

9 Curiosity

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9 Trailer: Curiosity, an overview

How are you feeling? Do people really want to know? And do you even know?

Curiosity is the urge to ask questions like *How are you feeling?* Getting to know and maintaining strong connections between people may be a type of curiosity with survival benefits for the individual and the group.

Problem solving may be another benefit of curiosity. Persisting with a task and seeking out further challenges are also associated with more curiosity. Intrinsic motivation is an internal urge to continue working or exploring just a little further and includes curiosity. Extrinsic motivation is an external reason to work such as a paycheck or school grade or some sort of negative repercussions. Both are included in the main section and bonus section which also includes types of curiosity and how knowing that about a consumer may be useful for product and software design for the consumer.

Is curiosity even an emotion and what is an emotion anyway?

That turns out to be a big topic, the short answer is that an emotion is a combination of physical feelings, situational context and personal history/memories/thoughts, and curiosity is considered an epistemic emotion. Epistemic means relating to knowledge or the gathering or validation of information or ideas. Epistemic emotions are less physically based than feelings like fear or hunger, and are more based on personal thoughts. ([3](#), [4](#), [12](#), [14](#))

A quote: “Various affective phenomena —e.g. intellectual courage, astonishment, curiosity, interest, wonder, surprise, the feeling of certainty, the feeling of doubt, the fear of the unknown, *misology* (which is the distrust or hatred of reason or reasoning), the joy of verification, [and] the feeling of knowing 2 — have been labelled “epistemic (or cognitive 3) emotions (or feelings 4)”.5” (3)

Having more curiosity, questioning life, may lead to more knowledge about life or about oneself, and it may help with problem solving.

The value of curiosity may include increased self knowledge and greater wisdom over time. This is discussed in both the main and bonus sections. Evaluation methods - questions to ask about a person’s level of curiosity are included in the bonus section. The T.E.A. method - suggests considering your *Thoughts, Emotions, and Actions* after an upsetting situation to help work through it emotionally and possibly to work out an improved coping strategy for the future. (9)

Ancient wisdom includes a similar method within *The I Ching or Book of Changes* - number 18 *Mountain Wind or Ku* - is a challenge to work on what has been spoiled or decayed through neglect, whether in oneself, another, or in society, and rejuvenate it with effort. Deliberating over the situation for three days to fully understand the problem is the first recommendation, then spending another day applying the chosen action for improvement, and finally watching another three days to see if the problem remains improved. It is likely to be an old problem without an obvious solution so perseverance and gentleness are recommended to reveal the great reward within the problem. (p 39, [I Ching](#), 15)

Solutions may be better than current methods, better than the status quo.

Problems are like pain - what is the pain or the problem trying to tell us about the underlying health of an individual, group, or society?

Types of curiosity and types of curious people are discussed in the Bonus section *Curiosity Types and UX Design*. *Problem solving* is a motivating goal for one group of curious people, they tend to have more *Deprivation Sensitivity* - curiosity about whether supplies or savings will be adequate. *Emphasizers* are another group of curious people who seem motivated by social interaction and helping others. They have more *Social Curiosity*. (5)

“In their seeking, wisdom and madness are one and the same. On the path of love, friend and stranger are one and the same.” - Rumi, a Sufi philosopher and poet.

Joyous Exploration is another type of curiosity - it can be a joy to solve a problem or a puzzle or learn about different cultures. *Thrill Seeking* is a type of curiosity that includes the excitement of exploring new places, ideas, or meeting new people. The *Fascinating* group just love to learn and explore and have higher than average levels of each type of curiosity,

while the *Avoiders* group have lower levels of each type and particularly low in *Stress Tolerance*, preferring to avoid the stress and uncertainty of exploring. *Stress Tolerance* as a type of curiosity refers to a person's tolerance or lack of tolerance for taking on the stress of a challenge or unknown issues of exploring or learning a new skill. (5)

I tend towards the *Fascinating* type of curiosity - the world and everything in it is fascinating, however I also like the productivity of *Problem Solving* and am an *Emphasizer* - pain hurts, and joy is more pleasant.

