

A PRIMER OF AFFECT PSYCHOLOGY

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The purpose of this primer is to introduce the reader to the work of Silvan S. Tomkins, who dedicated his life to developing a new, more comprehensive understanding of the biological and evolutionary roots of human motivation in order to establish a more accurate picture of personality, something he called Human Being Theory. While Tomkins's formal educational background included the study of playwriting, philosophy, and psychology, it is clear from reading the four volumes of his magnum opus *Affect Imagery Consciousness* that he was also well versed in many other areas including anatomy, Darwinian evolution, history, literature, religion, and artificial intelligence, all of which he pursued to answer the question "What do human beings really want?"

My introduction to Tomkins's theories took place in the early 1980's when I initially read volumes I and II of *Affect Imagery Consciousness* (abbreviated *AIC* from here on) which were first published in 1962 and 1963. My motivation for doing so was provided by my colleague Donald L. Nathanson, MD whose excitement at discovering Tomkins's ideas was contagious. Both of us realized that in spite of our extensive psychiatric training, there was something missing in our understanding of human motivation. Our joint excitement, however, was soon reduced by the shame we experienced both because Tomkins's dense writing style was difficult to penetrate and because the major paradigm shift regarding human motivation that he outlined was initially very hard to grasp. Ultimately we formed a study group with several other colleagues; the collegial atmosphere proved to be an excellent means to explore the reading with greater understanding and thereby reduce our shame, keeping alive our interest in learning more. For me the result was a transformation in the way I see human motivation, my own included, and, therefore, in the way I work with my patients.

To make your work easier, I have for the most part limited this primer to a moderately superficial presentation of that aspect of Tomkins's work that is best learned first—affect psychology. Affect psychology is the logical place to start because it contains the basic building blocks of his theory of human motivation and personality formation. It is important to keep in mind that affect psychology contains very different ideas about the origins of emotion and how you usually think of them. What you were taught either formally or informally by word-of-mouth are the current culturally determined beliefs about human emotion and motivation. The current set of beliefs is missing some vital components and wrong about some others. As a result, while what follows will hopefully seem logical to you, it may also seem a bit strange at first. I have tried very hard to present the material in a way that will minimize negative feelings triggered by this learning experience. But the reality is that shifts in orientation seldom come easily to most people, and that has proven especially true when it comes to the study of Tomkins's work.

I have written this primer in the style of a verbal presentation I make to many of my patients in their early sessions, once a goal for therapy has been established. It is my belief that we are very much what we feel, that we live primarily in the affect of the moment, and that it is impossible to know the self without knowing accurately and immediately what we feel. To try to understand human beings without knowing about the biologic roots of affect and how affect is triggered is like trying to build a house without knowing the fundamentals of creating a strong foundation. Your house may stand for awhile, but when it is stressed, it will fall apart.

My patients tell me that although I have given them entirely too much information about affect psychology in the first two sessions, they think they understand. But in truth we spend the rest of our time together on a journey toward solidifying that understanding. This work is dedicated to them for the intense interest-excitement they have triggered in me by permitting me to travel with them. I hope you too find interest-excitement in reading the pages that follow, and that your understanding of what you and those around you "really want" is enhanced.

BEGINNINGS

There is no best place to begin any description of affect psychology. It would not be useful to start with a simple definition of “affect” because affect is best understood when seen in the overall context of its general purpose. However, before going there, it is good for you to know that an affect is a biological event, a normal part of the everyday functioning of our central nervous system (CNS). An affect is, in some respects, like a normal knee jerk reflex. If one applies the proper stimulus to the patellar tendon—a tap with a small hammer—in just the right place with just the right amount of force, then the lower leg will jerk upwards. Similarly, if the proper stimulus is received in the CNS, an affect is triggered. How this takes place will become clear later on, but for now, please do not think of an affect as some kind of mysterious psychological event. It is not. It is simply a normal part of brain functioning that has evolved in our species for a specific purpose. Affects are so much a part of everyday life that you seldom think about them and often do not even recognize their presence.

Tomkins paid a great deal of attention to the work of the evolutionist Charles Darwin. Once Tomkins recognized that our CNS has a system comprised of nine affects, his inquiring mind needed to know why we have affects and what function they serve. He turned to Darwin’s work, especially concerning the universal nature of facial responses amongst people regardless of race or where on earth they lived. Darwin believed that it was no accident, for instance, that when in the midst of *enjoyment*, all peoples smile the same way. (The bolded, italicized words are my way of introducing several of the affects before I present them more formally. I want you to begin to think of them as a normal, everyday part of our life and not some mysterious piece of psychobabble.) Since Tomkins perceived the face to be an integral part of the affect system, he looked to evolution for an explanation as to why our species needed an affect system.

