particles, and logical operators may fall into this category. Perhaps perceptual symbol systems contain such things as well, and perhaps these things can contribute to the phenomenal quality of an experience. I am willing to accept that possibility. The key point about perceptual consciousness is the claim that perceptually conscious states have a perceptual format.

What does he mean in the final line of the passage - "perceptually conscious states have a perceptual format". That is being a little redundant - I mean, if the input from the world is perceptual then it makes sense that it is going to be perceptual in your mind. How the mind interprets, biases, thinks about, changes etc sensory inputs is an interesting question. Also does the mind convert sensory inputs into conceptual ideas? How does the vision of something outside the mind change when you think about that same vision independent of the stimulus? Does the mind use the same representations for different stimuli? - How are representations categorized, identified, utilized and felt by the mind?

4.3 Categorizing Functions of the Mind

The mind has many functions, and thinking takes many forms.

The mind thinks with words, visions and feelings. Any combination of those things could be used in thinking.

Some feelings the mind thinks with are strong feelings, and these probably communicate more information to the person. In fact, unconsciously there could be many strong feelings that are felt to some degree that are also informative.

So I would think that simply a simple sequence of feelings is what lies behind how the mind thinks - and each feeling could trigger thoughts, visions or other associated feelings.

So an example of this would be - 'feeling of friend' followed by 'image of friend' followed by the words 'my friend is coming to visit'.

4.3.1 How are stimuli expressed in the mind?

How are external stimuli expressed in the mind? Thoughts, feelings and words are all used to express ideas and feelings for internal thinking. How then does internal thinking differ from thinking that is the result of sensory inputs? Is a visual input broken down into categories and each of those categories expressed differently in the mind?

So if someone sees a white dog they can categorize it at least two ways - 'an object the color white' and 'a dog'. Each of those properties of the dog might trigger a category in the mind.

How is that different than when you just think of a white dog to yourself, however? Are the same mental nodes triggered or does it have a different mental reaction?

The difference between real world stimulation and internal thinking could be compared to hearing someone speak versus thinking or reading the same material. How the persons mind responds differently might be explained by how their brain processes external vs internal stimuli.

4.3.2 Recalling Experience

Thinking must be more complicated than a series of thoughts, words and visualizations that are either internal or external, however.

When an experience is recalled those things might be brought up - but each experience has a different character and that could bring up or trigger a different reaction entirely (that might be separate from the individual stimuli related to the experience).

Of course the stimuli in the experience help make that experience feel like what it feels like - however there are more complicated things occurring. For instance if three visions come from the experience maybe your mind would generate another vision that would be an internal representation of those three images from the experience.

Sensory inputs and internal outputs all are going to combine to form an experience, and the physical inputs might be recalled at various times to assist internal thinking.

4.3.3 Mental Reality and Physical Reality

That means that there is a mental reality and a physical reality. Each has inputs and outputs from the mind.

My guess would be that each input or output has a 'experiential' quality and a cognitive quality. The cognitive quality would be how the factor is understood by your thinking and the experiential quality would be how the factor is understood by your feelings.

So experiences are understood by the mind more unconsciously and understood with feelings, while more temporary inputs from sensory stimulation are felt and understood by a persons thoughts.

Feelings are unconscious - so that is why the complicated aspects of the physical and mental world are going to be experienced and understood there (unconsciously).

Cognition and thought is more simple, so more temporary processes are going to be cognitive such as images and words - however the experience of an event and its experiential qualities are going to felt and processed unconsciously.

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Chapter 5 The Definitions of Meta Representation and Meta-Cognition

Meta-cognition is 'knowing about knowing'. When a person knows what strategies their mind is using, or knows what they are thinking or how they are thinking - then they are thinking about their own thinking - and that is 'meta-cognition'.

Nelson and Narens (1990) proposed a conceptual framework that has been adopted by most researchers. According to them, cognitive processes may be divided into those that occur at the object level and those that occur at the meta-level: The object level includes the basic operations traditionally subsumed under the rubric of information processing – encoding, rehearsing, retrieving, and so on. The meta-level is assumed to oversee object-level operations (monitoring) and return signals to regulate them actively in a top-down fashion (control). The object-level, in contrast, has no control over the meta-level and no access to it.

So the object level does the automatic processes that are directed or monitored by the conscious mind. For example - text-processing is automatic and therefore it is at the object or unconscious level - however (obviously) the text is also understood consciously. This is because there is a difference between what someone understands unconsciously and what someone is understanding consciously.

Everything the mind does without conscious awareness is by definition unconscious. Therefore, most of the mind and its functions are unconscious. For instance you may remember many things you don't know about - or even understand many things you don't know consciously (but at times that knowledge might rise to consciousness).

5.1 Meta-Representations

If meta-cognition is thinking about thinking, then meta-representation is thinking about your representations.

Strictly speaking a meta-representation is a representation about another representation. In this article I use examples of representations and meta-representations, but that is subjective. Someone could label any detail as being a meta-representation of another detail it represents - it just depends what you think is representing what.

For instance if you say 'my dog is green' then you could say that is either a representation of your dog or a meta-representation since you are thinking about the representation of your dog being green.

Representations are basically something in the world that is represented in your mind in some way – Here Sam Scott explains Von Eckardt's definition of representations:

- I will use the term “representation” to mean mental representation as defined in Von Eckardt's (1999) MITECS entry. Her definition of mental representation is (I hope) sufficiently broad and uncontroversial to be acceptable to most of the various competing currents in cognitive science. According to Von Eckardt, a (mental) representation has four important aspects: “(1) it is realized by a representation bearer; (2) it has content or represents one or more objects; (3) its representation relations are somehow ‘grounded’; (4) it can be interpreted by (will serve as a representation for) some interpreter.” (p. 527) Points (1) and (4) in the above establish that a (mental) representation requires a subject that both bears and can interpret the representation.

So meta-representation is actually a type of meta-cognition then (unless it is about an external representation (I explain more about this later) - it is really just a matter of defining the terms) because someone is thinking about their own thoughts. You have a representation in mind, and when you think more about this representation it becomes a meta-representation. For instance, if you think the thought 'I have a dog' then you have a representation of 'having' your dog. If you think 'I am thinking about the fact that I have a dog' then you are thinking about your representation of your dog, so it is more 'meta' then just having the simple representation of your dog.

That makes it sound confusing, however. It seems like all representations are 'meta' because a representation is a representation that a person thinks about to themself - and whenever someone has a representation they automatically think about it to themselves. Some representations are more second- hand, however, and these are more considered to be 'meta' representations.

Hybrid metarepresentations are representations of external objects, like a drawing on a piece of paper. Here Sam Scott references Dennett's theory:

- Following Dennett (1998), it stands to reason that if a representation exists as an object in the world, then it too can be represented. Dennett's examples of metarepresentation tend to be of a hybrid nature. For instance a drawing on a piece of paper is a type of non-mental representation, which is represented in the mind of the person viewing it. The mental representation is of the drawing, but since the drawing is itself a representation, the viewer has a (mental) metarepresentation of whatever it is that the drawing represents.

When someone 'believes' something they don't necessarily have to think about it - they don't have to say to themselves 'I believe this'. When someone does say to themselves 'I believe this' then they are forming a meta-representation because they are thinking about some belief they have - they are forming a meta- representation of it. The belief is the representation, however when they think about it they become aware of it and form a higher - 'meta' representation of it.

For instance if you think 'I believe I have a dog' then you are thinking about the representation of your dog and your belief of that - so you formed a meta-representation of a representation (your dog).

That example also shows what I said previously - that metarepresentations are a type of metacognition. That is because they are thoughts about your own thinking (the thinking being representations). Unless it is a representation of an external object such as a drawing, in that case you aren't really thinking about your own thinking you are thinking about something that doesn't necessarily require that much thought or is already represented.

So it seems there could be some confusion with the terms 'metacognition' and 'metarepresentation' then. For instance, what exactly is the difference between a thought and a representation? When exactly is someone thinking about their own thoughts? When exactly is a representation a representation of another representation if they are both just individual thoughts in the mind by themselves? Could a meta- representation be a thought of another thought?

Whenever someone thinks they could be considered to be forming representations and meta- representations (or cognitions and meta-cognitions). If you think about it, as a natural part of the thought process some representations or thoughts are going to be capable of being thought about more or in another way - and those could be the 'meta' cognitions or representations about the original thoughts or representations.

5.1.1 What is the difference between representing beliefs vs other thoughts?

Is there a difference between belief and thought? Beliefs are more like attitudes because they are propositions - hence the term 'propositional attitude' - A **propositional attitude** is a mental state held by an agent toward a proposition. Propositional attitudes are often assumed to be the fundamental units of thought and their contents, being propositions, are true or false. An agent can have different propositional attitudes toward the same proposition (e.g., “S believes that her ice-cream is cold,” and “S fears that her ice-cream is cold”).

So propositional attitudes are different from propositions - what a proposition is, is one thing. How we feel about it, or how we regard it, is another. We can accept it, assert it, believe it, command it, contest it, declare it, deny it, doubt it, enjoin it, exclaim it, expect it. Different attitudes toward propositions are called propositional attitudes, and they are also discussed under the headings of intentionality and linguistic modality.

So when assertion differs from belief is a topic of concern. For example, we frequently find ourselves faced with the question of whether or not a person's assertions conform to his or her beliefs. Discrepancies here can occur for many reasons, but when the departure of assertion from belief is intentional, we usually call that a lie.

So any proposition is a thought, and any thought could be considered to be a proposition. What role does attitude or beliefs play? If you believe something, then it is likely you have an attitude about it. That is probably why you came up with the proposition in the first place - because you had an attitude or desire to think or do

something. So all propositions really have attitudes attached, but thoughts that aren't propositions don't necessarily have.

So what is the difference between a representation that is of an object in the world, an internal representation, a belief or other thoughts? Here Sam Scott references Dennett:

- In Dennett's Making Tools for Thinking (Dennett, 1998), he invites us to speculate along with him on the difference between what he terms “florid” and “pastel” representations. Florid representations are those that become explicit as objects in the world, by being encoded in language or some other physical medium (drawings on paper, for instance.) He notes that the capacity to form florid representations seems to imply the ability to manipulate the representations themselves, which leads him to raise the slogan “no florid representation without metarepresentation.” He further speculates that “belief about belief” may not be the same thing at all as “thinking about thinking” – that is, having the ability to self-consciously reflect, compare notes with other thinkers, and so on.

I would say there is a big difference between thinking thoughts that are emotional and have attitudes attached, between representing things that are emotional, and between representing and thinking things that don't have much to do with beliefs or emotion.

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Chapter 6 A Discussion about the Mind and Consciousness

How does the mind decipher meaning?

Or I might ask another question - what exactly does that mean? What is meaning in the mind anyway?

An example would be an expression or any saying basically - say someone says 'red apples taste good'. That statement has a certain significance for both the listeners and the person making the statement. Depending on their experience and understanding of how red apples taste their understanding of the statement is going to differ.

That was just a verbal example, however. The mind also gets meaning from its surroundings and physical phenomena. The red apples by themselves, for instance, might give the person an experience from just seeing the apples but probably more of one when they eat one of the apples.

So there is verbal or intellectual experience and physical or phenomenal experience - the important question then is how do these two types of experience relate to each other - here Heil states Davidson's theory (Heil, J):

- Davidson argues that ... every mental token is identical with some physical token. Your being in pain at midnight is (let us imagine) identical with some physical (presumably neurological) event occurring in your body at midnight, although there is no prospect of translating talk of pain into neurological talk.

That theory received a lot of criticism, and I can see why. It doesn't seem like that would ever be literally true - as a guideline it might make some sense that mental events or states correspond with what is going on physically with the body at any time, however they probably aren't exact because different factors are going to be determining someones mental cognitions than the factors determining their physical biology.

6.1 Concepts

According to the classical theory of concepts, concepts have are complex mental representations that have a definitional structure (the concept fits properties according to its definition).

Other theories developed such as the prototype theory and the dual theory. The prototype theory suggests that concepts fit a stereotypical prototype (kind of like Jungian archetypes). The dual theory developed later and suggests that concepts have

a 'core' and an 'identification procedure'. However 'Conceptual Atomism' suggests that concepts don't have any structure and they just correspond with what they represent - be that casual or historical.

In another article of mine **m52492** (http://cnx.org/content/m52492/latest/) I reference James Sully (1892) who points out that concepts have three parts - abstraction, comparison and generalization. That suggests that people go through a process of thinking for each concept - they compare the concept to other concepts, generalize the concept - but first just have an abstract picture of the concept.

His simple explanation basically just points out that concepts involve thinking 'more' about each concept - including generalizing it. The other theories of concepts all have valid points as well however. The prototype theory suggests generalization is involved (as prototypes are generalized). And the dual theory suggests that identification is involved (which is similar to comparison). While the atomism theory suggests that it is just a simple thought process - which would be the 'abstraction' phase of understanding the concepts.

6.1.1 Concepts and experiential qualities

So how would a thought process of a concept occur in the mind? First you would think a little about the concept - an abstraction - then you would think more about the concept and possibly compare it to other concepts or even the real experiences involving the concept (such as when the concept occurred in a real life situation) and then you would come to a conclusion about the concept and generalize it as this or that type of concept (It doesn't necessarily occur in that order, however - these are my theories).

How might someone know when a concept is being thought about? Humans probably think about a lot of advanced concepts all the time. They might only know about their thoughts or concepts some of the time however, and certainly not the full implications or experiential aspects of them (much of this must be unconscious).

Some Questions about the Mind

- One question is about perception - is its aim to provide accurate perceptions? When you consider how the unconscious mind thinks versus how the conscious mind thinks then the answer is no because many things you simply want a feel for and therefor couldn't possible have an accurate perception of.
- What is the relationship between attention to action and awareness of mind? Clearly being aware of ones physical actions gives a sense of self or agency - and that that therefore is a part of 'being present' or getting a feel for yourself and the people around you.
- How subjective is pain introspection and emotional introspection? Are pain and emotion second hand representations that come from thoughts of the original pain or are they direct feelings? Is a model of pain or emotion needed in mind in order for these feelings to be processed?

- Are there different levels to representations? Is a meta-representation a representation of another representation or is it the same representation just thought about more? What happens when someone thinks more about a representation or compares it with other representations? Can the mind be divided up that way - based on individual representations or do representations 'merge' into each other (i.e. the feeling or thought of one representation influencing the feeling or thought of another).

Some Questions about Concept and Image Associations

- When a concept is thought about more than its initial abstraction, is it thought about verbally or non-verbally - or some combination of both?
- When a concept is compared with other concepts that are related or similar - or not related and dissimilar - is it compared by using words or by using comparative images?
- I would think that when a concept is thought about 'more' it is automatically compared to similar concepts because similar things in life are naturally associated with each other.
- Is visual processing (processing of visual images or visual thinking) unconscious or conscious? That is, when the mind uses images to think does it do so unconsciously or consciously?
- Images naturally accompany thought all of the time, both consciously and unconsciously. It is hard to figure out or explain how exactly this occurs, however.
- For instance, there could be fast, more unconscious images or slow, deliberate and conscious images that accompany thoughts.
- Would the unconscious images be as useful or informative as conscious images? How is it even possible to 'partially' visualize an event or idea or experience?

6.1.2 Words provide management of images

Words manage and direct the imagination process. It would be hard to go through a sequence of thinking about one or multiple things simply by visualizing their occurrences. Here (Paivio, 1979) talks about the two processes of images and words and how they relate:

- One important hypothesis concerning the interaction of the processes is that images are particularly effective in promoting rapid associations while verbal processes give them direction. something of this kind has been suggested, for example, by Rugg in connection with the requisites of the creative act, which are said to include "a well filled storehouse of imagery to guarantee richness and freedom of association, and of ordered key concepts to guarantee organization of thought" (1963, p. 311). Imagery is characteristic of autistic thinking in general and in that context is free of logical restraints; verbal processes superimposed on such imagery presumably contribute order and direction. These hypothesized, mutually supportive functions of images and words can be viewed as a consequence of the relative weighing of parallel processing and sequential

processing features in the two systems: Imagery having both spatially and operationally parallel properties, is likely to be characterized by freedom and speed of association, whereas the sequentially organized verbal system is capable of providing organization to the associative process.

Some Questions about Representations, Images and Abstraction

- Are there different levels of the complexity of mental images?
- Can an image be thought about more by making a more complex or sequentially next image of it?
- If one image fits one representation, then it could be said that there are 'images' and 'meta- images (or visualizations)' and that those are comparable to representations and meta-representations.
- How do visualizations and images relate to the concreteness or abstractness of mental concepts?
- Would an abstract concept be harder to visualize or easier than a concrete concept?
- For instance, visualizing numbers might be simple but visualizing an abstract concept might be challenging if its symbol is difficult to understand (but it might be 'understood' unconsciously.
- So visions or images can take on a simple, unconscious form perhaps like in dreams with dream symbols and images.
- I guess that unconscious image processing is more simple than conscious processing - like how the images in dreams are more simple than images people have when they are conscious.

6.1.3 Conclusion

Images are used to compare and contrast conceptual information. People think about their experiences with these unconscious images and thoughts. A concept could be a summary or example of a certain type of experience, and using images would probably create more detail for the concept. Words obviously trigger and direct conceptual thinking, however the content of conceptual thinking comes from feelings or visualizations. Visualizations might be tied in with fast thinking or slow, emotional thinking. Doing math doesn't require emotional processes but would require complex visual processes but not necessarily complex conceptual thought - since most advanced thought is actually emotionally based and might or might not use emotional processes when thinking.