Ideas for promoting curiosity in children or adults are included in the Main section of this episode, *Curiosity and Intrinsic Motivation*, and techniques for evaluating intrinsic motivation or types of curiosity in individuals or groups are included in the Bonus section: *Curiosity Types and UX Design*.

Thanks for listening! I am looking forward to hearing How you are feeling, email jen@peace-is-happy.org.

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9 Main: Curiosity and Intrinsic Motivation

How are you feeling? Do people really want to know? And do you even know?

Curiosity - the urge to find out more, to ask questions, to learn about other places and people and things. Yes is the answer to the second question - people who ask how you are, probably do want to know the basic answer of are you doing okay? - are things still fine with you? or are you struggling with something?

People are social creatures and knowing how people are doing may serve a purpose of helping the community survive as a whole. Helping each other seems to be instinctual for many species and sometimes will even cross species with different species helping other animals. I wonder if it helps the ecosystem as a whole survive better?

Curiosity is about learning and exploring, practicing and improving skills, getting around the next corner, seeing what is on the back of the tallest shelf, balancing one more block on the stack - spontaneously - by free choice, with intrinsic motivation.

Toddlers are curious about everything. They have a lot of energy and if allowed will put it to use tasting and thunking everything within their reach in order to learn more about what it is - a quick memory test - Think about what cardboard sounds like compared to tapping on a wooden box or what tapping on a glass sounds like compared to tapping on a plastic cup. You can tell the difference probably. We also likely have a sense of what cardboard would taste like or feel like, or we could tell the difference between the glass and the plastic cup by feel. This curiosity of toddlers may frustrate caregivers but it is the drive that helps us become more knowledgeable about our world. I was the type of toddler that reached the top of the refrigerator and who learned what all of the houseplants tasted like - free range salad bar, right? Well, a few house plants may be toxic, and the wise mother will remove those from the salad bar level of the toddler's reach.

Toddler proofing the house is necessary to help protect them from dangerous chemicals, loaded guns, and fire hazards. Bathtubs and pools or fountains may also be drowning hazards for a curious toddler. Giving toddlers plenty of safe things to explore and climb and taste, however, helps expand their brain connectivity and build their innate knowledge of what the world sounds and tastes like.

People in more challenging climates or situations may become more intelligent over their lifetimes than people living in situations that are easier. Being born with the proverbial silver spoon in your mouth - the rich person's child - may seem like a blessing, however it would not guarantee that the child will be allowed to explore and learn what their world tastes and sounds like or what it smells like and feels like and what happens when you drop or throw or kick something.

Skills are easier to learn during the early years of life when brain connectivity between different areas are more actively growing. Learning how to thread a needle to hand sew is a skill that can be difficult for adults to learn if they had never learned it as a child. Emotions seem to help motivate us to keep trying, it feels positive when we succeed and negative when we don't get the thread through the tiny eye of the needle. (Tip: Ask your fabric store attendant for a needle threader if you want to hand sew and find threading the needle is difficult.)

Intrinsic and Extrinsic Motivation, is the difference between being Impelled and Compelled

The dACC section of the brain and its role in perseverance and self control was discussed in a previous episode. Correcting errors or recognizing that a strategy isn't working and changing it are both skills that seem to involve emotions and the dACC

center of the brain. This is considered intrinsic motivation - our internal drive to do something or to improve at doing something for our own sense of satisfaction. (1)

Extrinsic motivation would be the external paycheck or school grade encouraging us to keep working or do a better job in order to get a better grade or a bonus. Extrinsic motivation may also be to avoid a negative punishment or a bad grade. (1) Intrinsic motivation is feeling impelled by an internal force to do something, and extrinsic motivation is being compelled by an external force to do the activity.

There may be benefits associated with intrinsic motivation.

