Feelings, Emotions, and Affect
Part 2: The Prime Emotions

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Now, I want to address the four prime emotions of fear, anger, grief and joy. Why only four? Well, these are the ones that give most people lots of trouble, both in having them, dealing with them and communicating about them.

Also, there are four unique chemical processes, one for each. There may be many words for fear, but only one chemical. The same is true for anger, grief and joy.

Since there are different chemistries, one can have more than one of these emotions at a time. I believe it quite possible to have large doses of all four emotions. What would you report on, then. I feel scared that my anger makes me so sad that I feel happy! What a mix! But it is possible.

Also I want you to recall that emotions have intensity. For low levels of Fear people often use words like nervous, uneasy, and uncomfortable. For hi levels people use words like terror.

For low levels of Anger people speak of testy, ticked off, bugged, growly. For high levels they speak of rage.

For low levels of Grief people say they are blue, moody. For High levels they speak of inconsolable grief. For low levels of Joy people speak of feeling good. For high levels they refer to ecstasy.

For a list of words used for different emotions click here.

Fear

Fear is the first emotion. It is primitive in its function, and is a normal function of the old brain. Check out my paper on Safety: The Lizard for the psycho-social issues of fear.

Adrenaline

The primary chemical of fear is adrenaline – sometimes call epinephrine. While many parts of the body produce this hormone, its major source is part of the adrenal gland in the middle of your back. When the brain interprets the situation as deserving fear, it squirts a dose of adrenaline into your blood stream, which carries it in less than a second to all parts of your body – to your finger tips. Since the brain is filled with blood, whole new memories become available and others are forgotten when adrenaline floods it. This is how the emotion of fear affects thinking processes.

Function

The feeling of Fear functions to prepare the body for survival. The chemistry flows

when the old brain (the Lizard) senses imminent threat to life. As you may have read, this part of the body can misunderstand things easily. Still it prepares things. The chemical shuts down non-necessary functions (digestion, immune system), it empties useless weight (bowels and bladder), and it prepares for "last ditch efforts." It is designed to be very short lived — 20 minutes or less. It is the chemical experience that the gazelle experiences when it notices the approaching lion. In our culture this is a terrible problem as most of us live in a "short-term survival" status for years. We aren't designed for this. Stress kills. Here's a link for a to the best, readable, book I know on Stress.

Feels awful

The experience of adrenaline is very quick and profound. Consider you are driving a car peacefully, and then hearing a police siren directly behind you, very close. That sensation in your body is the adrenaline flooding you. The word "flooding" is a good one for this experience. The feeling is not fun. If you were to receive an injection of adrenaline, your body tends to go "ugh". It is not pleasant.
(Note: People speak of an adrenaline high, but that is different from fear and results from other chemicals.)

Lasts a minimum of 20 minutes

Once the adrenaline hits your body it takes at least 20 minutes for your body to filter it out of your blood stream.

You are driving peacefully, hear a siren, have the adrenaline flooding experience, and then notice the police is after someone else. Fifteen minutes later you are still reacting to the adrenaline in your body. For that length of time your body continues to experience the effects of that hormone.

The experience is pretty strong, but the body habituates (gets used) to it quickly. And so people often loose their awareness of the adrenaline in, say, 6 minutes. Yet it is still there affecting thinking and a lot of other things. This issue of timing is pretty important. What is means is that after a person receives a fright, they will not return to normal for at least 20 minutes even though they will experience the "feeling" going away.

Can go on forever

What is even more interesting is that the part of our bodies that produces adrenaline seems extremely over engineered. It can go on producing for ever. It never gets tired.

It can kill you

And it seems so over engineered that it can produce enough adrenaline right now to kill you. Adrenaline is remarkably toxic. Enough will stop various organs from functioning, like your heart. And your body can produce enough to do the job.

It doesn't, normally, because adrenaline production is in the hands of the survival mechanism of your old brain. It doesn't want to kill you as its function is to keep you alive at all costs.

Still people can and do "die of fear". The first time I heard of this was in stories of prisoners in concentration camps in the 2nd World War. People would receive a shock and drop over dead. How would this happen?

Additive

Here is the story I tell clients.

In the 1950s some researchers were interested in habituating (getting used to) effects of adrenaline. They found that people accustomed to high levels could perform remarkably well. Soldiers for years were trained using fear techniques and the researchers were interested in the effects.

What they did was to get a large number of white rats. First they determined how much adrenaline would kill a rat – let's say 55 units. Then they gave all their rats the equivalent of 50 units daily for two weeks – just less than the lethal dose. At the end of that time the previous killing dose of 55 did not kill a rat. It now took 95 units to kill. The rats' bodies had become habituated or immune to a dose that would have killed them.