The question then would be when is an emotional process used in thinking. I mentioned that math doesn't require emotional processes and was just visual. Many concepts are just visual even if they are emotional concepts, however - so this could be difficult to figure out.

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Chapter 7 The Role of Consciousness in the Mind

What is the role of consciousness in the mind? Consciousness uses the functions of cognition and emotion to operate the mind. Cognition is basically all of a minds mental abilities related to knowledge and thinking. While sensing and feeling physical feelings are the more emotional functions of the mind.

People use their cognitions to understand the world around them. Emotions can assist in understanding as well, however they often slow down or inhibit cognition (such as when someone is drunk). Here is (Trigg, J and Kalish, M):

- In a nontechnical sense, perceiving, remembering, believing, and judging are examples of cognition; imagining, idle thinking, wondering, and intending are not. In this sense, cognition is what happens when someone takes in how things are or becomes cognizant of some thing, event, or fact. Conversely, if something is cognized it becomes known somehow to someone. To say of someone that his cognitive faculties were impaired by drunkenness on some occasion would be to say that his capacity to attend to, take in, or get to know his surroundings was impaired by drunkenness on that occasion.

James Sully wrote in a book published in 1892 titled "The Human Mind" that there are three different mental functions - knowing, feeling and willing:

- By help of such a process of analysis carried out on a variety of psychological phenomena psychologists have come to distinguish between three radically different mental functions. These, which are pretty clearly recognized in our everyday distinctions, are known as Feeling, Knowing, and Willing.
- In order to illustrate the difference between these modes of mental manifestation, we may select almost any example of a familiar mental experience. For instance, I see an apple on a tree. I may be affected by the beauty of its colour glowing in the midst of its cool green surroundings. Such a mental state of delightful admiration would be properly described as a feeling or affective state. Or, again, if I happen to be a connoisseur of apples my mind may be stimulated by the site of the object to note its peculiar characteristics with a view to characterize the particular variety to which it belongs. Such a direction of mental activity would come under the head of knowing, cognitive process of intellection. And, lastly, if I happen to be hot and thirsty the sight of the apple may very likely insight a desire to pluck and eat it and prompt the corresponding actions. And in this case what goes on in my mind would be a process of willing, volition or conation.
- It can easily be seen that there is no mental process which cannot be brought under one or more of these three heads. Whatever state of mind we happen to be in, we shall always find that it is fully described by help of these three

fundamental or primary functions. To be affected by some feeling, as wonder, love, or grief, to be following out some process of intellectual inquiry, or to be actively engaged in doing something or preparing to do something, this seems to exhaust all known forms of mental operation.

What he said about the three states of mind makes sense - of course there is more to mental functioning than knowing, willing or intention and feeling however those three functions could describe most of the surface functions of the mind - that is, what is simply going on not necessarily how the mind is doing it.

Later in the book he talks about concepts - it is important to point out that concepts are first simple and then they move to being more complex concepts as one thinks more about them. The three stages he talks about are abstraction, comparison and generalization:

- The common account of conception here followed, as made up of a sequence of three stages, comparison, abstraction and generalization, rather describes the ideal form of the process as required by logic than the mental process actually carried out. As we saw above, a vague analysis or abstraction precedes that methodical comparison of things by which the abstraction becomes precise and perfect, that is to say, definite points of likeness (or unlikeness) are detected. With respect to generalisation, is has already been pointed out that this is to some extent involved in abstraction. To see the roundness of the ball is vaguely and implicitly to assimilate the ball to other round objects. It is to be added that an imperfect grasp of general features as such commonly precedes the methodical process here described. The child realises in a measure the general function of the name 'horse' before he carries out a careful comparative analysis of the equine characters. At the same time the use of the word 'generalisation' is important as marking off the clear mental grasp of the class-idea as such, that is, the idea of an indeterminate number of objects, known and unknown, answering to a certain description.

That is a simple explanation of concepts, however. Concepts that involve the self are more complicated, and concepts also have personal intentions involved and associated with them. In this next quote Don Perlis talks about intending with expressions and intentions (such as when coining an expression and using self-reference). When someone says an expression they are intending it to refer to something (its referent), and they also intend for the listener to understand that they intend the intending. They also are referring to themselves - to their present, past and future activity:

- What is it then, for an agent to "take" one thing to "refer" to another? Consider a primitive case: coining an expression, explicitly linking a symbol s to a referent r. This would seem to be no more nor less than an intention to use s as a stand-in for r in certain contexts. Following this trail, we now ask what it is to intend something, and we are smack-dab in the middle of both philosophy of language and philosophy of mind. And to reinvoke Grice, every utterance is a case not merely of intending, but also of intending listeners to understand that the utterer intends that intending. Can all this happen in the absence of a fairly sophisticated (and quite possibly conscious) cognitive engine? Moreover, the natural languages

that we use for expression of intentions are-as noted- their own metalanguages, allowing loopy self-reference made possible by our intentions to so refer: We speak of ourselves, not just past or future, but our immediate present self and present activity including the activity of noting that activity.

- So, once again, does meta have a me? If meta involves reference, and if reference involves agency with intentions, including intentional self-referring activity, and if that in turn is at least a hint of a self, then yes.

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Chapter 8 Consciousness: Perceptions and Concepts

Beliefs are a large part of how the mind functions since they help form desires and drives. How could one carve out the mental faculties and processes responsible for belief formation and revision? Here is (Goldman, A):

- An initial phase of this undertaking is to sharpen our conceptualization of the types of cognitive units that should be targets of epistemic evaluation. Lay people are pretty vague about the the sorts of entites that quality as intellectual virtues or vices. In my description of epistemic folkways, I have been deliberately indefinite about these entities, calling them variously "faculties," "processes," "mechanisms," and the like. How should systematic epistemology improve on this score?
- A first possibility, enshrined in the practice of historical philosophers, is to take the relevant units to be cognitive faculties. This might be translated into modern parlance as modules, except that this term has assumed a rather narrow, specialized meaning under Jerry Fodor's (1983) influential treatment of modularity. A better translation might be (cognitive) systems e.g., the visual system, long-term memory, and so forth. Such systems, however, are also suboptimal candidates for units of epistemic analysis. Many beliefs are the outputs of two or more systems working in tandem. For example, a belief consisting in the visual classification of an object ("That is a chair") may involve matching some information in the visual system with a category stored in long-term memory. A preferable unit of analysis, then, might be a process, construed as the sort of entity depicted by familiar flow charts of cognitive activity. This sort of entity depicted by familiar flow charts of cognitive activity. This sort of diagram depicts a sequence of operations (or sets of parallel operations), ultimately culminating in a belief -like output. Such a sequence may span several cognitive systems. This is the sort of entity I had in mind in previous publications (especially Goldman 1986) when I spoke of "cognitive processes."
- Even this sort of entity, however, is not fully a satisfactory unit of analysis. Visual classification, for example, may occur under a variety of degraded conditions. The stimulus may be viewed from an unusual orientation; it may be partly occluded, so that only certain of its parts are visible; and so forth. Obviously, these factors can make a big difference to the reliability of the classification process. Yet it is one and the same process that analyzes the stimulus data and comes to a perceptual "conclusion." So the same process can have different degrees of reliability depending on a variety of parameter values. For purposes of epistemic assessment, it would be instructive to identify the parameters and parameter values that are critically relevant to degrees of reliability. The virtues and vices might then be associated not with processes per se, but with processes operating with specified parameter value.

So various mental faculties might be responsible for belief formation like memory and vision. I would think that emotional processes also would obviously be responsible as well (as beliefs are emotional). Unconscious or conscious processes could help form beliefs, and that in turn could determine what the persons goals and drives are like.

How does the mind process sensory inputs? Sensory experiences in the mind have the label 'qualia' (Kim, J):

- Sensations have characteristic qualitative features; these are called "phenomenal" or "phenomenological" or "sensory" qualities-"qualia" is now the standard term. Seeing a ripe tomato has a certain distinctive sensory quality that is unmistakably different from the sensory quality involved in see a bunch of spinach leaves. We are familiar with the smells of roses and ammonia; we can tell the sound of a drum from that of a gong; the feel of a cool, smooth granite countertop as we run our fingers over it is distinctively different from the feel of sandpaper. Our waking life is a continuous fast of qualia- colors, smells, sounds and all the rest. When we are temporarily unable to taste or smell properly because of a bad cold, eating a favorite food can be like chewing cardboard and we are made acutely aware of what is missing from our experience.

How do these sensory qualities determine how we feel overall? Does the physical match up with the mental? (Kim, J):

- On the functionalist account, mental states are realized by the internal physical states of the psychological subject; so for humans, the experience of red, as a mental state, is realized by a specific neural state. This means that you and I cannot differ in respect of the qualia we experience as long as we are in the same neural state; given that both you and I are in the same neural state, something that is in principle ascertainable by observation, either both of us experience red or neither does.

So some aspects of mental states are physical and some are mental - here is another quote from the same author (Kim, J):

- In any case, is seems plausible that there are conscious mental states with no special phenomenal character. In general, mental occurrences that we call "experiences" appear to be those that possess phenomenal properties. Sensing and perceiving are experiences, but we do not think of believing and thinking as experiences. If this is so, the idea of phenomenal character and the idea of there being something it is like may come apart, though only slightly. For it certainly seems that there is something it is like to believe something, to suspend judgment about something, to wonder about something, or to hope for something. But as we saw, at least many instances of these states do not seem to have any phenomenal character.

How does someone know when they are conscious of something or in a conscious state? A good way to answer that would be to compare animals to humans, as that might illustrate how humans are more conscious. - Can you attribute intentionality without attributing consciousness? Here (Gennaro, R) asks that question:

- Can significant explanatory power be achieved by making intentional attributions without attributions of consciousness? It seems to me that the answer is clearly yes, as the animals' case in the previous paragraph shows. We would, I suggest, still rightly attribute all unconscious intentional states to such animals. would or should we withdraw intentional attributions to an animal if we later come to agree that it is not conscious? I don't think so. Such attributions are useful in explaining and predicting animal behavior, but it does not follow that they have merely "as-if" intentionality. In some cases, we may not know if they are conscious. The same i suggest, would hold for advanced robots. This is not necessarily to embrace some kind of antirealist Dennetean "intentional stance" position (Dennett 1987). For one thing, we might still agree that those systems have genuine internal mental representations.

I would say that animals have perceptions or even higher-order perceptions (HOP) but don't have thoughts or higher-order thoughts (HOT). A perception or thought is higher order when it takes another perception or thought as its object - such as you being aware of your thought or perception on a certain thing. Animals might have thoughts or perceptions then, but probably not higher order ones since they are basically functioning unconsciously if you were to compare them to humans.

You could say that animals don't really have 'conscious' thoughts since they don't think about what they are thinking about. They don't really have higher-level thoughts since they just have simplistic thoughts or thoughts that don't involve complex representations (or they don't make the representations complex).

For instance when someone thinks 'I just did this' then they are thinking more consciously about what they did and the thoughts that were involved. That enables further action or introspection that animals don't have.

8.1 Is the mind physical or mental?

Physicalism is a philosophical position holding that everything which exists is no more extensive than its physical properties; that is, that there are no kinds of things other than physical things. Knowledge or concepts, however, are mental constructs not physical ones, so it follows that physicalism leaves something out.

8.2 How are words processed with concepts and knowledge?

When someone thinks of a word their mind automatically compares it to other things and makes associations with other words and other concepts your mind understands. It could be viewed that a word is a set of related mental nodes, and that similar or associated nodes are explored or activated when one thinks of the word. That is

saying that a process of comparison occurs with each word that is thought about - which I mention in another article of mine - **m52495** (http://cnx.org/content/m52495/latest/)- where I reference James Sully (1892) who points out that concepts have three parts - abstraction, comparison and generalization.

Other propositions about the word are inferred, of course - and those related nodes are also activated.

So then words and concepts are actually very simple when you think about them as computationally processed. However, when someone 'infers' something it isn't simple at all. They are making a guess as to what that concept is like and how it might be like other concepts.

'Inferring' then is basically analyzing levels of emotional subtlety. You get an idea of an idea or concept and this idea triggers you to think more about it and guess or infer other properties related to it.

Is understanding that simple then? How much of this 'inferring and relating' process is emotional? someone could do mathematical calculations, which would involve activating networks like a computer does - but it wouldn't process the information exactly like a computer at all. The nodes connecting the mathematical equations would be emotional nodes or nodes with feeling and the consequences of feelings attached, not like a computer that is programmed with 1s and 0s.

8.3 Concept aquisition

A concept can be an association between a mental representation and a perceptually represented object, or a concept could be an association between a feeling and an object (both are basically the same thing).

Concepts are formed when unconscious feelings become linked to an object - this makes the object more able to be verbally described and conscious.

If animals formed concepts then they would be able to adapt their behavior in more creative fashions because they would be capable of more complex thought. The concepts they form are merely unconscious - A leads to B,, so don't do A - which is less sophisticated than a humans ability to manipulate concepts which goes something like 'maybe I can do this instead of that because of this or that reason'.

8.4 Concept categorization

Concepts are going to be categorized differently. Sometimes concepts fit several categories and are grouped or associated with other concepts.

Concepts are complex mental representations - that is why they go into so many different categories - because each word or concept in life is related or belongs with other events, experiences and ideas.

My guess would be this might help explain how the mind functions - different areas of the brain are going to be more biased for certain types of experiences or concepts and when a concept is thought about that region of the brain gets more activated than the other regions of the brain the concept is less associated with. That also explains how brains can function without the organs being fully developed in a 'final' state - because a lot of the brain can still work just with less functionality.

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Chapter 9 The Scope of Consciousness and the Conceptual

There are many ways in which the mind represents the world as a whole and the individual objects in it. I could say that mental states have been determined by the minds representations of all internal and external data.

At any time humans are in some various mental state - i.e. happiness, curiosity, anger, excitement, dread, or passiveness. I guess a question could be why is it hard to have a mix of some mental states - such as a combination of happiness and anger? Some combinations of mental states are common and make sense, while others (like being happy and sad at the same time) are hard on a person or difficult to acquire.

That is why concepts and consciousness has a scope and a limit - because there are only so many combinations of mental states, and it is hard to achieve many of these states.

9.1 Concepts, Perceptions and Beliefs

How are concepts, beliefs and perceptions related?

I suppose it depends on which type of each of those is being referred to. For instance 'perception' could mean just simple visual perceptions or it could mean how the mind perceives emotional or conceptual phenomena. 'Belief' could mean beliefs that are independent of stimuli (that you think about at a random time) versus beliefs a person forms from current incoming stimuli.

Conceptual phenomena can vary considerably. There are simple concepts like understanding the purposes of objects - those are definitional concepts. Other concepts concern human or animal behavior and an understanding of how they achieve certain goals. Other concepts are more emotional and concern beliefs and motivated goals, or abstract emotional concepts like in politics, history or the news (such as human events and affairs).

I guess the important question to ask then is how do those three ideas - conceptual thinking, perceptions and beliefs relate to each other considering the differing topics involved.

For instance, for any perceptual stimuli a concept, belief or abstract perception could be formed.

Chapter 10 An Idea of Mental Abilities Cognition, Language and Developtnent

What is the relationship between cognition and language, and how do those processes develop?

When someone learns something new they are going to think about it in some way. Words assist learning, and the choice of words that someone uses is going to influence the meaning behind what is learned.

That isn't necessarily the case, however. It could be that your unconscious mind has an emotional understanding of the knowledge, and the words you use simply point to this understanding - and if you happened to use different words it could point to the same understanding.

Words Assist Learning

- Words assist learning everything - for whatever topic in life you think about with words, the fact that you use words to think about the experience or whatever it is helps understanding.
- Although that doesn't mean that in every case if you think more with words you'll understand something better.
- Life is about various types of emotional understanding, and words can assist or even possibly hinder this understanding.
- So when a baby uses a word like 'goed' - that has an emotional understanding for the baby. The word might not seem to make any sense, but it means something to the baby.
- Etc.

10.1 Emotion is a powerful motivator

Not only does emotion provide information and drive for our thoughts and the words we use, it also motivates our behavior at the same time. Harré (1981a) claims that in the 'real' world, explanations are functional in a self-presentational sense. They function as a ritual display, as rhetoric, as show: they are designed to impress, and affect others impressions. And that people operate in a 'rhetorical impression manipulating manner'. There is a self-presentational motivation for peoples explanations (that is, someone has in mind their own presentation of themselves, what they look like, how they are perceived by others, etc when they make any

explanation). Here Harré (1981b) tries to subsume all human affairs into a self-presentational motive:

- What sort of statements are being made in concrete social activities, such as strikes, riots, parties, working breakfasts, overtaking in the inner lane and so on? Starting with these as rough guides: modern strikes can hardly be seriously taken to be economically motivated. They are best understood as claims to recognition and dignity, as displays of worth: riots too may be something like that: look at me, and take me seriously.

So when people think in social situations, their thoughts are probably mostly emotionally driven by self- presentational goals. This doesn't mean that all thought is driven by emotion, it simply means that a lot of thought is motivated. So I have brought up a slightly different question here - how much of thought is emotional? What is it like to have a thought be motivated by feeling vs. not?

10.2 Classifying types of mental information

What are the different types of mental information? There are abstract concepts and objective facts - which relates to emotional information and numerical ability respectively. There is reasoning ability, and there is associative memory (which is basically linking similar objects together for faster recall). Reasoning ability doesn't necessarily relate to the amount or speed of someones memory - reasoning is something someone can think about by choice, while memory is less under someones control. A person could think of this or that in order to help remember something, however that wouldn't effect their measured I.Q. memory. Reasoning, however, is very subjective and someone could do a lot to increase reasoning ability.