Research in the area of self-determination theory (SDT; Ryan and Deci, 2017) suggests that people with more intrinsic motivation may also have “*enhanced learning, performance, creativity, optimal development and psychological wellness.*” (1) So it may be good for your toddler’s long term intelligence and psychological well being to go ahead and let them taste and thunk the cardboard box in the short term. Don’t worry, they will likely move onto tasting and thunking something else tomorrow.

Why ask why? Why do four year olds ask why repeatedly? Curiosity, but also simply a desire to communicate and they haven’t yet learned how to change the direction of the conversation. Instead of getting frustrated when they ask why the sky is blue even after you tried to answer just switch the topic yourself: “*The sky is blue because of the water moisture in the air and leaves are green because of the green pigment called chlorophyll.*” Kids generally will learn what they are exposed to, so walks in the countryside or a museum or a library, may teach them different things than walks in a grocery store or mall, or being left in a playpen all the time.

"The things I want to know are in books; my best friend is the man who'll get me a book I ain't read" - Abraham Lincoln

The best friend of a young child might be the person who looks at picture books with them and points at the pictures and says the names of things or discusses what is going on in the picture. Initially small children are less interested in listening to an entire story and are learning words and conversation instead. They may get bored with the full story and instead of story time being interactive and fun, it may be frustrating to both the toddler and the adult and not become a daily routine that leads to improved attention span and understanding eventually.

We need some challenge, some frustration to work through, however too much novelty compared to the current skill level can reduce intrinsic motivation - reduce the curiosity to try to solve the puzzle or listen to the story - and may increase our anxiety.

Too little novelty in life, too little challenge, may result in boredom. Feelings of interest and a positive sense of excitement are more present during intrinsic motivation than anxiety or boredom. The drive to explore, of curiosity or intrinsic motivation, seems to involve being interested and a desire to improve skills or knowledge rather than being due to a drive to reduce feelings of anxiety. (1, 11)

Curiosity may include our psychological drive for competence and autonomy.

Competence is a desire to feel effective in activities that are at an optimal level of challenge and further develop the person's skills. Autonomy is the ability to work independently, to be self-directed from an internal goal or desire, rather than from the direction of an external manager. Autonomy may also include a feeling of integrity - the feeling that your actions are personal choices rather than behavior that was coerced or emotionally manipulated. Environments that support the individual's ability to try things and experiment without negative risk can foster curiosity and intrinsic motivation. (1)

Other attitudes that may help promote curiosity or intrinsic motivation may include "*calmness, compassion, patience, tolerance, confidence, [and] trust.*"(6) Good questions to ask to promote curiosity are open ended (9) and inspire or challenge. (6) Making up your mind too quickly may decrease the benefits of a curious mindset. Inquisitiveness and exploring for more information may lead to better solutions or ideas. (6) The old saying may be true, usually the problem isn't the problem - the attitude about the problem is the problem. Most problems have many solutions and the problem is just getting started or is deciding which solutions to test pilot and modify as needed.

Curiosity may also lead us to greater self knowledge over time.

Curiosity about ourselves, and pursuit of learning more about what interests us, may also help us over time achieve better school success (11) and long term wisdom - bring the meditative mountaintop with you wherever you go and maintain an open minded curiosity about everything you do. Keeping the mind challenged with puzzles, classes, social interaction, and other activities may also help preserve memory and cognitive health into old age. (7)

There is more on the topic of curiosity to explore - put on your walking shoes, grab a refillable bottle of water and a library card and go climb a mountain of knowledge - wisdom may be at the top!

There may be some risk in exploring, however positive experiences may be worth the risk. During normal health negative memories may not last as long as positive memories. (2) Changes in health or brain function however, may decrease our ability to forget trauma and lead to ongoing worry, anxiety or depression, topics for future episodes.

Thanks for listening. I'm curious about how you are feeling, email jen@peace-is-happy.org

9 Bonus - Curiosity Types & UX Design

How are you feeling? Do people really want to know? And do you even know?