His conclusion was that the affect system evolved to solve a problem that threatened our survival. The problem was *stimulus confusion*. Imagine that in the very earliest stages of man’s emergence, especially after we developed the ability to move significant distances on foot, we had many if not all of our senses intact. By this point in our evolution, it is likely that we could at least see, hear, smell, taste and feel things by touch. This meant that at each instant in time the brain would be receiving a great deal of information from and about the world around us. Furthermore, even to this day, we humans lack the ability to be consciously aware of most of the things that go on around and inside of us. We can shift our focus rapidly, but we still can only focus on one thing at a time. Tomkins called this a limited channel of consciousness.

With this limited consciousness and so many stimuli hitting us all at once, how could we sort it out rapidly? Survival demanded that we be able to attend immediately to the most significant thing taking place. I imagine it as being comparable to walking in a large mall during the holiday season with hundreds of people in a rush, bumping into you, loud music blaring, the smells of many things cooking, gaudy decorations dangling from the ceiling, lights flashing in all the stores. The stimulus overload makes it so difficult to concentrate that you could easily forget what you were there to buy. (I’ve sometimes come home with a bunch of stuff, none of which I really wanted or needed, and without the right present for my wife.)

Tomkins surmised that the affect system evolved as a normal brain function to reduce confusion from stimulus overload. He proposed that in order for us to become conscious of any stimulus, it must first activate the affect system in such a way that one of the nine affects is triggered. How this happens will be detailed later. But the conclusion he derived from this proposal is that stimuli that do not trigger an affect, do not enter into our conscious awareness! This conceptualization is a radical departure from most psychological theories of emotional functioning. In brief, most prior theories postulate that some form of learning must take place before you have feelings about something. Tomkins studied children—you can

do this yourself by observing very young babies—and saw affect on their faces from the moment of birth. The most obvious is the affect *distress*, visible on the face and in the cry of all normal newborns as they emerge from the birth canal. Obviously no learning could have taken place that would cause the infant to view its world as distressing. Instead, Tomkins said, the distress is triggered by an innate, inborn response to the stimulus conditions that act upon the baby.

The bottom line of Tomkins's observations is that conscious awareness of anything **only** occurs after an affect has been triggered. Since only one affect can be triggered at a time, then any stimulus that triggers an affect is the only stimulus we can be aware of at that instant. If, for instance, my writing here is sufficiently clear and entertaining, then the affect *interest* will be triggered in you. As long as your interest is maintained, it will be easier for you to ignore other sights and sounds in the environment and focus on what you are reading. If a more powerful stimulus such as an earthquake occurs, then *fear* will be triggered in you and your entire focus and attention will be centered on protecting yourself.

The evolutionary significance of the affect system is to *simplify* things by directing attention to one stimulus at a time. With this simplifying mechanism in place, the problem of stimulus confusion is solved. As suggested in the above example, this is especially important if that thing poses a danger to existence. The sight of a car careening at you from the other side of the street or a lion charging at you through the jungle gains immediate attention. You do not have to *think* about it. The careening car or charging lion trigger fear affect, just like the reflex hammer on the knee triggers the knee jerk. How many times have you heard someone say about a crisis like this, "I didn't even think about it, I just reacted?" This is one of the characteristics of all nine of the affects, not just fear. You do not "think" about any of them, they are triggered by stimulus conditions and, therefore, just happen. All things considered, it is very likely that the human species would have become extinct if we had not developed an affect system. And this may help you appreciate why Tomkins believed the affect system to have a central role in brain functioning. I think of the affect system as being like a lens between conscious awareness and the world around us. Everything must pass through the lens before we become aware of it.

BRAIN SYSTEMS

One way to think about our CNS is to conceptualize it based on the various functions it performs. It is somewhat artificial to do this since in normally functioning brains, all systems are working simultaneously and in concert with one another. However, it will make it easier to understand the special nature and functions of the affect system if it is contrasted with the other functional brain systems. Since historically there has been disagreement amongst psychological theorists as to which system is **THE** primary motivator of human behavior, the artificial device of separating them by function might help you decide this matter for yourself. The four that are worthy of the greatest consideration are the Drive System, the Pain System, the Cognitive System, and the Affect System. (Keep in mind that when I use the word "system," I am referring to brain "function" and not necessarily to any specific part of or area in the brain.)

1) THE PAIN SYSTEM

Our pain system operates very much like something that in computer language is called a subroutine. It is poised in the background ready to react whenever it is needed. For instance, if a pin sticks into your leg, the nerve endings from that spot on the leg send a signal to the brain. You feel pain almost instantaneously and are motivated to locate the spot where it hurts, and remove the pin. After rubbing the spot for a moment or two, the pain goes away. As soon as it is gone, the pain system retreats into the background again. The pain system, therefore, is a motivator. It is a motivator for very specific events that take place within our bodies. Through memory and learning, we are further motivated to avoid things that cause us physical pain. In adults, having learned what hurts, our avoidance of those things becomes

automatic. We do not have to think about it very much. And we can trust the pain system to let us know when we've made a mistake.