What is subjective about reasoning information? It is that the information is about emotional material. Historical fact is about emotional material, and you could be considered to be using your reasoning ability when thinking about history. In fact, any idea related to human motivation is emotional and therefore subjective and subject to someone's reasoning ability. Unless someone uses reason to solve a math problem, or something objective, then reasoning is using emotional information and is subjective.

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Chapter 11 Dreams Rarely Make Sense Because They Are Usually More Emotional Than Logical

Dreams in general tend to be weird. This would suggest that whatever engine is engineering, or designing the dreams is a weird and/or stupid one. Things in dreams often don't make any sense in reality, but dreams are often incredibly sophisticated at the same time. This would suggest that dreams are emotional, not logical. Emotion is very complicated, but it often doesn't make any logical sense. Dreams convey feelings very well, they amplify feelings, they don't amplify logic.

For example, say you were thinking about a toothbrush that day, or had a lot of thoughts about brushing your teeth, or had some trouble with the dentist and it was bothering you. In your dream that night, you wouldn't think about the events of the day, or logically think about how you could fix your tooth problem. In fact the logical thing would probably never occur in your dream, that would be out of character since dreams are more emotional, you'd probably never dream thinking "ah I should brush my teeth more thoroughly". Instead you'd dream of a really big toothbrush or something immature, childish, and extremely emotional. Or maybe get a large sensation of your teeth being brushed. See how one is more emotional than the other?

Dreams are so emotional that there is little room for anything logical, it's as if all your brain power is being converted into it's emotional essence. This is easy to prove, think of any dream you've ever had, or ever heard of, whatever it was, it didn't make complete sense. The fact that NO dream EVER makes complete sense must mean that the higher, logical part of your brain is shut off during sleep. That makes sense since if you were actually thinking, you'd want to experience real emotions and move your body around to get that experience, not just think about them.

This might make dreams more sexual or Freudian, but more importantly anything that is most strongly emotional to the person having the dream. Take this dream for example "I was at a type of arena-ish thing but it had balconies like a theater would." Notice first off that it doesn't make sense, arena's don't have balconies like a theater would. Clearly if the person was thinking clearly she/he wouldn't have been able to put theater balconies in an arena. Now there sometimes are balconies in an arena, but this person must have been referring to balconies that were pretty like they are in theaters with strong contrast to the arena, say like a stone arena with pretty wooden balconies in pink and stuff in them. That description I gave sounds like a typical dream because it doesn't make sense, and due to the contrast/mix of the arena and the theater, it is very emotional.

The mix of the two things makes it more emotional because it is something which you wouldn't find anywhere in reality. Things that stand out tend to be more emotional, and anything that doesn't make sense, like doesn't make ANY sense, is going to be emotional because it stands out from your everyday experience. Something like a giant gumball rolling over and over in your head, that doesn't make any sense, and its emotional. But why is it emotional? It is because you never find giant gumballs (that are chewed just standing around outside) so if you found one, you'd be in shock, and very emotional.

There are things that are emotional and can be found in real life of course. Take this dream "I was a warrior in a med-evil battle with Mel Gibson and we fought some kind of beasts with our golden swords lol Mel got his head chopped off and I awakened when I was being choked by a med-evil beast. ..." It would probably be more emotional for the dreamer to be doing something with Mel Gibson, since it's not likely he'll ever do something with Mel and therefore would find it rare when he did, so it's a not realistic, out of the ordinary, emotional experience. Furthermore they are using gold swords, how often are gold swords used? Gold is a more emotional color than steel as well. Color is emotional, so color, a dramatic color, or large color contrasts are often found in dreams to further amplify emotion.

Take this dream, see how emotional it is, emotional, not realistic, and amplified for dramatic content.

"I am the best student in a hard science class of some sort. Every day before class I hold study sessions. Everyone fails the first test but me. We are all milling about in the hall after class. The teacher and some other students express interest in the study sessions, but I say I don't really need them. They seem disappointed. Then I tell everyone "Hey, all those study sessions that I've been having... BY MYSELF... will still be there next week" inviting them. The professor asks anyone with a disease to hang around and see her in ten minutes, saying she has the shakes. She's very concerned with her health, which has been strange for some time. I think about staying, but I leave. I see Joe Horvath in the hall and hug him, but I see that he has a finger the looks like it was smashed and healed flattish and deformed. There are flecks of blue paint or nail polish or the nail is flecked blue. When I ask him about it he says he didn't even notice and doesn't know what happened, but it doesn't hurt."

The dreamer thinks he is the best in the class, not just any class, but a hard science class. He is so much better than anyone else, that he has "study sessions" by himself. Of course that doesn't make any sense, the people were asking him about a study session, implying that a study session would involve more than one person, like they usually do. But in his dream he forgets logic and all of a sudden he is the only person needed for a study session, in real life he wouldn't have said that because it just wouldn't be a proper thing to say - he wouldn't say something that silly in real life. To make the dream even more emotional another out of the ordinary event is occurring: the teacher is feeling sick, and her health has been "strange for some time" not bad for sometime, but strange for some time, the word strange would imply something really out of the ordinary going on, like an extraterrestrial disease or something weird, the weirdness and out of the ordinariness being added for extra emotional content, of course. Does this mean that the dreamer is afraid of a strange disease? No it just means he is trying to entertain himself in his sleep by adding extra dramatic content

by using the word strange, instead of bad. (it's extremely rare to use the word strange when describing that one is sick, so what I suggested about extraterrestrial implications makes more sense). When you say, "oh I've been feeling strange lately" you are implying that something really weird is going on with you (or in this case your health) which would bring up further rise for concern, or a further rise in emotional, dramatic content!

Take this dream "We're in a hotel. We all have rooms, but we're in Steve's room. There are multiple beds that may be stacked. We are trying to make music. A boy starts playing guitar and it's fantastic. Steve holds up my cell phone, it's recording, he hands it to me. Steve asks me to play it back. There is a lot of music. One song my clarinet is so sharp. Steve says 'if you can't hear that…' condescending. Steve leaves the room. We are competing for his attention, girls and boys. I am on a bed that is high. I know I'm the favorite and they're asking me about it and I decide to leave. I slide off the bed, then reach up under the rail and grab a black candle (handmade) and a cigarette and something else." That is also very out of the ordinary, in fact that would probably never actually happen in real life because everyone in the hotel would hear the music. The dreamer obviously wasn't logically, clearly thinking. If she/he was then the dream would have ended with the people next door complaining about the noise, or there being somewhere in the dream something about checking to see if the hall was clear, but even then someone might walk down it. The point is it is very out of the ordinary, which, since it is rare, is probably more emotional solely because it's a new and exciting experience that you furthermore can't have in real life, so it also has that "I want it since I can't have it" emotional feel. This is the real kicker, you can sense that the dream wouldn't have made any sense if they actually checked to see if there were other people in the hall. It is only an ordinary, regular dream, if it doesn't make sense. And you can sense that that is true.

Let's see how out of the ordinary this dream is. (All this so far proves that dreams are out of the ordinary, probably just to add emotional content because of the contrast with reality). "We are rehearsing. Instead of a lyrics sheet there is a flat piece of 3D art. It's a series of concentric circles. One of the circles is made to look like a brick wall. That's the verse I am supposed to sing. I get singled out and have to sing the verse alone. It's about life going around and down forever. There's an infinity symbol."

For starters there is no such thing as a flat piece of 3D art, 3D is 3D, but you can see how that would be fun for the dreamer to think about, entertaining for him to think about how it could be 3D, yet not 3D at the same time. This emphasizes the emotional content, but it low on the logical content. Why is the emotional content emphasized? Because dreams are for entertainment, you're trying to have fun in your dream. So he/she mixes the lyrics sheet, 3D art, and flat together. That's a fun thing to do. Dreams in general are going to be more on the fun side, less on the logical, ah this makes sense side. Take the line "one of the circles is made to look like a brick wall". That just doesn't make any sense. Exactly, that's what is fun about it, trying to imagine something that doesn't make any sense. Trying to put together in reality, things that just can't be put together. It's like you're trying and trying to do something that just can't be done. That's behavior typical of an immature child that just won't give up. It's fun to try and break reality and put things together that don't belong together. That way you create something new and different, something you'd want to dream about. People don't

want to think clearly in dreams, they want to relax, have fun, and do things that they never could in reality. See things they've never seen, and experience emotions that they aren't going to be able to experience in other places.

11.1 Dreaming and the Brain

"Although the details of human hopes are surely beyond the imagination of other creatures," writes Jaak Panksepp in Affective Neuroscience: The Foundations of Human and Animal Emotions (1998), "the evidence now clearly indicates that certain intrinsic aspirations of all mammalian minds, those of mice as well as men, are driven by the same ancient neurochemistries."

Panksepp describes the SEEKING system as follows:

- This emotional system is a coherently operating neuronal network that promotes a certain class of survival abilities. This system makes animals intensely interested in exploring their world and leads them to become excited when they are about to get what they desire. It eventually allows animals to find and eagerly anticipate the things they need for survival, including, of course, food, water, warmth, and their ultimate evolutionary survival need, sex. In other words, when fully aroused, it helps fill the mind with interest and motivates organisms to move their bodies effortlessly in search of the things they need, crave, and desire. In humans, this may be one of the main brain systems that generate and sustain curiosity, even for intellectual pursuits. This system is obviously quite efficient at facilitating learning, especially mastering information about where material resources are situated and the best way to obtain them. It also helps assure that our bodies will work in smoothly patterned and effective ways in such quests.

When the mesolimbic pathway from the dopamine-producing VTA to the nucleus accumbens is stimulated, SEEKING behavior ensues. Panksepp writes: "For instance, stimulated rats move about excitedly, sniffing vigorously, pausing at times to investigate various nooks and crannies of their environment. If one presents the animal with a manipulandum, a lever that controls the onset of brain stimulation, it will readily learn to press the lever and will eagerly continue to 'self-stimulate' for extended periods, until physical exhaustion and collapse set in. The outward behavior of the animal commonly appears as if it is trying to get something behind the lever."

The mesolimbic pathway is activated trans-synaptically by normal rewards (food, water, copulation) but it can also be activated directly by the induced rewards of intravenous drugs or electrical or chemical brain stimulation (Wise). [1] The mesolimbic pathway is one of the dopaminergic pathways in the brain that modulates behavioral responses to rewarding stimuli. It originates in the VTA and connects to the limbic system via the nucleus accumbens, the amygdala, and the medial prefrontal cortex. A number of drugs are rewarding when they are injected into the nucleus accumbens

1. Wise RA. "Brain Reward Circuitry: Insights from Unsensed Incentives." Neuron. 2002; 36:229-340

and act as mesolimbic dopamine terminals, [2] and the axons of the mesolimbic dopamine system have high thresholds for stimulation (Wise).

Panksepp points out that when animals are in an appetitive state, anticipating a reward such as food or sex with a receptive mate, dopamine levels increase. But once an appetitive state turns into a consummatory state, dopamine levels immediately begin to decrease. So increasing levels of dopamine are not associated with consummatory, pleasurable activity. Rather the opposite is true. Pleasure is associated with decreasing dopamine levels. This does not mean that "reward" circuitry does not exist. Panksepp writes: "Temporal and frontal cortices contain an abundance of neurons that fire only in response to stimuli that have acquired meaning by being predictably associated with rewards."

That just means that once someone gets a reward they are satisfied. Most types of reward increase the level of dopamine in the brain, however pleasure apparently decreases dopamine levels.

Since humans think less when they are dreaming, it makes sense that dreams are emotional and not logical. I could say that they are driven by their 'reward system' when they are dreaming - the higher intellectual functions of their brain are shut off. They retreat into a more simplistic emotional state where they turn normal daily activity into some sort of silly movie.

During dreams, connection to your voluntary muscles is disabled. However, the person you are in your dream can move and it is as if then you can move your muscles in your mind. - REM sleep, the stage of sleep during which dreaming occurs, is characterized by paralysis of the voluntary muscles. Why? The phenomenon is known as REM atonia and prevents you from acting out your dreams while you're asleep. Basically, because motor neurons are not stimulated, your body does not move.

While dreams are often heavily influenced by our personal experiences, researchers have found that certain themes are very common across different cultures. For example, people from all over the world frequently dream about being chased, being attacked or falling.

So not only are dreams emotional, they also have a physical presence. - In your dreams you are really there and you can feel what is happening to you. That is why dreams of being chased, attacked or falling are fun, because you can 'feel' those sensations.

So in your dreams, not only are you using your imagination to run or move around, you are using your imagination to create worlds to run and move around in. Furthermore, these generated worlds are mostly from life events that are easily recalled in memory or simply more emotional.

So why does your mind make the dreams it makes? Does it select more emotional things to dream about or things that are simply more fun to dream about? (Apparently it does both)

2. Lassen et al. "Brain Stimulation Reward is Integrated by a Network of Electrically Coupled GABA Neurons." Brain Research. 2007 ; 46-58.

So dreams are more emotional, and I think they also achieve stimulation from a more basic, reward based brain chemistry. The nature of emotion is reward based and simplistic, so it makes sense that dreams are that way since you aren't thinking.

11.2 Images in Dreaming

How does the mind construct images in dreams? What do dream images look like? This is a much more complicated question than simply asking if someone dreams in color or black and white. The mind could reconstruct video - like if you watched a movie clip and then your mind replayed it in your dream. But how would your mind reconstruct the movie clip? It would surely alter it in a way similar to how dreams are different from ordinary experiences.

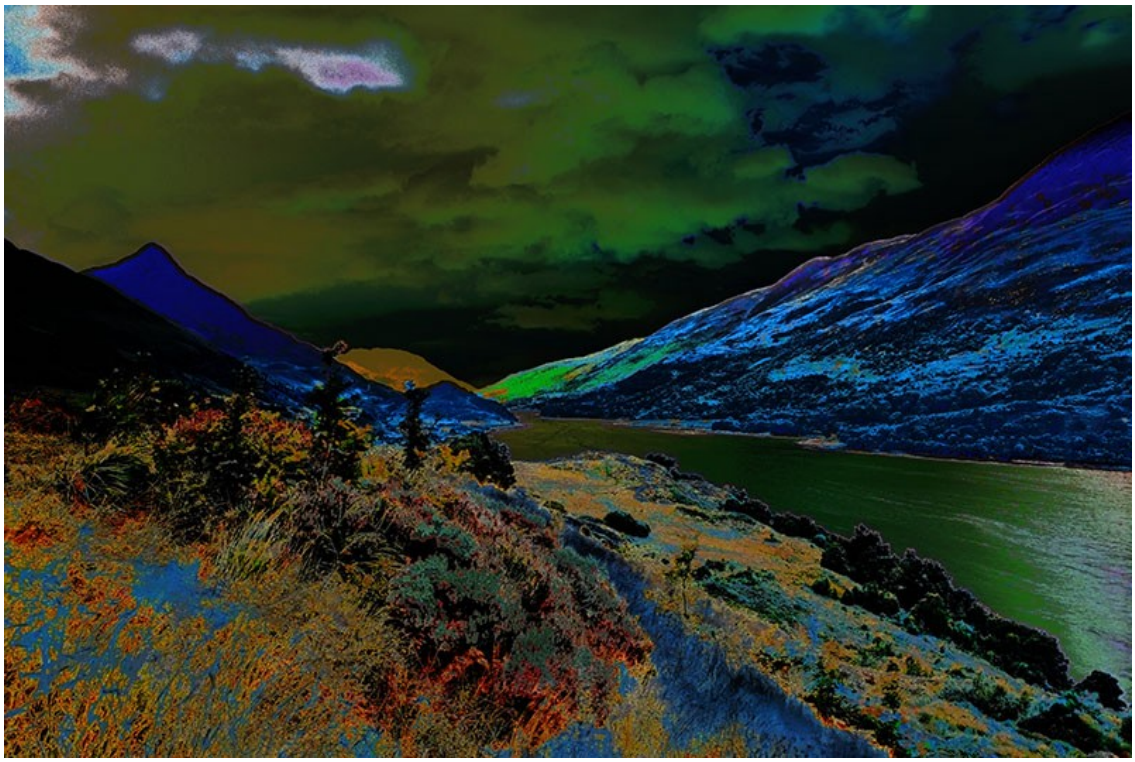

Figure 11.1 Loch Leven and Pap of Glencoe mountain By Mark Pettinelli

The above image represents what seems to me dream images are like. They are dulled down - since in dreams you are thinking less - but they are more emotionally potent. So the glowing colors make this image more emotional (similar to how gold is an emotional color), and they make it easy to see the image without thinking, as if seeing something glow in the dark.

My guess would be that when someone closes their eyes the patterns people can see on their eyelids (kind of like glowing outlines of abstract objects) help them to go to sleep because they are similar to dream images - it is dark because your eyes are closed and the faint lines or colors are very abstract so this low level of abstraction - similar to a dream - helps induce relaxation and sleep.

Dreaming and sleeping unlocks and uses the power of the unconscious mind. The unconscious is not as clear as things that are conscious, in order to think something

and understand it it has to be clear, if it is more abstract or artistic the the thing could be described as being more unconscious.

Chapter 12 How can someone benefit from an understanding of psychology?