We take risks due to curiosity, the urge to find out. But we don't want to take risks with our product design. UX stands for user experience and UX designers work towards improving product design or software design. so that people's expectations and frustrations can be fulfilled with minimal frustration and help improve product user experience. Is the on and off button easy to find and easy to operate? Thank a product UX design specialist.

Studying curiosity may help improve product design for different types of users. Five different types of curiosity and four types of curious people have been identified. (5) Psychologists have also observed several traits in common among curious people including:

- Spontaneously asking many questions.
- Reading for the purpose of learning.
- Spending time looking at interesting images or handling interesting objects.
- Learning about other people's feelings, thoughts, and behaviors.
- Willing to take risks for new experiences.
- Persisting with challenging tasks. (5)

So curious people tend to look into things and persist in the pursuit of an interesting discovery or challenging task.

Various theories about curiosity have been combined into five basic types:

1. *Joyous Exploration*
2. *Deprivation Sensitivity*
3. *Stress Tolerance*
4. *Social Curiosity*

5. Thrill Seeking (5)

People were found to group into four clusters with varying amounts of the five types of curiosity:

1. *Fascinated: Scores high across all types of curiosity, especially Joyous Exploration.*
2. *Problem Solvers: Scores high in Deprivation Sensitivity, and medium across the rest of the spectrum.*
3. *Empathizers: Scores high in Social Curiosity, and medium across the rest of the spectrum.*
4. *Avoiders: Scores low across the whole spectrum, especially Stress Tolerance. Remember that Stress Tolerance is the willingness to embrace stress and ambiguity to acquire new experiences. Avoiders seem particularly repelled by this. (5)*

Well that is fascinating.

See the article, *Designing for Curiosity: Using a 5-dimensional Curiosity Matrix to better understand user motivations and behaviors*, by Julian Scaff, for more information and examples of questions to ask potential customers to check which curiosity types they respond to more strongly. (5) For the purposes of design, it is important to know who your potential client is and what they are like and design with that in mind.

Services or products for *Problem Solvers* might be marketed as solutions - reliable, easy, affordable ways to solve a problem. Marketing to *Empathizers* might focus on social value, how the product might be shared or help within a group. For an *Avoider*, possibly emphasize how simple to use your product is going to be and how relaxed the consumer will be. For the *Fascinated* consumer - incorporate some history fact or other interesting trivia or product detail.

"Human action can be modified to some extent, but human nature cannot be changed." - Abraham Lincoln

Get curious about your own emotions too

Learning about your own moods may help you understand and cope with your own actions and habits too. T.E.A. is the acronym for a cognitive therapy technique that suggests considering your *Thoughts, Emotions, and Actions* about events or situations which were troubling for you in some way. It might help in understanding yourself better and help for planning other coping strategies for the future. (9)

Curious questions are open-ended. Asking questions with 'what' or 'how' may be better than 'why' questions because they may cause feelings of defensiveness. (9) However, the 'why' questions may be the most important ones to ask yourself.

An example from my own childhood may illustrate this - when I had done something particularly odd my mother would ask me "*What were you thinking?*" I had two standard

responses, either “*It seemed like a good idea at the time,*” or “*Clearly, that time I wasn’t thinking.*” The answer was based on whether I remembered thinking about the action or if I really had no idea why I had done whatever odd thing I had done.

I found out much later in life that I have ADHD, Attention Deficit Hyperactivity Disorder - a physical condition affecting brain energy levels. When I try to concentrate, work harder, pay attention, then my electrical activity in the main thinking and movement areas of my brain slows down instead of becoming more active. The ‘what’ question from my childhood identified a problem and the ‘why’ answer from a diagnosis as an adult helped me to understand that I need to relax in order to be able to concentrate better and move more fluidly. Paying attention to when I had trouble thinking and doing odd things or bumping into doorways helped me realize that I need to eat regularly and not get too tired, or at least to not schedule or do anything important when tired and easily confused or manipulated -- and to not shop whether TV infomercial, online or instore impulse buy - Does that make me an *Avoider* or just someone with good self knowledge?