So now they gave the rats 90 units of adrenaline daily for two weeks. At the end of that time, it took 135 units to kill the rats. So they tried 130 units - and so on and so forth. They finally reached an upper limit beyond which the rats could not survive. The number was 450 units of adrenaline, around 9 times the dose that would have killed the rats in the first place. They had now a small collection of rats living with this high level of adrenaline. The rats were not exactly "normal." They had stopped reproduction activities. Their immune systems were very weak. Much of their behavior was quite odd. But they were alive!

This gave the researchers an analogy to soldiers. Soldiers have traditionally been

habituated to high levels of adrenaline. Many years ago these soldliers were called berserkers and were highly valued as extremely useful warriors who fought with wild unrestrained aggression.

While in the military, I heard that the North Vietnamese had used these techniques to train soldiers. A friend of mine described such a soldier running across a landing zone during a fire fight. The soldier was carrying a heavy M60 rifle he had grabbed. He had no feet. He was running on the shattered bones of his legs.

The study also pointed out that people can live with very high levels of adrenaline and not be aware of it. A person can be in great fear, and not know it.

There are many, many tests of how high a level fear people are living with. These "stress tests" often let a person score how many "stressful" events have happened to them recently. Such events as death of a family member, loss of a job, arrest, etc. increase basic stress levels for months. The Polynesians know that when a man looses a wife it may take as much as a year for him to recover. This is consistent with bringing down the high level of adrenaline that his body will start to produce after the death. In our culture, such a man may be given a week off from work to recover, while in the Pacific islands he may get his year.

By the way, you may wonder what they did with those surviving rats. Well it was simple but quite interesting. They set up their cages in a room on tables. Then they created a large noise, a bang, in the room. Every rat rolled over dead. You see, adrenaline is additive. They were already living at the upper limit of their capacity and the noise triggered another bit, which was too much. This is how the people in prison camps died. They were already at too high a level, a level close to a lethal one, and the shock sent them over their limit.

Thus I've learned that fear is additive; that is, one source of fear adds to another. I also learned that one can live with high levels of fear and not be aware of it. High levels of adrenaline in your blood stream, and no conscious awareness of it, can be a big problem. It seems easy and common for people to say, "I'm not scared or fearful," when they have been fearful all their lives.

Social Value: Useful, desirable

And so, what do you think is the social value of FEAR. Is it a "good" or a "bad"? To me, the amazing answer is that it is a very desirable emotion from the point of view of our culture. Our culture is, in my opinion, a control-freak culture. We want people to be obedient and manageable. Thus we use threat, tactic that cause fear in others, everywhere and often in order to obtain control. Think of the terms "fear of God" as

used in many religions. Think of the way police dress and act – in threatening ways. Our culture uses fear since our culture likes obedience.

When I went to teach school (I got my degree in teaching) for the first time, the more experienced teachers took me aside before the school season began to tell me the ropes. One piece of advice really stands out after all these years. "If you try to make friends with them in the first couple of days, you will pay for it. Scare the begeesus out of them for at least 4 days. Pile on the homework. If they look frightened, you are doing your job."

Every couple that I see for marriage counseling is, among other things, doing one specific thing wrong. They are using "threat in an attempt to get love." I think this foolishness is a direct result of our culture's love affair with using the emotion of FEAR.

Anger

Anger is the next emotion. It is also is primitive in its function. However, I think it is the most misunderstood of emotions and is talked about so casually that I am going to go slowly here.

First I want you re-call that Emotional/Feelings are 1) Events in the Body, 2) are chemical in nature, 3) involve awareness, 4) about which we talk or report and 5) that have social value. I want you to recall this because Anger is the first of the Emotions that has "negative" social value, is frequently reported incorrectly, about which we have more awareness of in others. Thus most seem quite confused about it. I may change your views of anger. I may not. I will share mine with you and see where we all end up.

Nor-epinephrine or nor-adrenaline

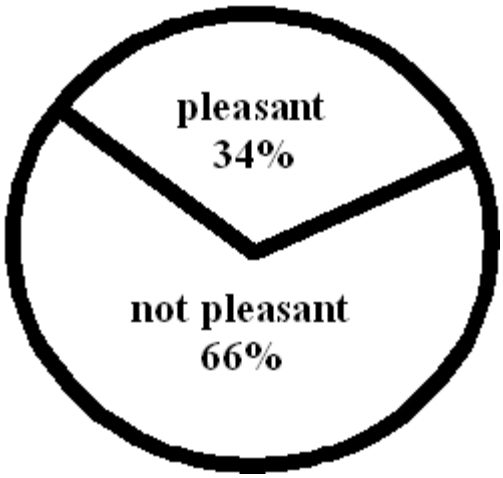
The chemical the gives rise to anger is another secreted primarily by the adrenal glands and injected into the blood stream. Thus its effect on the body is very quick, like that of adrenaline – Fear. It saturates the brain in a split second. But..... oh, well. Let me share this with you, as I do in my office.