What psychological information could someone benefit by? How does self-help or therapy work? Those two questions are similar because through many self-help or therapy exercises someone gains a greater understanding of psychology. Therapy and psychology can help someone because they reflect more on their thoughts and their emotions and this helps to change them. There isn't any advanced psychology in non-civilized populations (at least I don't think since they don't have any education system), however they also don't have the same mental health problems.

But psychological information can be used for self-improvement as well. I should say that I am not a licensed psychologist, however I have a lot of knowledge and experience related to this. Clearly people learn from thinking about their emotions. Therapy or self-help is a focus on things you find important, like your mental condition. You could say that meditation works the same way - when you focus on yourself you can benefit.

Attitudes can take a long time to change. Emotion is complicated and dynamic. If you think about it, so is experience. But an attitude is simple - it is an attitude, everyone understands what an attitude is. It is a display of some bias or opinion about something. You have an attitude about something - you are displaying how you feel about that thing. You feel strongly about something, that is an attitude.

So it would seem to me that things can go wrong mentally, resulting in a mental problem, if the feelings you have toward certain things are too large. You could say that the person has an 'attitude problem'. But attitudes are simple. How the mind functions is much more complex. But people don't care about how the mind functions, they only care about things that are important to them like attitudes.

It is like when someone has a psychological problem, their attitude is too large. This large attitude causes the emotions that the person is experiencing to go out of balance. Emotions need to work properly, if you are feeling too strongly about one thing this could disrupt how you feel in general.

So the important question is - how could an understanding of psychology possibly decrease a strong attitude? That doesn't seem to make any sense, it would seem like the only way to decrease an attitude would be to show the person the opposite attitude, which isn't really that deep an understanding of psychology, it is just a basic simple idea.

So then you could really call anyone that understands that 'exposure to the proper influence over time decreases dangerous attitudes and feelings' is a psychologist.

Is psychology really that simple though? I know that there are lots of subtleties, but what are these subtleties about? People can be nice or mean in the wrong way. Depending on the circumstances, there are many different ways that someone can act. Each different way of acting socially could be analyzed and the person could work on that.

It seems simple when I say it that way, but that is basically what this is about. You go through an experience of practicing exposure to the proper behavior. You need to also consider the reason the person developed the strong attitude in the first place as well, however. The person probably wants that attitude to be strong, that is why he or she developed it in the first place, you need to consider that the person doesn't want to change and likes being violent.

I am not suggesting that everyone with a mental condition is violent. Maybe they are the opposite, it is just more clear when I use violence as the example.

That is why I said before that the emotions need to be properly balanced - because something like someone getting too violent can throw how they feel out of function.

But surely there is an aspect of self-improvement that an understanding of psychology can give you. It might help you understand emotion better. The question then is, couldn't someone get an understanding of emotion naturally or by doing practically any type of other work?

By studying psychology you make your natural understanding of psychology more conscious. For instance you might notice to yourself certain points of observation when you are in the real world observing how emotion functions. You might be able to describe with words better the nature of emotion or an emotional response instead of just simply having a feeling for it.

Chapter 13 Psychology for Self Help

- People have a certain understanding of their own actions. This is true for specific, individual actions where you can understand to different degrees what you are doing and if you are conscious of what you are doing - and this is true with more complicated actions and behaviors (such as a behavior that you have to think about or reflect on in order to understand what your action was.
- People have various beliefs about themselves, about the world, about what they are doing in the present time. These beliefs can influence your actions at any time. A certain belief can be brought up consciously (recalled or a new belief initiated) or a belief could have an unconscious influence on what you are doing. For instance a belief that you forgot you had or some bias you have.
- There are only a few basic personality traits that people can have. There is their moral disposition - if they are nice or mean. There is their energy level, their nervousness, their type of intellect or way of thinking. There is their social dispositions - extroverted, agreeable, etc.
- You can try and measure emotions in social interactions. For instance the emotion of love might only be present between two people who are in love occasionally. You could also try to measure it over a longer period of time, and try to observe certain indicators that point to if that emotion is occurring.
- Furthermore, in every social interaction there are going to be various emotions interacting with each other. This is a part of the 'mood' or 'atmosphere'. For instance there could be a humorous mood or a romantic mood, or maybe those two emotions/moods are interacting with each other during the interaction.
- This brings up the point that there are various ways someone can be conscious of their emotions. Someone may have an emotion, but that doesn't mean that it is easy for them to feel or understand that it is occurring.
- A mood or emotional state consists of a certain set of feelings (happy, sad, exciting, etc), in addition to having its own unique feeling.
- Emotion can cloud intellect. The various ways of thinking can be related to someones social disposition (if they are an introvert or an extrovert). Jung discussed the introverted type of thinking - '"this kind of thinking easily gets lost in the immense truth of the subjective factor... the extraordinary impoverishment of introverted thinking is compensated by a wealth of unconscious facts." (Carl Jung, "Psychological Types".) He seemed to think that introverted thinking was defective somehow, yet more internal and possibly deeper unconsciously.
- Your thinking (conscious and unconscious) determines who you are and what you feel.

Chapter 14 Unconscious Thinking and Feeling - And Cognitive Behavioral Therapy

- Cognitive behavioral therapy (CBT) is a psychotherapeutic approach that addresses dysfunctional emotions, behaviors, and cognitions through a goal-oriented, systematic process. The name refers to behavior therapy, cognitive therapy, and to therapy based upon a combination of basic behavioral and cognitive research. [1]

A major aspect of CBT is to use an analysis of someones thoughts and feelings - how their feelings lead to thoughts and how their thoughts lead to feelings - as a way to help the person understand how they can change their thoughts and how this might help them change their feelings. Obviously they also analyze how thoughts and feelings relate to behavior as well.

But how much of someones thinking is unconscious? Someone can have a thought that they aren't aware of. They could have some belief, attitude, or thought process that they aren't aware of. A belief is something you are thinking that isn't a fact - which would be something you know to be true (or think you know to be true). So when I say that you might have some belief you aren't aware of that means anything you think that you aren't certain of. I would say that everything in the mind that you think is either a fact or a belief, or a more complicated thought that is more like a paragraph which would be describing something.

Surely when you are interacting with someone there is potentially a lot of unconscious beliefs and ideas you might form about the other person. You could be biased against them and not know it very easily. In fact, there might be subtle shifts in how you are biased against them many times during a conversation.

But is that what the unconscious is about - beliefs, facts, and ideas that you have that you aren't aware of? Or is it about deep motivations and powerful emotions that are influencing your feelings, thoughts and behaviors?

There is a lot of mystery behind what is happening in your mind unconsciously. That is why it might take a lot of work thinking about your own thoughts and feelings in order to change them. If you have some strong attachment or drive that needs to be changed - it is a powerful unconscious one, and you would need to do a lot of work over a long time in order to change how you feel.

I am not a licensed psychologist, but it is obvious that certain behaviors or ways of being can only be changed over a long period of time. If someone feels passionately about something, this cannot change instantly. That shows how any behavior might

1. Retrieved from http://en.wikipedia.org/wiki/Cognitive_behavioral_therapy 9/8/2012

take a long time to change. People get used to acting a certain way and this can only be changed by showing them or practicing new ways of acting. They have deep unconscious beliefs and attitudes that are strong and reflected in many aspects of their actions. Such complicated and subtle behavior cannot change instantly because it is too complicated to change instantly - if a behavior is complicated then it is going to take a long time to change because there are many things that need to be changed about it.

You might not notice all of the things that change, however if you think about it an attitude is probably going to have many associated beliefs and unconscious drives that need to be addressed. This is what experience is. It isn't simply that an attitude is large and needs to be decreased over time - there is also a learning process.

What can be said about this? If a motivation is large, then why does it take so long to change? It seems to me that if you describe the motivation as 'unconscious' it shows that it is very large, because most of the mind is unconscious. What does the word 'unconscious' bring up anyway? Is it merely a way of saying something is more significant than you would think because you aren't aware of its full impact?

Human beings aren't aware of a lot of things about themselves, that is why saying 'unconsciously' brings up so much. Even some action you would consider to be 'conscious' is really 'unconscious' because everything you do you don't know the full implications of.

Chapter 15 My Theories about Mindfulness based cognitive therapy

In 1991 Barnard and Teasdale created a multilevel theory of the mind called “Interacting Cognitive Subsystems,” (ICS). The ICS model is based on Barnard and Teasdale’s theory that the mind has multiple modes that are responsible for receiving and processing new information cognitively and emotionally. Barnard and Teasdale’s (1991) theory associates an individual’s vulnerability to depression with the degree to which he/she relies on only one of the mode of mind, inadvertently blocking the other modes. The two main modes of mind include the “doing” mode and “being” mode. The “doing” mode is also known as the driven mode. This mode is very goal-oriented and is triggered when the mind develops a discrepancy between how things are versus how the mind wishes things to be. [1] The second main mode of mind is the “being” mode. “Being” mode, is not focused on achieving specific goals, instead the emphasis is on “accepting and allowing what is,” without any immediate pressure to change it. [2]

Based on Barnard and Teasdale’s (1991) model, mental health is related to an individual’s ability to disengage from one mode or to easily move among the modes of mind. Therefore, individuals that are able to flexibly move between the modes of mind based on the conditions in the environment are in the most favorable state. The ICS model theorizes that the “being” mode is the most likely mode of mind that will lead to lasting emotional changes. Therefore for prevention of relapse in depression, cognitive therapy must promote this mode. This led Teasdale to the creation of MBCT (Mindfulness-based cognitive therapy), which promotes the “being” mode. [3]

The idea is that in the "doing" mode someone is trying to get to a better state. Therefore tension is caused and they are likely to spiral back downward into a depression. If someone is in the "being" mode they let their negative thoughts flow and ignore the negative state. That way they can pass out of it easily.

I this that this theory behind MBCT is very interesting in terms of how emotion and cognition interact. If you think about it, your emotional state of being upset about something is driving you to be in a state that is seeking out an answer. I think this method of therapy is basically just telling the person to say to themselves, "its ok, i don't need to react to my feeling upset, I can let this feeling and the unwelcome thoughts it generates or wants to generate pass".

But is that the full mystery behind what is going on when your mind enters one of these states? Each of these states is responsible for your way of thinking and feeling

1. Segal, Z., Teasdale, J., Williams, M. (2002). Mindfulness-Based Cognitive Therapy for Depression. New York: Guilford Press.
2. Segal, Z., Teasdale, J., Williams, M. (2002). Mindfulness-Based Cognitive Therapy for Depression. New York: Guilford Press. p.73
3. Herbert, James D., and Evan M. Forman. Acceptance and Mindfulness in Cognitive Behavior Therapy: Understanding and Applying New Theories. Hoboken: John Wiley + Sons, 2011. Print.

while you are in them, everything you feel and think in these states is being influenced by you either being upset, or just "being" and letting the thing pass you by.

It seems to me like there are an endless number of other different "modes" someone can be in. They can be in a mode where they just want sex, for example. Is this just a different way of acting? It isn't. When someone is in a different mode, they want something, their feelings and their entire state is different, it is like they are a different person (for example 'bitch' mode).

So I guess then a different mode could be characterized by what happens in this mode. There are thoughts and attitudes that are characteristic of each mode. It is almost like a different personality, maybe sometimes someone acts nice, and in this mode they are really very different. But surely there are more modes than that.

I would say that there is a mode where you expect pleasure from other people. There is a mode where you are abusive, etc. Your attitude can change in many ways, and, in each of these ways, you are really in a different "mode" or are a slightly different person.

This is really a social thing then - you can be in a nice or mean mode, a mode where you are getting along with the people around you in a certain way. When someone is in the 'driven' mode of MBCT the person wants to satisfy whatever it is they are upset about. My point is that is just one mode of many different modes that a person can enter. People want satisfaction in other ways, maybe it is just in this mode that you are in a more extreme state such that it is directing your thoughts and feelings it is so powerful.

Emotion is powerful - these 'modes' are so powerful that they direct and influence your thoughts, feelings and behaviors. Emotion causes people to do things they didn't think about all of the time. Emotion itself communicates information - if you are in this emotional state, you are being informed by your emotions that you feel that way, so you might learn why you might be feeling that way.

You could say that the unique feeling of each emotion communicates a unique understanding. Some emotions are so strong they make you go crazy and you really are in a different mode. I think this shows how emotion influences your thinking. People are motivated by their emotions, they think differently because in these modes, when they are experiencing different emotions, they want different different things, their desires and preferences are different for that short, emotional, possibly moody time period.

So in the "being" mode it is like you are just being, and letting the emotional power flow through you instead of having it control you and influence your thoughts and feelings and behaviors. You are not driven, you are simply being.

Chapter 16 What is Thinking - or as Scientists name it - 'Cognition'?

- In science, cognition is a group of mental processes that includes attention, memory, producing and understanding language, solving problems, and making decisions. Cognition is studied in various disciplines such as psychology, philosophy, linguistics, science and computer science. The term's usage varies in different disciplines; for example in psychology and cognitive science, it usually refers to an information processing view of an individual's psychological functions. It is also used in a branch of social psychology called social cognition to explain attitudes, attribution, and groups dynamics. [1]

There are various things people can do mentally that have been labeled as aspects of cognition such as processes like memory, association, concept formation, pattern recognition, language, attention, perception, action, problem solving and mental imagery. Traditionally, emotion was not thought of as a cognitive process.

Most of those seem obvious - it is clear how memory functions, you simply bring up a memory. Well, you might need to be in the right emotional state in order to bring up the proper memory. Sometimes certain memories are easier to recall than at other times, this is probably because you were thinking of closely associated things that helped you to recall the similar memory. Sometimes people might need to spend some time trying to pull up a memory.

Actually, now that I think about it, you could probably go into great detail describing how memory functions - however on the surface and for the most part it is simple and easily understood. People use their memories all of the time, so in a way everyone understands how memory works.

However, when you think anything aspects of memory are probably used because it is related to what you did earlier that day. When you say 'hi' to someone, or do anything really, you use your memory to compare that event to previous events in your life or earlier that day. Your mind is like a computer, there are lots of things it is comparing and contrasting all of the time.

How does this process work? It probably works emotionally as well as intellectually. Your emotions help you bring up other similarly emotional memories and associated thoughts. Each emotion means something - it has a symbolic representation like saying hi brings up the emotion for people or the idea you have of people in your mind.

But the interesting thing is how memory or thought relates to mental imagery. I said that emotion can be used to compare different thoughts and memories, but is mental imagery also involved there? There are going to be mental images associated with memories, thoughts and emotions. Therefore your mind is really comparing and

1. Retrieved from http://en.wikipedia.org/wiki/Cognition 9/8/2012

contrasting lots of different thoughts, sensations, images, memories, and feelings all of the time.

An image means something. This is obvious if you think about art. People can 'think' visually basically. People can also think with their emotions, as it is clear that emotion can be informative. A thought could be of an event, a memory, a group of related ideas, a group of not related ideas, an emotion. How could a thought be of an emotion? All emotions mean something, a thought that is of an emotion is just then an emotion with special significance that you have drawn more attention to in the form of a thought.

So a conscious thought is something that is clear to you. An unconscious thought is something that simply means something to you - it could be anything really. Anything that communicates information to your mind. Thought is really then informative, and the function of emotion then is simply to experience feeling.

But what kinds of information does thought communicate? It can communicate visual information, mathematical information, emotional information, various ideas and concepts, sensations, experiences, physical feelings and actions, mental feelings and actions, sounds - everything there is in existence that your mind can understand.

Chapter 17 Some Points on Emotion Theory

- There are two types of observations in emotion theory, one type is general common observations (such as sex is good for someones emotional health) and the other type is functional observations (when an emotion stops at one second and another one takes its place, what is happening there, what are the emotions, why do they stop and start, etc (for example, if someone thinks a happy thought it might stop the negative thought completely) also, what are the degrees to which the emotion or thought is felt, is it completely gone etc.
- Emotions stop and start all the time, this stopping and starting might occur as sudden transitions or slow transitions, one emotion gradually fading into the other. That is not a complete explanation for how emotion functions, however. Humans would probably have several emotions occurring at one time, each emotion interacting with one or more other emotions and potentially causing them to stop, start, fade or increase.
- For instance, the emotions hate, love, painful emotions, sexual emotions, hopeful emotions, and humorous emotions are probably all constantly interacting with each other and being felt to some degree all the time. Those are only a few of the emotions/feelings that are probably felt a lot everyday.
- There are going to be observable patterns that occur with those emotions, for instance pleasure might relieve pain and make painful feeling go away.
- Life is intense and ongoing, so therefore intense emotion is probably maintained in humans all the time. These emotions might stop and start, someone could go from brief periods of intensity to periods of low intensity, but the point is there is that intensity that is felt and the continuous flow of emotional processing is ongoing.
- There are different emotional states that can change your outlook on life or how you might respond to a situation. Fear, anger, kindness and admiration are all emotional states that change how you might respond to events. You can also be in a state of readiness for certain emotions, you could be prepared to experience pain or pleasure or be in one of those states.
- Emotions are experienced consciously and unconsciously, the extent to which someone clearly feels an emotion is the extent to which it is conscious. If an emotion is being experienced but isn't under the awareness of the person experiencing it, by definition it is mostly an unconscious emotion because they are not conscious of it. Someone can experience a large emotion but that doesn't necessarily mean that the emotion is going to be completely under the awareness of the person experiencing it. They might describe the emotion as feeling like it is very large, but they might not be in touch with it (making it mostly unconscious). It is in this world of "seemingly larger emotions" that emotional processing takes place. Unconsciously there are many more emotions experienced than you are completely aware of that are being experienced. Therefor it is there, in the

unconscious mind, that emotions interact in great depth and complexity, barely being felt consciously at times and with the person possibly only slightly aware that something emotional might be going on (unconsciously).