Why? is a good question to ask yourself. Why does this tend to happen to me? Or why do I tend to always do that at certain times of day? Look for patterns and then make one change and stick with it for a week to a month to see if it is an improvement. Curiosity can help with problem solving as well as with learning fascinating facts.

Curiosity and intrinsic motivation are included in the Work Preference Inventory.

The *Work Preference Inventory (WPI)* may also be useful for assessing curiosity in oneself or for group settings, or it may be helpful as a reference for an UX, user experience designer. The WPI has questions for considering worker’s preferences for intrinsic and extrinsic motivation. *Intrinsic motivation* includes “(self-determination, competence, task involvement, curiosity, enjoyment, and interest)” and *extrinsic motivation* includes “(concerns with competition, evaluation, recognition, money or other tangible incentives, and constraint by others).” (10) Having more intrinsic motivation may help with school and work performance as the learning or work is a primary goal with intrinsic motivation, instead of the paycheck or grade of extrinsic motivation.

Well, thanks for being motivated and listening today. If you are curious, future topics will include the positive mood effects of nature, and the freeze/flight/fight fear response and the different type of immobility of worry and overthinking. In the meantime, I will be looking forward to hearing how you are feeling, email jen@peace-is-happy.org.

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<https://philarchive.org/archive/ARAEFE> "The feeling of curiosity: An emotional state that motivates exploratory behaviours and knowledge acquisition (Litman et al. 2005) (but see Inan (2012) for a different view).""Epistemic feelings and epistemic emotions are often not clearly differentiated in the literature, with researchers using the terms more or less interchangeably. There are, however, some key differences between feelings and emotions. First, whereas feelings are phenomenal experiences of which the subject is conscious (though they often form part of the fringe of consciousness – see section 2.1), emotions can in many cases be unconscious – they need not form part of the stream of consciousness. Second, emotions, unlike feelings, in many cases involve sophisticated cognitive states (including beliefs and desires) – unlike feelings, emotions often involve properly propositional content (see section 1.4 on the content of E-feelings). Given the existence of these basic differences between feelings and emotions in general, there is a strong prima facie case to be made for distinguishing between E-feelings and E-emotions"
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<https://static1.squarespace.com/static/57309137ab48de6f423b3eec/t/5807a25bbe6594d9f60628e0/1476895324656/Muis+et+al.+2015.pdf> "Research has shown that positive emotional experiences relate to students' academic achievement and success in an academic domain (Pekrun, Elliot, & Maier, 2009), whereas the converse is found for negative emotional experiences (Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011). Emotions such as enjoyment, hope, and pride positively predict academic achievement, whereas negative emotions like boredom and hopelessness can lead to a decrease in achievement (Pekrun et al., 2011)." "Specifically, research on epistemic emotions has shown that curiosity positively predicts the use of deep processing cognitive and metacognitive strategies, including metacognitive monitoring and evaluation of learning, as well as critical thinking and elaboration of content, whereas surprise negatively predicts critical thinking (Muis et al., accepted). D'Mello, Lehman, Pekrun, and Graesser (2014) found that confusion is beneficial for learning when that confusion can be resolved through the use of appropriate learning strategies"
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Notes

Can Curiosity Be Described as an Emotion? (14) answer gave this book link ([amazon](#)) and 'proof' curiosity is a motivation - part of intrinsic motivation - along with "self-determination, competence, task involvement, curiosity, enjoyment, and interest," extrinsic motivation- "concerns with competition, evaluation, recognition, money or other tangible incentives, constraint by others." (14)

Epistemic emotions, ([3](#), [4](#), [12](#), [14](#))

"If you have so many defects, why are you surprised to find defects in others?"
— Josemaría Escrivá

"Every man possesses the Buddha-nature. Do not demean yourselves."
— Dōgen