The Question

I want you to answer a question and I want you to force yourself to go for a yes or no answer. Here's the question. When you feel anger is it a pleasant experience or an unpleasant experience? Now, just go for a yes or now. I hope this will be instructive.

When I asked this question in a class I was teaching at college about 2 out of 3 said

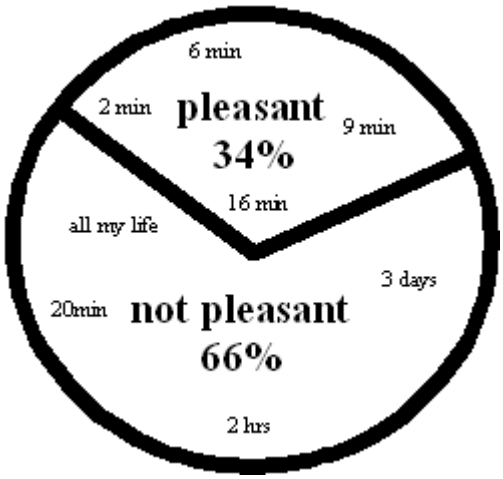
"anger is unpleasant". About 1/3 saw "anger as pleasant." The class had almost 120 students in it. If I was using that class to determine whether Anger was pleasant or not, I don't think that would have been a good test. About 80 said unpleasant and didn't debate it. Lots of you reading this will say that. About 40 said anger was pleasant. And so lots of you reading this will say so. Now how can this be?



How could so many disagree? But I have found this split to be pretty normal. Most people experience Anger as an undesireable experience while a large minority experience it as fun.

Now before I solve the puzzle for you, let me ask one more question. When you get angry, really angry, what is the longest that your anger has lasted? (Seconds, minutes, hours, etc.) Be honest with yourself. And I will explain what is going on.

The people who experienced Anger unpleasant described their anger as lasting hours, days, weeks, and one guy even said, "all my life." The people how experienced Anger as pleasant described their anger as lasting 2 minutes, 4 minutes, 7 minutes, 12 minutes, but never longer than 15 minutes.



Nor-epinephrine feels GREAT!

I call it the "Tony the Tiger" emotion. If you got it in a injection, it would make you breathe deeply, and chill you deliciously. Wow is it nice.

Nor—epinephrine can only last 15 minutes MAXIMUM

The part of your body that produces it, is very short functioning. After 10 to 15 minutes, it must rest. It cannot keep producing the hormone steadily.

These two pieces of data explain the answers the 1/3 of my class gave. Anger is a relatively short-term but pleasant experience. They are people who have learned that anger is an "ok" emotion. I think most of them are Irish.

The Others – the confusion

But what explains the answers of the majority of my class, of the majority of people I've seen, and my original answers. When I was studying this material, I had experienced what I called very unpleasant anger for a long time.

Well, you already have the answer. What emotion can last forever and feels unpleasant? Sure, Fear does. Most people are fearful of Anger. When anger comes, they get fear at the same time. Their body secretes adrenaline and nor-epinephrine at the same time. And then in about 15 minutes, they are left with the adrenaline only and the thoughts that started the whole thing off. Their angry thoughts, their hostility, feels awful, because those thoughts are accompanied by Fear. But they have been calling this state "Anger."

I recall tell this to the guy who said, "I've been angry all my life." He looked shocked and quiet for a while. Then he said, "So I've been scared all my life. Damn that makes sense."

Making money off of this confusion

To help you really experience this difference between pleasant Anger and unpleasant Anger, I tell this story.

There is an industry in this country that takes advantage of our mis-understanding about Anger and makes BILLIONS of dollars off of us all. They know that for most people anger feels bad. They know the potential of the good feeling of anger. So they give it to us for $5 to $10. They know that in the U.S. and most western nations, we are all taught that anger is free from the connected fear "if the anger is justified." This

is a powerful rule for most people. So this industry takes advantage of this.

They take us into a dark room, show us moving pictures on the wall in which somebody does bad things. Then at the last moment, John Wayne or Jean Claude Van Damme, or some other hero, beats the tar out of the bad guy, and most everyone in the audience experiences pure Anger without Fear. That glorious sensation you get in your body when the bad witch falls off the cliff in Snow White, when the maid, Eowyn, stabs the Witch King, oooh you can name many movies and cartoons, that wonderful sensation is caused by nor-epinephrine. Ain't it cool! It hits your body, makes you cheer, makes you feel great. If it happens very close to the end of the film, you strut out of the theatre, stride to your car, but it wears off before you make it to the restaurant.