- Emotion is experienced differently for each person. An emotion evokes a certain emotional response in a person because that person is who they are, however we all share the same world and there are going to be significant psychological things in it that are generally considered to be significant by most people, such as death or love. Any individual has peculiarities and specifics about what might trigger a large emotional response, it wouldn't necessarily just be something that they "like a lot" but mostly things they consciously or unconsciously find to be significant.
- When emotion can stop and start, and there can be periods of intensity and low-intensity, it makes one wonder just how many different emotional states there are. For every mood in a social situation you could say is an emotional state. If there is a certain mood present, then the people are going to be feeling certain things and responding in a way that is correspondent to that mood. But that is just social moods, there are many other ways people's emotional state can change, if you are working on something you enjoy working on you could be in a certain emotional state for that.
- An emotional state implies a certain set of feelings that come up with a certain activity or under certain circumstances.
- An important observation to note in emotion theory is that pain can stop the current flow of emotion or feeling and alert the person. Pain and anxiety are different from the other emotions because they are unpleasant. How often is an emotion like hope or fun tainted by the emotion of pain? Is fun even an emotion or is it an emotional state? Fun would imply that you are experiencing a set of emotions that makes that circumstance fun, joy is an emotion, "fun" is more of an emotional state.
- The flow of someone's feelings can stop suddenly, for instance, say you are relaxing in bed after waking up, then your alarm clock goes off - you went from feeling happy, relaxed emotions to those suddenly ending. Emotions and feelings stop and start like this all the time. In a conversation, for example, someone could be happy and the other person could show or adopt a negative expression and that could suddenly end the other persons happiness. There are many emotions someone could adopt in a conversation such as shyness, or an emotion expressing a thought or an idea, and these emotions could influence (or start and stop) emotions that the other person is experiencing. It should be clear that the many emotions someone experiences throughout the day changes all the time, stops, starts, transitions, and changes in complicated ways all the time. These changes may or may not be observed, however if you pay attention to these feelings and their behavior you could certainly notice a lot more.
- Emotion can motivate thought. People go into different states or 'modes' where they are driven to think a certain type of thought or do a certain type of behavior. When someone enters a different mode, such as a pleasure seeking mode, that mode in particular is motivated by emotion. It is clear that with pleasure someone is feeling more, so you would say that it is motivated by emotion. However, every state someone is in, every different subtle social emotional state or emotional state when someone is doing work is going to have some emotion or set of

feelings behind it. But it isn't just a set of feelings, the feeling is unique each time, and this uniqueness communicates certain information that is also unique. The feeling tells you what you like and what you don't like, that would probably be the primary emotions (pleasure and pain). But each other emotion communicates something - if you feel guilty you know what that feeling means, maybe that feeling in combination with other feelings is communicating something different or unique based upon the set of feelings it is and what it means in that context.

- Therefore someone could enter into a mode such as an abusive mode, where, emotionally, they are being abusive. It makes sense that since this is a mode, it takes a reasonable period of time to experience. It isn't an expression or a gesture, which takes a couple of seconds, but a mode like this my guess would be at least a few minutes long. Another mode could be a humorous mode. Maybe that is clear by the person being observed as being amused - but maybe emotionally they are amused for a certain period of time before and after your observation of them being that way.
- That isn't to say that someone couldn't experience amused feelings for a few seconds. Clearly when someone laughs the feelings mostly only last for the period of the laughter. But they would probably still be amused for a period afterwards. You just laughed - and you become happy or amused for a short period after that. My point about the modes is that there are certain powerful sets of feelings that last for a while - like a pleasure seeking set of feelings. That is different from laughter or amusement, this is a strong specific mode that brings up a set of feelings for someone. Maybe someone else has a different sort of mode - maybe they have a strong mode where they feel guilty, and they have a unique set of feelings and thoughts that are with this mode.
- Some of these modes might be a reflective mode, where you are in period that is reminiscent of the activity you were just doing. Other modes might be powerful ones, abusive ones, submissive or dominant ones, calm ones. It is as if someone gets in a 'mood' for these modes. Moods are more quiet however, and there are only a few moods that people recognize. However, there could be many different unique moods as well. What then is the difference between a mood and a mode? In a mood you have different emotions, maybe someone gets in an abusive mood. That would be like getting in an abusive mode. I think it is just a matter of how strong the mood or mode is. Moods are probably less strong than modes, and modes are also ways of acting, not just ways of feeling. In a mode the emotions are so strong that they influence your behavior - the emotion motivates thought.
- One emotion can lead or transition into another emotion. For instance, someone can rage, then become angry instead of being in a rage over a certain thing, and then the emotion could die to down to the person just being hateful at whatever the cause is. That is similar to if someone is punched, they might be at first angry, then upset, and then depressed or sad. Anger can lead to hate, or 'being upset' - and then after that the emotion might transition into sadness or whatever might follow someone being hateful. Maybe the lesser emotion of hate is bitterness. So they would go from being hateful to being bitter. Or maybe if someone is talking to them positively, they could go from being hateful to being happy or optimistic.

17.1 An explanation for this chapter:

An emotional state is a very complicated thing. If someone knew completely their emotional state, they would know everything they were feeling right then. Then they wouldn't really have any "unconscious" emotions, because they would be perfectly conscious of what they were feeling. But then again, it is impossible to feel the full force of all your feelings at once, so it is not possible to be completely conscious of all your feelings. Your unconscious feelings must be dimmed down, or only large in a way that isn't completely conscious. Like you know you have a large emotion, but aren't in touch with it.

Emotional states are complicated, it would be easy to say, "my emotional state right now is really messed up" because that is what emotional states are like, people have several emotions they are experiencing all the time, it is just hard to identify that this is occurring because I would say that people can only identify when they have a large, clear emotion that they can understand.

Chapter 18 Personality and Interpersonal Behavior

Robert Freed Bales identified a number of personality dispositions and their corresponding interpersonal behaviors in his book "Personality and Interpersonal Behavior":

Toward material success and power

- The member located in the upward part of the group space by his fellow members seems active, talkative, and powerful, but not clearly either friendly or unfriendly. He is neither clearly value- or task- oriented, nor is he expressively oriented against the task. In the realization of his own values he seems to be trying to move toward material success and power. "Our modern industrial and scientific developments are signs of a greater degree of success than that attained by any previous society." "There are no limits to what science may eventually discover." "Let no one say that money is of secondary value-it is the measuring stick of scientific, artistic, moral and all other values in a society."

This type of person overestimates himself and his powers, and is likely to see himself as valuable for the other group members. He is not likely to contribute positive feeling to the group. He probably wants the other group members to be resentful of him, probably due to his over valuation of money and power. He probably ignores negative reactions to himself, seeing himself as much better than he actually is.

Toward Social Success

- The member located in the upward-positive part of the group space by his fellow members seems to be socially and sexually extroverted, ascendant but at the same time open and friendly. He encourages others to interact to express themselves and give their opinions, but he is neither clearly for the group task nor against it. In the realization of his own values he seems to be trying to move toward social success and popularity. "The most important thing in any group is to maintain a happy, friendly atmosphere, and let efficiency take care of itself." "Cooperation is far more enjoyable and more desirable than competition." "There are always plenty of people who are eager in to extend a helping hand."

This member has an over-expanded image of himself and his social success and importance in the group. He is personally involved, and he and the other group members know it. He rates himself as warm and personal and sees himself as understanding - at the same time he is the person most likely to rate others highly on understanding. He tends to take a position of receptive leadership vis-a-vis others in the group; individuals frequently respond to him and address their ideas to him, and he does not try to "talk them down."

Chapter 19 Emotions and Feelings and How to Change Them

Emotion is more similar to conscious thought than feelings are to conscious thought. Although emotion and feeling can be described as unconscious thought, one of them is going to be more similar to conscious thought. Feelings are more like sensations, when you touch something you get a feeling. Therefore feelings are faster than emotions and thought, because when you touch something there is a slight delay before you can think of something about it (thought), or feel something deeply about it (emotion). Emotion is therefore just unconscious thought. Actually it would better be described as unconscious feeling (so a feeling is like a conscious emotion because you can "feel" it better and easier but emotion is a deeper, more unconscious experience similar to unconscious thought, but emotions are also more similar to conscious thought because thought is a deep experience while feelings are intense or shallow, but not deep).

One definition of emotion can be "any strong feeling". From that description many conclusions can be drawn. Basic (or primary) emotions can be made up of secondary emotions like love can contain feelings or emotions of lust, love and longing. Feelings can be described in more detail than emotions because you can have a specific feeling for anything, each feeling is unique and might not have a name. For instance, if you are upset by one person that might have its own feeling because that person upsets you in a certain way. That feeling doesn't have a defined name because it is your personal feeling. The feeling may also be an emotion, say anger. "Upset" is probably too weak to be an emotion, but that doesn't mean that it isn't strong like emotions are strong in certain ways. Cold is also just a feeling. There is a large overlap between how feelings feel and how emotions feel, they are similar in nature. So there are only a few defined emotions, but there are an infinite number ways of feeling things. You can have a "small" emotion of hate and you could say that you have the feeling hate then, if it is large you could say you are being emotional about hate, or are experiencing the emotion hate. You can have the same emotion of hate in different situations, but each time the feeling is going to be at least slightly different.

You can recognize any feeling, that is what makes it a feeling. If you are sad that is a feeling, but if you are depressed that isn’t a feeling it is more like an emotion. You can’t identify why you are depressed but you can usually identify why you are sad. Feelings are more immediate, if something happens or is happening, it is going to result in a feeling. However, if something happened a long time ago, you are going to think about it unconsciously and that is going to bring up unconscious feelings. Otherwise known as emotion. So emotions are unconscious feelings that are the result of unconscious thoughts. Feeling defined there as something you can identify. So you can’t identify the unconscious thought that caused the unconscious feeling, but you can identify the unconscious feeling (aka emotion).

Another aspect of unconscious thought, emotion, or unconscious feeling (all three are the same) is that it tends to be mixed into the rest of your system because it is unconscious. If it was conscious then it remains as an individual feeling, but in its unconscious form you confuse it with the other emotions and feelings and it affects your entire system. So therefore most of what people are feeling is just a mix of feelings that your mind cannot separate out individually. That is the difference between sadness and a depression, a depression lowers your mood and affects all your feelings and emotions, but sadness is just that individual feeling. So the reason that the depression affects all your other feelings is because you can no longer recognize the individual sad emotions that caused it. The feelings become mixed. If someone can identify the reason they are sad then they become no longer depressed, just sad. Once they forget that that was the reason they are depressed however, they will become depressed again.

That is why an initial event might make someone sad, and then that sadness would later lead into a depression, is because you forget why you originally got sad. You might not consciously forget, but unconsciously you do. That is, it feels like you forget, the desire to get revenge on whatever caused the sadness fades away. When that happens it is like you “forgetting” what caused it. You may also consciously forget but what matters is how much you care about that sadness. It might be that consciously understanding why you are depressed or sad changes how much you care about your sadness, however. That would therefore change the emotion/feeling of sadness. The more you care about the sadness/ depression, the more like a feeling it becomes and less like an emotion. That is because the difference between feelings and emotions is that feelings are easier to identify (because you can “feel” them easier).

The following is a good example of the transition from caring about a feeling to not caring about a feeling. Anger as an emotion takes more energy to maintain, so if someone is punched or something, they are only likely to be mad for a brief period of time, but the sadness that it incurred might last for a much longer time. That sadness is only going to be recognizable to the person punched for a brief period of time as attributable to the person who did the punching, after that the sadness would sink into their system like a miniature depression. Affecting the other parts of their system like a depression.

In review, both feelings and emotions are composed of unconscious thoughts, but feelings are easier to identify than emotions. Feelings are faster than emotions in terms of response (the response time of the feeling, how fast it responds to real world stimulation) and it takes someone less time to recognize feelings because they are faster. Feelings are closer to sensory stimulation, if you touch something, you feel it and that is a fast reaction. You care about the feeling so you can separate it out in your head from the other feelings. “You care” in that sentence could be translated into, the feeling is intense, so you feel it and can identify it easily. That is different from consciously understanding why you are depressed or sad. You can consciously understand why you are depressed or sad, but that might or might not affect the intensity of that sadness.

If the intensity of the sadness is brought up enough, then you can feel that sadness and it isn’t like a depression anymore, it is more like an individual feeling then something that affects your mood and brings your system down (aka a depression).

Also, if you clearly enough understand what the sadness is then it is going to remain a sadness and not affect the rest of your system. That is because the feeling would get mixed in with the other feelings and start affecting them. The period of this more clear understanding of the sadness mostly occurs right after the event that caused the sadness. That is because it is clear to you what it is. Afterwards the sadness might emerge (or translate from a depression, to sadness) occasionally if you think about what caused it or just think about it in general.

The difference between emotion and feeling is that feelings are easier to identify because they are faster, a feeling is something you are feeling right then. An emotion might be a deeper experience because it might affect more of you, but that is only because it is mixed into the rest of your system. That is, a depression affects more of you than just an isolated feeling of sadness. In other words, people can only have a few feelings at a time, but they can have many emotions at the same time. Emotions are mixed in, but to feel something you have to be able to identify what it is, or it is going to be so intense that you would be able to identify what it is. Emotions just feel deeper because it is all your feelings being affected at once.

Since emotion is all your feelings being affected at once, emotions are stronger than feelings. Feelings however are a more directed focus. When you feel something you can always identify what that one thing is. When you have an emotion, the emotion is more distant, but stronger. All your feelings must feel a certain way about whatever is causing the emotion. So that one thing is affecting your entire system. Feelings can then be defined as immediate unconscious thought, and emotions as unconscious thought.

- When you care about an emotion, you could say that you have a higher attention for emotion or that emotional event during that time. You are probably going to be in a higher state of action readiness, that is, you are probably more alert and going to be able to respond faster to whatever it is you are focusing on, or just respond faster in general. You also are going to have a better understanding of the emotion if you care about it more - you make an assessment of the emotions strength and its nature when you think about the emotion (or the event that generated the emotion).
- Feelings are more direct than emotions and thought because they are more sensory – when you touch something you get a feeling. That shows further how emotions are really about things in the real world, only it more like you are thinking about them instead of feeling them in real time. Things that come from memory are going to be emotions and/or thoughts, not feelings because feelings are things which are more tangible, those memories might result in new feelings, but the memories themselves are not feelings because they are just thoughts. That shows how you can feel some things more than others, that thought and feeling are indeed separate and intelligence is sometimes driven by feelings and emotions, and sometimes it isn't. You can think about things and not have feelings guiding those thoughts Or your feelings could be assisting your thoughts.
- If you care about a feeling then it becomes easier to identify it – that shows how your feelings can help you to identify other feelings, so your emotions contribute to your emotional intelligence.

- If a certain emotion is larger than others then to your intellect it is going to be easier to recognize, and easier to think about (that is why a depression feels like it does, because you don’t know the individual emotions contributing to it so you cannot feel a specific emotion of sadness from it.

An explanation for this chapter:

So feelings are easier to "feel" than emotions, that is probably why they are called feelings, because you "feel" them better. Maybe someone else thinks you can feel emotions easier, I don't know, the point is you can feel emotions and feelings with different levels of intensity and in more than one way, a feeling could be not intense but clear to you. So how conscious you are of the feeling or emotion influences the intensity of it and your conscious experience of it. A feeling could be more intense than an emotion if it is the only thing you are feeling as well. That makes sense, if an emotion is very complicated, then you probably couldn't feel the entire thing as clearly in a brief period of time. So my theory is that feelings are more simple, and therefore there are more shallow but possibly more intense than emotion because you can focus on a simple thing easier.

If you are having a deep emotional experience (experiencing an emotion) then it makes sense that you aren't as in touch with all of those feelings that are occurring. When you touch something you get the feeling "cold" - that is simple to understand. When you are in a depression you don't understand all the complicated emotions that you are experiencing. You could experience sadness all day. When you can say "oh, I really "felt" that", then you know you feel it and it is a feeling. When you feel something, it is a feeling. When you are emotional about something, those are feelings too, but it is more powerful and deeper, you aren't as in touch will all of it because it is more complex. You could be in touch with something complex and feel that too, I guess. Though I would argue that a feeling is easier to focus on if it is simple and clear to understand and feel to your conscious mind.

The significance of this chapter:

If someone is emotional, then they are feeling a lot. I could say that the emotions someone is experiencing could be brought up at different times and felt more - translated from somewhere in your strong emotions to something you feel more closely. So you can feel some things but that doesn't mean that the feeling is intense or clear - those things might become clear however at some point.

When those emotions become clear and you 'bring them up' - either by caring about the emotion or the thought that represents it or it just emerges by some other method (such as by doing an evaluation of your emotional state) - then they become feelings because you can feel them easier. These feelings are more clear, similar to when you touch something you get a feeling that is simple and tactile. That is why feelings are called the result of emotions, because emotions are like the basis for feelings (at least non-tactile ones). You might have a feeling that has a shallow source however as well I would say. It doesn't have to be that a feeling is first felt deeply, and then you feel it more clearly later on (the feeling being the result of an emotion). Maybe the feeling is simple at first and then it becomes more complex later.

What role does attention have to play? Being emotional or feeling something can make you pay more or less attention to things, including other feelings. Your attention can naturally rise just because of your emotional state.

People feel emotions, and they can feel feelings. Emotions are strong and the powerful source of human behavior, and while feelings are also powerful they are also diverse, curious, and unique - 'old feelings returning'.

19.1 How to Change Emotions and Feelings

An appraisal is when you assess something. People make appraisals or assessments of emotion all of the time, however they aren't aware most of the time that they are doing this. How much someone cares about an emotional stimulus is something that is probably thought about frequently during the experience. If you think about it people frequently are going to naturally analyze what is going on in every situation they are in and think about what the emotions occurring are.

I said in the previous paragraph that people make appraisals of emotional things but they aren't aware of themselves doing that. How is that possible or what does that mean exactly? If people care about emotion, which they clearly do, then they are going to want to know what is going on in the situations they encounter in life. So clearly people make assessments of how much emotion the things around them are generating, the only question is can they do this in a way that is beneath their awareness.

People surely must make assessments since they often work on inducing or inhibiting feelings in order to make them "appropriate" to a situation. If you are going to be changing feeling, then obviously you are going to need to measure and assess it first. Sometimes people think this process through consciously, and sometimes they don't.

It makes sense to me that people are going to "know" how valuable certain things in their environment are. This is clear when you realize that people focus on some things very quickly - such a thing would clearly be something of interest to that person or something that generates emotion - which would make it interesting.

So you could say that a person whose attention gets alerted to something around them made an assessment about the stimulus or responded to it, the stimulus (the thing in their environment they paid sharp attention to) was clearly emotional for them. It could have generated any feeling - disgust, surprise, happiness, - or maybe an intellectual reaction such as 'that person has a bright coat'.

Does that mean that the person assessed if the bright coat generated emotion for them? What would it mean if it generated emotion? Could they respond in a fast way without being interested? Someone could respond quickly to something and not be in a mood that is very caring at that time, in which case maybe little emotion was involved. However if someone was interested in something then it makes sense that it is going to cause them to have feelings.

Is something someone is interested in going to cause them to have deep emotions or shallow feelings? What types of stimuli result in deep or shallow feelings? Just because something generates more emotion for you doesn't necessarily mean that it is going to cause you to respond to it faster or you would be more interested in it. Maybe your interest is more intellectual or maybe you are interested or responding to it quickly because you have to.

Under what circumstances do people care more about feelings? This relates to appraisals - if you care about something then you are going to make more assessments during the experience about how much emotion is being generated probably. People can care more about feelings but that doesn't mean that they are aware that they care more during that time. This is similar to people going into modes where they are seeking pleasure. My theory here is that people have levels of desire and need that fluctuate constantly.

This means that there are many different levels someone can experience an emotion or feeling. It is more complicated than simply saying that the feeling has a certain strength - each feeling or emotion is going to have a unique nature, represent unique ideas and objects, and have a unique significance on your psyche.

Maybe you can say that there are shallow feelings and deep emotions, and that there are certain properties that shallow feelings have and certain properties that deep feelings have. For instance you probably care more about deep feelings (unless the feeling is negative) and therefore they probably cause you to have a faster reaction time. However if the feeling is deep, sappy, and emotional then maybe your reaction time is slower because the emotion is weighing you down.

This relates to the 'emotions and feelings and the difference between them' section above because I am outlining further that deep feelings/emotions or shallow feelings/ emotions are different and things happen to humans differently with each one. It shows that clearly emotion can make someone be different physically, as when you are motivated by emotion you often move faster.

This is just bringing up ideas of depth - some feelings are simple and some are complex - that is obvious, however I think people could notice a lot more if they grouped their emotions into a categories of strength and shallowness or depth and how they responded differently to each different category. - Also the person should note what the interest was, the reaction time, the negative or positive valence of the emotion.

Goffman suggests that we spend a good deal of effort on managing impressions - that is, acting. Your impression of other people makes you feel in different ways, and you try to manage this in a social situation. So therefore all of your strong feelings you try to influence by thinking about what caused those feelings - such as your impressions - and how you can change them.

So people are basically "emotion-managers", constantly thinking about their feelings and what caused them and how they can change them. Whenever you change an impression of someone, you are also changing your feelings. When you think about your own feelings you are changing them because you are changing how much you

care about them. You set goals for yourself about your own feelings - 'if I do this I am going to become happy'.

When you think about your feelings you can make insignificant feelings large or large feelings small. When a feeling is small, you could say that it is more unconscious or beneath your awareness. Something (including yourself) could trigger this small feeling and it could emerge into something you feel more closely and more consciously.

So the question is, what circumstances and what type of thinking warrant that feeling of 'that sort'.

We assess the 'appropriateness' of a feeling by making a comparison between the feeling and the situation. We also have goals for how we want to feel that we don't know we are thinking, and we have goals for how we want to act as well. Is there a 'natural attitude' or a natural way of behaving and thinking? Not really - especially when you consider that you are unconsciously constantly creating goals, drives, thoughts and behaviors that are not fully under your control.

- In *secondary reactive emotions*, the person reacts against his or her initial primary adaptive emotion, so that it is replaced with a secondary emotion. This "reaction to the reaction" obscures or transforms the original emotion and leads to actions that are not entirely appropriate to the current situation. For example, a man that encounters danger and begins to feel fear may feel that fear is not "manly." He may then either become angry at the danger (externally focused reaction) or angry with himself for being afraid (self-focused reaction), even when the angry behavior actually increases the danger. Listening to this reaction, someone is likely to have the sense that "something else is going on here" or "there's more to this than just anger." The experience is something like hearing two different melodies being played at the same time in a piece of music, one the main melody and the other the background or counterpart.
- Secondary emotions often arise from attempts to judge and control primary responses.
- Thus, anxiety may come from trying to avoid feeling angry or sexually excited, or it may arise from guilt about having felt these emotions.

When someone rejects what they are truly feeling, they are likely to feel bad about themselves. Feeling or expressing one emotion to mask the primary emotion is a metaemotional process. Feelings about emotions need to be acknowledged and then explored to get at the underlying primary emotion.

Experiential therapists see clients emotional processing as occurring on a continuum with five phases (Kennedy-Moore + Watson, 1999 [1]):

1. prereflective reaction to an emotion-eliciting stimulus entailing perception of the stimulus, preconscious cognitive and emotional processing, and accompanying physiological changes
2. conscious awareness and perception of the reaction

1. Kennedy-Moore, E., + Watson, J.C. (1999). *Expressingemotion: Myths,realitiesand therapeuticstrategies.*New York: Guilford Press.

3. labeling and interpretation of the affective response; people typically draw upon internal as well as situational cues to label their responses
4. evaluation of whether the response is acceptable or not
5. evaluation of the current context in terms of whether it is possible or desirable to reveal one's feelings.

What role does the emotion 'interest' play in emotional responses? It is a baseline emotion of great importance - the action tendency of interest involves intending, orienting, and exploring. Interest is felt very frequently, probably without being noticed. If you think about it, to some degree interest is going to be present with each reaction to stimuli. With every response someone has, they are interested to some degree. You can look at interest further when you consider secondary emotional responses - what was the interest that came from the response that had some other type of interest?

Through each stage of evaluation of a response, or simple evaluations that aren't a response to things, there is interest involved as well. This 'interest' induces caring, and the interest and caring is going to change your emotions - emotions are going to be brought up, intensified, changed based off of your interest or caring or evaluations. When you think and make evaluations, you change the nature and intensity of the emotions that are related to what you are doing or processing.

Are people going to be more interested in clear, primary emotions or feelings that they aren't in touch with? When someone is interested in a feeling, how is that different from being interested in the source of the feeling? If someone is feeling sad, they might not care about the sadness if the feeling is unclear to them or they don't know they are sad. If someone is going to try to change a feeling of sadness, it clearly would be beneficial if they knew when the feeling is occurring.

Is it possible to experience deep emotions without being aware at all that these emotions are occurring? Yes it is, but there are times when people are conscious of those emotions - say when they are recalling them - that the deep emotions are more clear. There could be a deep emotion that occurs over a long period of time - say anger at someone, this anger could be in your body for a long time, during being the person, or while away from the person; the point is the anger is reflected upon or it occurs more deeply at certain points - and then you are going to be aware of the emotion.

That anger is a significant, primary feeling. The feeling is significant because it shows how large the emotion is that is behind it. People can feel feelings that are shallow or intense at the time, but these feelings don't necessarily mean more than that or are deeper than that because they aren't deep or primary - they don't mean anything else or occur at other times you aren't aware of (indicating that this feeling is significant). The feeling of shallow feelings is still potent (because you are feeling them in real time), but they aren't as powerful as feelings that have a special meaning or significance for you (which would make you feel deeper in real time and feel more effected).

If you think about it, people change their feelings by thinking all of the time. The way they could help manage this is probably by making assessments of their emotional

state. If people think about what just made them happy or sad, then they might be able to do something or think something to change that. Some emotional responses are going to be more noticeable, and that is when people might try to figure out what went on.

There are subtleties of emotion as well. People probably respond in many ways that they aren't aware of consciously, but they might have responded because something beneath their notice occurred emotionally. You could say that the emotional world beneath your notice is the "unconscious" mind or the unconscious world.

Your emotions change all of the time, only sometimes are you going to notice when an emotion changes or when you are experiencing one. Furthermore, you might want or expect to experience one emotion but you are actually experiencing a different one because unconsciously that is how you are responding. For instance, maybe you have an unconscious bias against a group of people so you feel hate when you interact with them, but you consciously think that you like those people and feel like you should be happy and positive towards them. A feeling might be important to your unconscious mind, or a feeling might be important to your conscious mind - in which case you would probably 'care' about it.

Your attention is constantly divided between various things in your environment, your own internal thinking and your own emotions. Your emotions are going to determine and assist what you pay attention to. For instance, if something is emotional in your environment for you, then more of your attention is probably going to spent thinking about or focusing on that thing.

Or maybe something in your environment is just more interesting than something else, the point is something in your environment or something in your head (emotions, thoughts) caused an intellectual or emotional reaction in you, and that then caused you to pay more attention to it. That doesn't mean that you notice it more after you pay attention - this type of paying attention might be unconscious - i.e. - more of your attentional resources or just more of the focus that people have (not all of which they are aware of) is going to be directed at it.

Chapter 20 What is Reasoning Ability? - A Subjective Article Relevant to the study of Cognition and Emotion

Is reasoning ability emotional intelligence, or is it mathematical intelligence? The general answer to what is reasoning ability would just be to say ‘problem solving skills’ or ‘analytical ability’ or ‘deductive and inductive reasoning’, however how much is that really saying about what analysis is or what reasoning really is?

There are an endless different types of intellect. For each topic, category, job, etc in life there is a different type of intellect or way of analyzing the material for that subject. Is there a generic 'reasoning' ability that applies to all of these categories or does one need to be defined?

Intelligence is very subjective, so it is hard to define emotional intelligence. However, I personally have found useful various tools that help my thinking:

- Categorize the information and make lists outlining the significant phenomena.
- That means that if you are thinking about something emotional, what the significant phenomena are is going to be subjective, it might be useful to make two lists, a list with the significant subjective factors and a list with the significant objective factors.
- Then you can analyze the information and say, ‘well that is pretty subjective, I don’t know if that is true, however if I consider this and that objective factors I realize that this and that subjective factors are more like x’.

How could someone figure out how subjective vs. objective something is? Facts are theoretically objective if it is a concrete fact that isn't, well, subjective. That is what subjective means by definition - something that is subject to opinion.

So therapy is subjective. When a psychologist assesses that someone has a problem, that is subjective. How is someone supposed to know if they are overly emotional in a certain way. Bipolar is a mental condition. If someone is bipolar they experience emotional swings from extremely happy to extremely sad. Does that mean that subjectivity is just about someones ability to measure emotion?

When someone says, 'this soda tastes good' you are measuring how much emotion drinking the soda causes you. That shows that a lot of the things that people say are subjective.

So subjectivity and objectivity relate to how the mind works, and the study of cognition and emotion. When people think things that are opinions of emotional states, or opinions of how much emotion something causes them, they are changing their thinking and possibly making their thinking emotional.

Why would it matter if a thought or just the words someone used was emotional or not? Are the words people choose the primary factor behind what cognition is?

People have beliefs, attitudes, personality dispositions, goals, drives etc that all don't have to be thought about with words necessarily. Someones attitudes (along with the other unconscious processes mentioned) are going to determine what they think to a certain extent. If you have a strong unconscious attitude towards a certain type of person, this might influence what you say when you meet that person, for example.

So when someone thinks about facts, these might influence their attitudes and other subjective unconscious beliefs more or less so than when someone thinks about subjective information.

Chapter 21 An Outline of Consciousness

The internet encyclopedia of philosophy has a good entry on higher order theories of consciousness. Here [1] they reference a theory of Rosenthals:

- According to Rosenthal's higher-order thought theory (1986, 1997, 2005), a mental state is conscious when there is a higher-order thought about it. I am conscious of the pain in my knee when I have a thought to the effect that I am in that very pain state.
- ... A third important feature of higher-order thoughts on Rosenthal's account is that they are assertoric and occurrent. The higher-order thought must assert, rather than hope, fear or speculate that I am in a particular mental state. Moreover, the higher-order thought must occur at roughly the same time as the mental state it represents. The content of the higher-order thought should be, for example: "I am now feeling pain," not "I might have felt pain yesterday" or "Perhaps I will feel pain in a few minutes." Rosenthal (1997) has argued that higher-order thoughts must be occurrent in order to distinguish between non-conscious and conscious states. If the mere disposition to produce a higher-order thought were sufficient for a mental state to be conscious, it seems that all one's mental states would always be conscious.

Of course if someone has a thought about the pain they are experiencing the pain is going to be more conscious. It obviously depends on the situation if the thought makes the pain worse or less. I suppose a thought could make the pain less, but it would also make you more conscious and more aware of this lessened, (but more conscious) pain.

A model is proposed in the below image (B. Timmermans, et all), this is in the abstract of their paper:

- Metacognition is usually construed as a conscious, intentional process whereby people reflect upon their own mental activity. Here, we instead suggest that metacognition is but an instance of a larger class of representational re-description processes that we assume occur unconsciously and automatically. From this perspective, the brain continuously and unconsciously learns to anticipate the consequences of action or activity on itself, on the world and on other people through three predictive loops: an inner loop, a perception–action loop and a self–other (social cognition) loop, which together form a tangled hierarchy.

1. Higher-Order Theories of Consciousness. Internet Encyclopedia of Philosophy. Entry by Paula Droege. Retrieved from http://www.iep.utm.edu/consc-hi/ 7/2/14

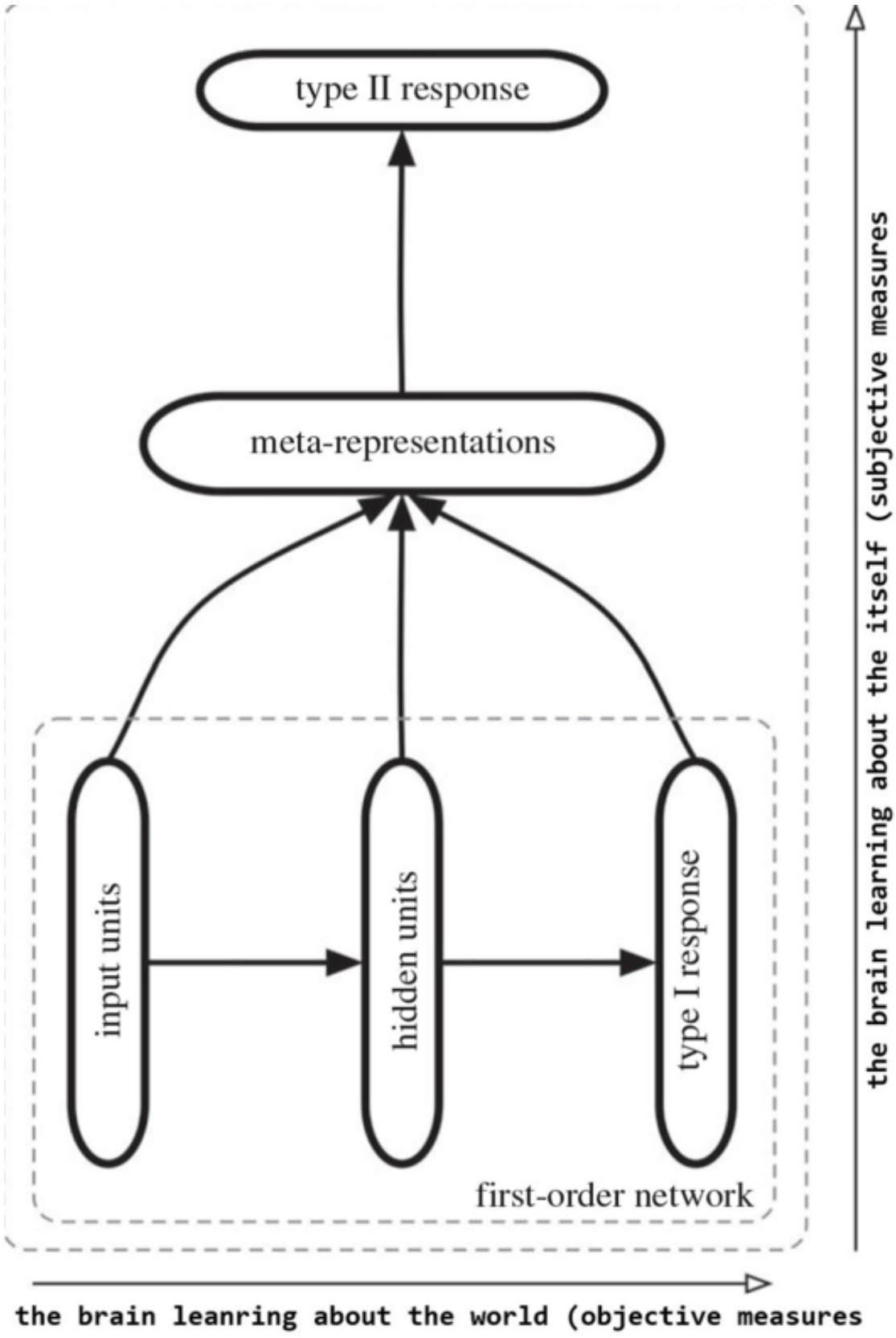

Figure 21.1 One can think of the first-order network as instantiating cases where the brain learns about the world and of the second-order (outside box) network as instantiating cases where the brain learns about itself. Reference - "Higher order thoughts in consciousness as an unconscious re-description process" Phil. Trans. R. Soc. B (2012) 367, 1412–1423 B. Timmermans, L Schilbach and A Cleeremans

My interpretation is explained a little differently from their explanation, but is still similar to theirs. The inner loop of the first order network is about the brain learning

about the world, first there is stimuli and then brain thinks about the stimuli. When the brain thinks about the stimuli it forms meta-cognitions and has a secondary response from its initial response.