I recall the movie Raiders of the Lost Ark where Speilberg put the nor-epinephrine events too close together. The movie is just exhausting for most people. That adrenal gland can produce the first rush, but needs some rest time to produce the next. Get that film. Play it, but stop for 10 minutes after each high charged event. I think you may enjoy the movie more.

This pattern became so clear to me, that I used to tell my children stories by starting with how bad someone was. And it is also so clear to me that when someone comes into my office and talks about how "bad" their partner is, they are just Angry at them, and are running the "first part of a film" to justify the anger they already feel. One of my great teachers used to say, "To get angry at someone, first you must put them in the wrong." I've witnessed politicians and military leaders doing this for years.

Function

The feeling of Anger functions to raise a person's energy level in order to push throught blocks. The chemistry flows when the old brain (the Lizard) senses something blocking it from achieving its goal. This is the feeling the lion feels when it sees the gazelle on the other side of the clearing. This is the feeling produced automatically when we face frustration. If you want something and can't get it, you feel frustrated and the chemical of anger is produced. However, for most of us, the chemical of fear is also produced.

Social Value: Undesirable, except with justified

In our culture, the general idea seems to be that we should all contain our anger. That means we should not express it, unless of course it is justified. Soldiers can express it. Police can express it when it is proper. But I was taught from childhood that I was not supposed to express anger.

This is a funny thing. Because a large majority of parents express anger. Just ask their kids. I sometimes do. Here are my questions.

When your daddy got angry, what did he do? List these things. When your momma got angry, what did she do? List those things. Now when you got angry what were you allowed to do? That is often an instructive lesson. It might be worth noting that whatever your parents did when they got angry, you probably were scared.

Summary: Anger

This emotion is chemical in nature (nor-epinephrine), feels good, lasts a very short time, is mislabled by most of us, and is socially unacceptable to express – unless "justified."

Grief

The next major emotion is Grief or Sadness. (I am going to be quicker with these last two emotions as I want get on to the bigger lesson about feelings.)

Prolactin

The chemical involved with Grief is prolactin and it is a neurotransmitter in the brain, rather than a hormone injected in the bloodstream. This piece of information will come in handy latter.

One interesting thing I read about Prolactin is that its production decreases in males somewhere after the age of 10. What I think this means is that there is a chemical basis for some of the difficulty men have in weeping.

On the other hand, I think men generally have a lot more to weep about.

Function

The feeling of grief functions to help us adjust to loss. Where Anger helps us push through blocks to get what we want, Grief is there to help adjust to life when we don't have what we want. Humans are strongly capable of developing desires. Grief is there to allow us to let go. A person who cannot express grief is hamstrung in their ability to let go. Most indigenous cultures believe that our culture will fall apart because we teach people not to grieve. They believe grieving is essential to healthy life both for the individual and for the culture.

Loose Control

Prolactin is produced by the Mid-Brain and its effect on the other functions of the brain are enormous. Generally speaking, when a person weeps they loose control of themselves, their bodies, their consciousness. When they finish, they "come back to

the world." A person should never drive a car while crying as they are likely to crash. Grief is an emotion of loosing control.

And when you grieve of one thing, it seems you grieve for all losses. Thus crying at a sad movie can help you adjust to the loss of things in your life.

Social Value: Undesirable, especially in men

Many men are taught at an early age that crying is for "sissies." They are mocked for sadness and told to keep a stiff upper lip. "Heck, I'll give you something to cry about."

Many girls are taught that it is ok to cry but not ok to get mad. The result is that many women I have met, tend to cry when they get angry.

Joy

The last major emotion is joy or happiness.

Endorphins

The primary chemical in pleasure or joy is endorphins, yet another brain chemical. Endorphins go directly to work in the brain and strongly effect the thinking processes.

Function

I imagine the purpose of joy is to give us something to live for. Joy signals that all is going well. I remember a picture I saw as a kid that said, "Man is the only animal that doesn't know that the purpose of life is to take joy."

Social Value: Undesirable, in public

I think it amazing to note that most kids learn early that parents don't want them to be happy. Kids are designed for high levels of joy, but most times you see them being told to be quiet. Kids are built for hardware stores and to run up and down the aisles pulling things off shelves. Kids are designed to run around restaurants yelling and laughing. One time I was asked, "How do you take a kid to a nice restaurant and have peace." I replied, "You don't. Kids aren't designed for that." Kids are designed for campgrounds and parks. Joy is noisy. Learn to live with it.

Loose Control

Because endorphins are produced in the mid-brain, like Grief, the emotion of Joy is an emotion of loosing control. People who are laughing very hard can get into car accidents as the brain is slightly incapacitated when in very high joy. Perhaps that is

why people hold onto each other during love making – so they don't fly off into outer space.

Chart of Feelings

So here we have the four major emotions. Three of them are frequently socially unacceptable, and the one that is socially acceptable feels ugly.