The 'inner loop' or their first-order network, is basically the brain thinking about the stimulus, and part of the meta-cognition (the 'thinking about the thinking') is two other loops, a perception-action loop and a self-other loop (social cognition). This means that the brain thinks more deeply about everything a second time, basically. Two of the things that it thinks more deeply about are perceptions of actions, and general social cognitions about the self and other people.

It makes sense that the mind has different levels of thinking. There is a more simple way of thinking about the world and there is a more complicated way of thinking. When anything is thought about, there is a more simplistic way of thinking about it and a more complicated way of thinking about it. It might be that a human cannot understand the idea or whatever you are thinking about if it is too complicated, in which case the simple level of your mind would be the only level that understands it.

I would say that the lower level of mind which isn't as intelligent or sophisticated as the its higher level is the initial, more animalistic response. What does that mean for sensation versus thought, however? Is there are lower level of feeling pain and a higher level? When someones mind is in the lower mode, how would it think different from its higher mode? It would probably have its higher-level social cognitions shut off. - So it wouldn't be capable of responding intelligently to other people, etc.

Two types of consciousness

So there are two different types of consciousness - one type is awareness of physical sensations, and the other type is high-order or lower-order thought. So the mind could not be thinking clearly and not be responding intelligently to other people, and it could not be aware of the pain, pleasure (other physical sensations, etc) that it is experiencing. In that case it would be in a lower level state.

So it makes sense that pain medication would also make someone think less clearly - that is because they are in a lower physical and mental state (both physical sensations and mental thinking are dulled).

21.1 Types of Thinking

The two different levels of mind (a dulled, more simplistic level and a sophisticated, higher order thought level) mean that in each level, a person is thinking differently. How does a person think differently when they are drunk, on pain medication, or otherwise not thinking clearly vs when they are thinking clearly? Is their thinking more top-down or bottom-up?

Or I could just simply ask the question - is an animals thinking (such as a dogs) more top-down or bottom- up compared to a humans?

Does that statement make sense? A dog doesn't necessarily look at any details, so you couldn't say that dogs look at broad conclusions first and then analyze down to the detail or vice versa (top-down vs. bottom-up thinking).

I am proposing that some peoples thinking is more top-down or bottom-up in general than another persons. It isn't clear what that means exactly though. Top-down or bottom-up thinking usually refers to a specific way of analyzing something, not to how someone thinks in general. Though if you consider how someone might think if they aren't being as intelligent, it makes me wonder if they might be more abstract and reach broad, not supported by any evidence conclusions first ('top-down') and ignore details. I could say that some people do that without thinking less than they usually do as well, however.

What are the higher levels of thought that are shut off when someone can't think clearly? I mentioned before that they might not respond as intelligently to other people (social cognition). But is that the full mystery behind the differences in these levels of thinking or is more analysis necessary?

When the higher intellectual functions of a humans brain are operating less efficiently, or are more shut off, (such as when someone is drugged, drunk or on pain medication) they are less under control of their cognition. In this way they are more like lesser animals since they cannot think as well.

Maybe when people can't think as clearly they make statements that don't necessarily make sense, or aren't supported by facts. I could say that those statements are a more top-down type of thinking because they reached conclusions first without looking at the details.

Making conclusions without looking at supporting details is both related to top-down thinking and subjective thinking. If you analyze the details of an idea or argument, you are probably making it less subjective and more scientific and objective.

21.2 A Thinking Consciousness

Levels of thinking is going to be related to consciousness. If people have a hierarchy of thought and feeling, some of that is going to be conscious at different times.

Some belief someone has formed in the past or near-present could be influencing their consciousness. That would be different from an attitude influencing how someone is thinking, or their 'consciousness'.

Here I am defining consciousness as someones current state of thinking and feeling. At any moment, different beliefs, attitudes, ideas, emotions, drives, feelings etc could be influence your current state of feeling and thinking (your 'consciousness').

Since some of the ideas that people have are going to be subjective, they might be ideas that make the person more emotional. Or an idea could simply use more unconscious emotional processes, but not make the person feel any more (be more emotional) than they currently are.

Philosophers have talked about an 'inner sense' or how consciousness feels to someone. The question I want to bring up is - which mental processes influence our consciousness and in what way do they do so?

How does a belief someone has influence what they are thinking or how they are thinking? Similarly, what does having an attitude do to someones thoughts, 'thinking' or consciousness?

When you are talking to someone else, you could have an 'attitude' that they are worthless, be thinking that they are worthless and not have an attitude about it, etc.

So, obviously, attitudes are influenced by beliefs and emotions (thought and feeling).

21.3 Higher order representations

Does a humans mind make representations of the world? I would say that your minds biochemistry determines what you are going to feel when you experience anything. You see the color red, and your minds biology determines how that makes you feel, not necessarily what you are thinking about it. However, since emotions and feelings are very complex then what influences your feeling when you see the color red might be mental, psychological factors. For instance, you get mad when you see red because it reminds you of blood, or something.

The internet encyclopedia of philosophy also has a good entry on “Consciousness”. They talk about higher order representation – which is basically a person being aware of their own consciousness at any given time, or aware of anything at any given time. For instance, if I am aware of my feelings on a certain matter, then I am more conscious of that matter. That seems fairly obvious, I mean if you think about something more you are going to be more conscious of it. This relates to the two different levels of thought and feeling – the lower level is more unconscious and immediate and less under control, and the higher level of consciousness is part of conscious experience and people are more aware of because it isn’t ‘unconscious’ it is ‘conscious’. So what separates out the two different levels of consciousness is one is mostly beneath awareness and would be defined as being unconscious, and the other is largely in awareness and would be defined as being conscious. There is clearly an overlap between conscious thoughts and feelings and unconscious thoughts and feelings, however – there are degrees that someone’s awareness is ‘awake’ and ‘clear’. Have I presented here a theory of consciousness? It is obvious that there are degrees to awareness, and all I have said is that consciousness is basically a combination of feelings and thoughts - that is a rather simple explanation of consciousness. Is there more explanation that is needed in order to answer what consciousness really is?:

- As we have seen, one question that should be answered by any theory of consciousness is: What makes a mental state a conscious mental state? There is a long tradition that has attempted to understand consciousness in terms of some kind of higher-order awareness. For example, John Locke (1689/1975) once said that “consciousness is the perception of what passes in a man’s own mind.” This

> intuition has been revived by a number of philosophers (Rosenthal, 1986, 1993b, 1997, 2000, 2004, 2005; Gennaro 1996a, 2012; Armstrong, 1968, 1981; Lycan, 1996, 2001). In general, the idea is that what makes a mental state conscious is that it is the object of some kind of higher-order representation (HOR). A mental state M becomes conscious when there is a HOR of M. A HOR is a "meta-psychological" state, i.e., a mental state directed at another mental state. So, for example, my desire to write a good encyclopedia entry becomes conscious when I am (non-inferentially) "aware" of the desire. Intuitively, it seems that conscious states, as opposed to unconscious ones, are mental states that I am "aware of" in some sense. This is sometimes referred to as the Transitivity Principle. Any theory which attempts to explain consciousness in terms of higher-order states is known as a higher-order (HO) theory of consciousness. It is best initially to use the more neutral term "representation" because there are a number of different kinds of higher-order theory, depending upon how one characterizes the HOR in question. HO theories, thus, attempt to explain consciousness in mentalistic terms, that is, by reference to such notions as "thoughts" and "awareness." Conscious mental states arise when two unconscious mental states are related in a certain specific way; namely, that one of them (the HOR) is directed at the other (M). [2]

So a mental state can be unconscious or conscious. If someone is sleeping and dreaming, then their mental state would be considered to unconscious. I would say that there is a lot to say about how 'aware' someone is at any time. If someone is drugged or drunk, are they less aware of their interactions with other people? I said previously that they might not be responding as intelligently to other people. I wouldn't guess as to how exactly their cognitions or emotional response is dulled – there could be a wide range of emotional, personality and intellectual dispositions that someone could have that could be affected. That shows how awareness in general, not necessarily when someone has lower general awareness like when they are sleeping or drunk, is influenced to different degrees.

What is the difference between our unconscious awareness and our conscious awareness then? Here again is the internet encyclopedia of philosophy – they address the question of differences between HO (high order) and LO (lower-order) mental states, which I have said is basically the difference between conscious states and unconscious ones:

- A fourth important objection to HO approaches is the question of how such theories can explain cases where the HO state might misrepresent the lower-order (LO) mental state (Byrne 1997, Neander 1998, Levine 2001, Block 2011). After all, if we have a representational relation between two states, it seems possible for misrepresentation or malfunction to occur. If it does, then what explanation can be offered by the HO theorist? If my LO state registers a red percept and my HO state registers a thought about something green due, say, to some neural misfiring, then what happens? It seems that problems loom for any answer given by a HO theorist and the cause of the problem has to do with the very nature of the HO theorist's belief that there is a representational relation between the LO and HO states. For example, if the HO theorist takes the option

2. Consciousness. Internet Encyclopedia of Philosophy. Entry by Rocco J. Gennaro. Retrieved from http://www.iep.utm.edu/consciou/ 7/8/14

> that the resulting conscious experience is reddish, then it seems that the HO state plays no role in determining the qualitative character of the experience. On the other hand, if the resulting experience is greenish, then the LO state seems irrelevant. Rosenthal and Weisberg hold that the HO state determines the qualitative properties even in cases when there is no LO state at all (Rosenthal 2005, 2011, Weisberg 2008, 2011a, 2011b). Gennaro (2012) argues that no conscious experience results in such cases and wonders, for example, how a sole (unconscious) HOT can result in a conscious state at all. He argues that there must be a match, complete or partial, between the LO and HO state in order for a conscious state to exist in the first place.

The mind must have an unconscious understanding of the world and a conscious understanding of the world, and that is what accounts for differences in higher-order (conscious) and lower-order (unconscious) mental states. Or I could say that there is simply a difference between how a human responds unconsciously, and how a human responds consciously to experiences and stimuli.

What is the difference between an unconscious response and a conscious response then, however? Unconscious responses are affective - they are faster and more immediate than conscious responses. Unconscious responses are also what your brain has programmed in from previous development. Conscious responses, however, are more so under your control and thoughts can help to change a conscious response.

What if someone's conscious response differs from their unconscious response? What would be an example of that happening? All responses are unconscious unless someone tries to change their response. For example, people often try to change their feelings by inhibiting them or encouraging them.

Saying all responses are higher-order or conscious doesn't make sense, because people are constantly influenced by natural emotional processes. First comes natural unconscious responses, and if you want to change or think about your situation, you 'think' and make the response more conscious.

So basically humans have emotional and intellectual responses to experience and stimuli. It is hard to influence your emotions with thought; however people attempt to do this all the time (consciously and unconsciously).

Chapter 22 What is Logical or Rational Thinking, and how does it relate to Reasoning, Heuristics, Biases and the Rationality Debate?

There are two different types of intelligence - one type can be measured objectively (i.e. perceptual speed and memory), and the type of intellect is subjective and, although it can be measured, is still subjective. The subjective type of intellect consists of things like reasoning ability and verbal comprehension.

I stated that something like verbal comprehension is subjective; however that statement is actually a big idea (if you think about it). It is basically saying that every words definition is up for debate, or subject to opinion. That is true, however - for instance the meaning of each word for each person may be different. When someone says the word 'dog' maybe they mean to use the word as a metaphor and really mean, 'that person is like a dog' not 'that is a dog'. Maybe even when someone says 'that is a dog' they are making a subjective statement, even though it seems pretty objective. - I mean a dog has a strict definition and most people have the same thing in mind when they think of that word, therefore making its meaning rather straightforward.

My point is that different kinds of emotional understanding (which are largely things in life that are 'subjective') make up life, the words people use, and common human understanding. Therefore nothing is ever really 'objective' because it is subject to human biases. Mathematical equations are objective, however if an animal were to look at a math problem they might not understand it as being objective - they might interpret the problem to mean something else (since it wouldn't mean anything to them mathematically).

People have beliefs of various sorts. These beliefs influence their thinking and how they feel.

What else is to be said about subjective reasoning?

What else is to be said about what I have called 'subjective reasoning'? I am labeling reasoning ability as being biased and subjective in any case where emotional information is handled, which is all the time unless something is completely objective. However, nothing is completely objective because even a math problem is going to cause someone to be emotional or process it emotionally in some way. That is why I am saying that all reasoning ability is actually a sort of 'subjective reasoning'.

I mean, if you think about it, most if not all of life involves dealing with your own personal feelings - whether you are aware of it or not. Feelings are always present, they bias your decisions, and they motivate your behaviors and thoughts.

Feelings effect our lives

How is someone supposed to know when their feelings or other ideas they have (such as a belief about something) influence their decisions or thinking?

Is most of thinking emotional and biased? Or is most of the thinking people do fairly straightforward and not involve making complex (and potentially influenced by feeling) decisions?

the most emotionally relevant factor is the motivator

Goals can be changed by how motivated someone is to have that goal. Some goals can be brought into conscious awareness at various times for various reasons. Simon (1967) [1] reasoned that emotions are calls for reprioritization: that emotion regarding a goal that is out of awareness eventually induces people to give that goal a higher priority. The stronger the emotion, the stronger the claim for higher priority. Affect pulls the out-of-awareness into awareness.

Simons analysis was just referring to goals. However, if you think about it, all of someones thoughts might follow a similar logic - the logic being that the most emotionally relevant thought has the highest claim to priority.

So if someone wants something, then they are emotionally motivated to think certain things because thinking those things will generate more pleasurable emotions.

computational components underlying intelligence

What are the computational components underlying intelligence?

To begin, I ask the question - is thinking straightforward or is it complicated?

When people think, they are constantly making emotional assessments of various sorts. They think about their own motivations, i.e. how they feel about different things, and what their goals are going to be based on those motivations.

Individual thoughts also mean something emotionally. Anything someone thinks is going to be associated with different feelings and preferences.

Does this mean that thinking is simple and logical? People think all of the time, what guides their thoughts are emotional preferences that were formed from previous development or at birth.

22.1 Semantics versus Cognitive Representations

Louis Narens [2] presents the idea that there is a difference between descriptive semantics (the words people use to describe something) and cognitive representations (which is basically the image or idea your mind makes up in your head (kind of like an abstract thought)) in evaluating evidence for judgments:

1. Simon, H. A. (1967). Motivational and emotional controls of cognition. Psychology Review, 74, 29-39.
2. A New Foundation for Support Theory. (2004) Louis Narens. University of California, Irvine

- Support Theory has an empirical base of results showing that different descriptions of the same event often produce different subjective probability estimates. It explains these results in terms of subjective evaluations of supporting evidence. It assumes that events are evaluated in terms of subjective evidence invoked by their descriptions, and that the observed numerical probability judgments are the result of the combining of such evaluations of support in a manner that is consistent with a particular equation. The processes of evaluation are assumed to employ heuristics like those of Kahneman and Tversky, and because of this, are subject to the kinds of biases introduced by such heuristics.
- This article provides a New Foundation for Support Theory. The New Foundation makes a sharp distinction between semantical representations of descriptions as part of natural language processing and cognitive representations of descriptions as part of a probabilistic judgment. In particular, judgments of probability employ a complementation operation that has no counterpart in the semantics. The complementation operation is used to construct cognitive events that are employed in the computation of the estimated probability.

So when someone evaluates a piece of information, they describe it in their mind (unconsciously or unconsciously) with words. Then they probably come to a conclusion from the evidence that the description provided.

So describing something with words would be something like, "Linda is a bank teller", or "Linda is a bank teller and is active in the feminist movement" Here is the explanation from Narens:

- Kahneman and Tversky found that over 85% of participants believed it was more likely that Linda was both a bank teller and a feminist than just a bank teller. This is an example of what has become known as the conjunction fallacy. According to Kahneman and Tversky, it is due to representativeness: “bank teller and is active in the feminist movement” is more a “representative” description of Linda than just “bank teller.”

So a humans mind has the verbal description given to them in words, and then their mind forms a representation based off of what they heard (i.e. - possibly an idea of Linda in their minds).

So that means that there must be lots of words use people use to describe things, and also lots of cognitive 'ideas' or 'representations' they have in their mind that might assist these words.

So words, ideas and representations are all things a human's mind uses to think. I don't know when exactly a human mind might use words instead of abstract, non-verbal thoughts - that would be getting unnecessarily detailed into how thinking works, I would say.

22.2 So what exactly is a 'Subjective Evaluation'?

A subjective evaluation is exactly what those words describe - an assessment or evaluation of something that is biased, opinionated, and even possibly highly influenced by the persons feelings.

Subjective evaluations are important because people make them all of the time, whether or not they are aware of it. For instance anytime you see another person your mind makes an opinionated assessment of them. You might or might not be aware of your unconscious assessment - maybe you make a conscious assessment of the person that is different from your unconscious one, in which case you could feel confused about the person or something.

Since earlier in this paper I stated that everything in life is actually subjective, that means that people are constantly making subjective evaluations whenever they think about anything. Any thought about something could be subjective in some way.

If you see a photograph maybe you have an unconscious opinion of that - or even if you think about something you wouldn't typically consider to be emotional your mind could still have a strong unconscious feeling or interpretation.

22.3 How to develop a logical reasoner

The human mind (and animal minds, though the process is different) comes to conclusions by weighing evidence. This process could be done unconsciously or consciously; for instance people might make if - then statements to think about material. Part of that might be considering evidence from examples that easily come to mind (this is called the 'availability' heuristic), or examples that are harder or take longer to come to mind.

People often have a tendency to rely on the first piece of information gathered, this heuristic is called 'anchoring and adjustment' - During decision making, anchoring occurs when individuals use an initial piece of information to make subsequent judgments. People might adjust away from the anchor to get their final answer, which would be the logical thing to do; however studies show people tend rely on the first piece of information - whether it is right or not (instead of using it as evidence and explain away from it when the information is false)

So it depends on the circumstance if people try or don't try to explain (adjust) away from an incorrect piece of evidence. They might try to justify the first piece of information offered (the anchor) even though it wouldn't be the logical thing to do.

So this relates to thinking logically - when weighing evidence, people need to consider if they are being falsely influenced by information and are biasing different pieces of information in their mind. They might be biasing the first piece of information offered

'the anchor' and be relying too heavily on that instead of looking more objectively at all of the evidence.

So how exactly does the human mind weigh different pieces of information or construct an argument based off of evidence? It uses mental models to 'model' an argument, I would say. So there are different ways material or evidence can be considered by your mind, and these mental models weigh this evidence differently each time. Depending on the set of material or evidence, your mind might consider it differently (a 'mental model').

How could someone learn to reason more logically? I just explained two heuristics and how they effect thinking - by the speed and order of information made available to your mind. People bias the information they are given or don't consider it logically in many cases, but all that could be done about that to become a more logical thinker would be to be aware of your personal biases and be more reflective.

Hypothetical reasoning

What is hypothetical reasoning? It is creating imaginary worlds to test out our thinking. Here Stanovich [3] explains this type of reasoning in terms of carrying out goals, though I would say this type of thinking is critical for more complex thought as well:

- When we reason hypothetically, we create temporary models of the world and test out actions (or alternative causes) in that simulated world. In order to reason hypothetically we must, however, have one critical cognitive capability—the ability to distinguish our representations of the real world from representations of imaginary situations. For example, in considering an alternative goal state different from the one we currently have, we must be able to represent our current goal and the alternative goal and to keep straight which is which. Likewise, we need to be able to differentiate the representation of an action about to be taken from representations of potential alternative actions we are considering. But the latter must not infect the former while the mental simulation is being carried out.

If you think about it, humans must have a large imaginary world in their minds where they think and test out what they are thinking. This probably applies to everything - if you are trying to figure out which team is going to win a soccer match you might simulate the game in your head. If you are thinking about anything, you simulate the emotions, actions, behaviors, mathematical equations, or whatever it is - and this helps you think about it.

Heuristic vs. Rule-based processing

Heuristic processing is low-level, more unconscious and doesn't require as much thought as systematic processing. [4] Systematic processing requires active, careful scrutiny of relevant information and is more cognitively taxing.

3. Stanovich, K. E., + Stanovich, P. J. (2010). A framework for critical thinking, rational thinking, and intelligence. In D. Preiss + R. J. Sternberg (Eds.), Innovations in educational psychology: Perspectives on learning, teaching and human development (pp. 195-237). New York: Springer.
4. Chaiken, S. (1980). Heuristic Versus Systematic Information Processing and the Use of Source Versus Message Cues in Persuasion. Journal of Personality + Social Psychology, 39(5), 752-766. Retrieved from SocINDEX database.

Heuristic processing makes use of low-level decision rules such as 'analysts are always right' or 'statistics don't lie'. However, even though that type of processing makes use of rules, it is a lower-level processing than when rules are used by the systematic type of processing - which is more cognitive and leads to attitude change that is more enduring (because it is more conscious).

These different ways of processing are related to conscious and unconscious processing, or what is called in psychology a 'dual process theory' which provides an account of how a phenomenon can occur in two different ways, or as a result of two different processes. Often, the two processes consist of an implicit (automatic), unconscious process and an explicit (controlled), conscious process.

So rule-based processing usually refers to higher-level logic and casual inference. It follows rules, instead of merely conforming to them like how weight conforms to the law of gravity. So the unconscious could be considered to be doing its own thing, however the conscious mind actively thinks and therefore 'consciously' follows rules or thinks more about rules, more so than simply using a rule as a guideline. An example would be the rule-based decision rule example I used before to explain heuristic processing. If the rule or thought is 'analysts are always right' then your mind might unconsciously follow that when listening to an analyst and then you would believe that he or she is right. However if the process is more conscious then you might think 'well maybe this person is wrong'. The rule wouldn't be as unconscious.

Anyone could really define 'heuristic processing' as being conscious or unconscious, controlled or automatic actually. Different people have termed the processes of the conscious mind and the processes of the unconscious mind differently - these are called 'dual process' theories. Here Moshman [5] lists all the combinations of the different types of processing as possibilities:

- Central to S+W's analysis is a distinction between automatic heuristic processing (characteristic of what they call System 1) and explicit rule-based processing (characteristic of what they call System 2). I believe this dichotomy confounds two orthogonal distinctions. Specifically, the distinction between automatic and explicit processing is conceptually orthogonal to the distinction between heuristic and rule-based processing. Crossing automatic versus explicit with heuristic versus rule- based suggests four possible types of processing: (a) automatic heuristic processing (System 1), (b) automatic rule-based processing (not represented in the Stanovich/West analysis), (c) explicit heuristic processing (also not represented), and (d) explicit rule-based processing (System 2).

The two types not represented probably weren't because they don't make complete sense - rule-based processing is more conscious and controlled, so saying it is automatic would be putting it in the unconscious category - which is possible, however that is not how it is defined. Explicit heuristic processing doesn't necessarily make much sense either because heuristic processing is defined as being automatic and not cognitively taxing, however explicit or controlled processes are cognitively taxing because they are more deliberate and conscious.

5. Diversity in reasoning and rationality: Metacognitive and developmental considerations. David Moshman. Commentary in Stanovich, K. E., + West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate? Behavioral and Brain Sciences, 23, 645-665.

Conscious vs. unconscious intuitions

In the 'authors response' section of a Stanovich and West article (the same article as the previous quote (the Moshman commentary in that article) [6] the authors discuss the difference between intuitive feelings and ideas and conscious analytic analysis of people. In the article 'System 1' is more unconscious, forms intuitions, and the conscious mind then acquires these intuitions. They give the example of a statistics instructor who, though initially draws conclusions about students and infers probability about their personalities ('for whom the basic probability axioms are not transparent'), he or she eventually becomes no longer able to emphasize with them. Basically the unconscious, intuitive mind helps form our conscious understanding of people and of the probability judgments we make:

- We agree with Kahneman that some people may make more nuanced System 1 judgments than others, and that individual differences in this capability are of some importance. This is related to Teigen's point that when System 2 analytic abilities fail, well-framed intuitions may come to our assistance in narrowing the normative/descriptive gap, and the better those intuitions are the narrower the gap. But, following Reber (1992a; 1992b; 1993), we would conjecture that the variance in these System 1 abilities might well be considerably lower than the more recently evolved structures of System 2. Note, however, that this variability could become larger through the mechanism discussed above – instantiating of automatic System 1 algorithms through practice strategically initiated by System 2. Thus, some of the "well framed intuitions" referred to by Teigen may well be acquired intuitions – having their origins in capacity- intensive serial processing, yet now having the encapsulated, automatic characteristics of modular processes. Some statistics instructors, for example, become unable to empathize with their students for whom the basic probability axioms are not transparent. The instructor can no longer remember when these axioms were not primary intuitions.

It is obvious that the unconscious mind helps forms our conscious understanding. People have two ways of thinking about the world, one is unconscious and one is conscious. These two systems must interact all of the time and influence each other in different ways.

Ways of thinking

The algorithmic level of analysis of mind is the level that just analyzes the details of what is occurring - it doesn't reflect and ask 'why' questions. There are different types of thinking dispositions, or ways people think - these ways of analyzing how someone thinks can help determine if a person is thinking rationally or irrationally. Here is Stanovich + Stanovich (2010):

- The difference between the algorithmic mind and the reflective mind is captured in another well- established distinction in the measurement of individual differences—the distinction between cognitive ability and thinking dispositions.

6. Stanovich, K. E., + West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate? Behavioral and Brain Sciences, 23, 645-665.

The former are, as just mentioned, measures of the efficiency of the algorithmic mind. The latter travel under a variety of names in psychology—thinking dispositions or cognitive styles being the two most popular. Many thinking dispositions concern beliefs, belief structure and, importantly, attitudes toward forming and changing beliefs. Other thinking dispositions that have been identified concern a person's goals and goal hierarchy. Examples of some thinking dispositions that have been investigated by psychologists are: actively open-minded thinking, need for cognition (the tendency to think a lot), consideration of future consequences, need for closure, superstitious thinking, and dogmatism (Cacioppo, Petty, + Feinstein 1996; Kruglanski + Webster, 1996; Norris + Ennis, 1989; Schommer- Aikins, 2004; Stanovich, 1999, 2009; Sternberg, 2003; Sternberg + Grigorenko, 1997; Strathman, Gleicher, Boninger, + Scott Edwards, 1994).

- The literature on these types of thinking dispositions is vast and our purpose is not to review that literature here. It is only necessary to note that the types of cognitive propensities that these thinking disposition measures reflect are the tendency to collect information before making up one's mind, to seek various points of view before coming to a conclusion, to think extensively about a problem before responding, to calibrate the degree of strength of one's opinion to the degree of evidence available, to think about future consequences before taking action, to explicitly weigh pluses and minuses of situations before making a decision, and to seek nuance and avoid absolutism. In short, individual differences in thinking dispositions include assessing variation in people's goal management, epistemic values, and epistemic self-regulation—differences in the operation of reflective mind. They are all psychological characteristics that underpin rational thought and action.

So there are bunch of subjective things a human's mind does that determine how it thinks. I mean in any single situation how could someone think about their entire 'goal hierarchy' or their 'belief structure'? Does that matter if the person is open-minded? How much do you need to think about the future consequences of your actions or weigh the pluses and minuses of a situation? All of these processes are very subjective and hard to measure on standard IQ tests; however they are all 'psychological characteristics that underpin rational thought and action'.

22.4 The Nature of Reasoning

Deductive reasoning is the same as top-down reasoning, where someone looks at generalizations first and then figures out what the details of those would be.

Often it could just be a guess what the details are since you might be inferring the details instead of finding evidence.

I would say that this type of logic can apply to any type of thinking. For instance, even if I am just moving the mouse of a computer I could think of it in two ways (deductive or inductive). The deductive way of thinking would be something like 'I am moving the mouse of the computer, my arm causes it to move and those are the movements it

makes' and the inductive way would be 'these are the movements my computer mouse is making, I must be deciding to move the mouse - I am directing its movements'. With the deductive method, the idea of you came before the realization you were making detailed movements, and with the inductive method the opposite occurred.

My example is different from more obvious or straightforward examples of deductive and inductive reasoning, where it is clear what the generalization is and what the details are. I would say that it is still a good example, however, it is just more subjective. The idea 'I am moving the mouse' is the main idea, and the detail is 'the mouse is moving, those are the movements it is making'. The reason the movements of the mouse are the details is because that is where more description can be described.

That example of deductive reasoning is subjective, however. A more typical example would be one with a concretely broad idea and it would be clear that detail was inferred from it. With my example, however, you could say that the opposite is true and that the general idea is that 'the mouse is moving', and the detail is that 'I am moving the mouse' (instead of the opposite). It looks like it depends on which idea comes first. Whichever idea comes first the human mind would assess is the more generalized idea that needs to be supported. - That idea itself is significant because people could form delusions, or imagine what the details are or what the other side of the story is simply because they heard one idea first.

Things can be viewed in more than one way

A fundamental element of reasoning is that a different idea can be viewed many different ways. This is different from simply listing the significant factors - viewing something differently means changing the subjective perspective you have on something, while listing significant factors could be categorized under one perspective. Therefore the two elements of information is content and angle (subjectivity). This painting is an example - the dramatized colors change how the painting is perceived.

Figure 22.1 A modified painting Wc Piguenit - An Australian mangrove, ebb tide (modified by Mark Pettinelli) Notice how the dramatized colors change the nature of the painting.

All art is subjective

All of art is subjective, actually since it is highly dependent on subjective opinions. This doesn't mean that art isn't scientific and conveys information, however. Notice how in the image below there are obscure, abstract patterns yet the detail works together to convey more complex patterns and images.

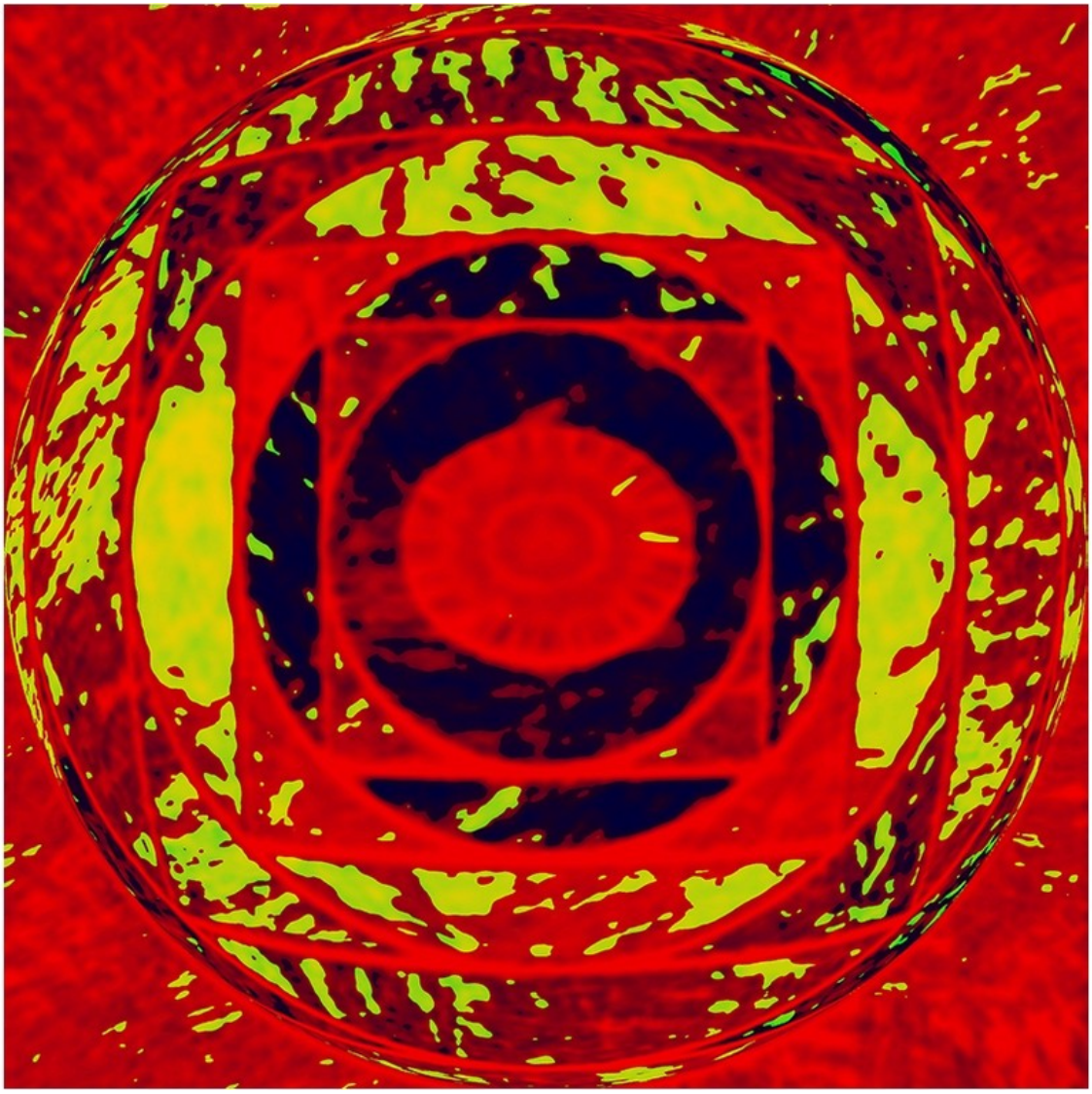

Figure 22.2 Abstract art inverted eye by Mark Pettinelli Notice how abstract yet detailed this image is.