As a motivator for the more meaningful things in life, like career and relationship choices, the pain system is not very important, especially because it is too localized. Furthermore, the affect system and the emotions it leads to very frequently override messages from the pain system. We have all heard dramatic stories like the one about the severely wounded soldier who should be crippled by the intense pain from his injury. However, when his buddy in the foxhole beside him is killed, his *rage* is so great, it overrides his pain and he attacks the enemy who killed his friend. Likewise, there are many stories of parents who ignore their own pain and run into burning buildings willing to suffer horrendous burns because of their fear for their beloved children.

Less dramatic is the fact of everyday life that we have many aches and pains all the time, and we ignore them because of affect. We have all "forgotten" about toothaches or stomachaches or joint pain because something we were doing was of great interest or caused fear or distress. Obviously as powerful as the pain system can be, the affect system is often much more motivating.

2) THE DRIVE SYSTEM

This system of brain functions deals with things going into and out of our bodies on a periodic basis. The basic drives are hunger, defecation, urination, breathing and sexuality. Those who are familiar with the work of Sigmund Freud know this as the system he postulated as having the greatest motivational power, especially sexual drive. Affect psychologists do not agree. They believe that the drives give us information as to where and when something is needed but they are not especially motivating. Here are some examples.

At certain times, hunger drive appears and signals us that we are hungry or thirsty in the stomach or mouth—the where and when information. But think how often we ignore this information? If you have a strong interest in something you are doing, you may ignore hunger signals for hours. Many people who are experiencing fear will tell you that they are unable to eat until the fear goes away. The opposite thing can happen if somebody offers us a particularly interesting looking preparation of food and we eat even though we do not feel hungry. Or we eat when we are in *distress* after a busy day at work or a troubling family problem is on our mind because it feels like eating will give us relief. The signals that we need to urinate or defecate can also be ignored for long periods of time until the pain system is activated triggering sufficient distress to motivate us to head for the bathroom.

Breathing is an interesting drive that for the most part is completely ignored by us until something happens to impede it. The fear that is triggered when breathing is difficult—as during an asthma attack—is highly motivating. The connection between fear and breathing is not well understood but some researchers theorize that panic disorder is the result of a defect in the respiratory mechanism in the brain.

What about sex drive as a motivator? It certainly gives information about a need in the genitals, but it too is subject to the motivating forces of the affect system. Imagine being at the height of sexual excitement with your partner and someone comes into the room and points a gun at your head. Your fear will immediately shut off any interest in sex. Likewise, if one's partner says something that triggers *shame* ("Is that all the bigger it gets?" or "Is that cellulite on your legs?"), sexuality becomes the farthest thing from your mind. Hopefully it is clear from these few examples that it is the affects that control motivation related to the drives. The drives give us information about something we need and the place where it is needed, but it is the affects that motivate us to do or not do something about that information.

3) THE COGNITIVE SYSTEM

This is the system in our brain that handles a wide variety of things such as $1 + 1 = 2$, the wild imagination involved in the writing of science fiction, the perceived beauty of a landscape, the love of

country. It is vital for memory recall and problem solving. It both *acquires* raw data and *transforms* it into understanding and knowledge.

I began this section on brain systems with the idea that the brain could be described by dividing it into separate functions. While it may be clear that the pain and drive functions are quite different from the more powerfully motivating function of the affect system, the same cannot be said of the cognitive system. Tomkins's genius was that he was able to unpack the complexity of human behavior down to its basic motivational roots. To do so, he had to temporarily ignore the cognitive system and draw all attention to the motivational significance of the affect system; even though he knew that the two are not separate in functioning human beings. In reality, they work hand-in-hand.

The purely "rational" understanding or knowledge of something by cognitive processes is not motivating without affect. Likewise, the purely "emotional" originating from within the affect system operates in the dark without cognition. From the point of view of survival of the species, a real separation in the functioning of these two systems would be a disaster. For instance, the fear triggered (by a biologic mechanism that will soon be explained) when a car is spotted heading right at you would not be acted on properly if you did not have knowledge about the possible consequences of not moving out of the way. You might simply stand there frozen in terror. By the same token, the knowledge that the car is coming at you is useless until fear motivates you to move. Otherwise, you might stand there wondering about the paint job or the design of the front bumper. The bottom line is that the cognitive system and affect system have an open channel to one another. They always operate together even though they have different functions.

4) THE AFFECT SYSTEM

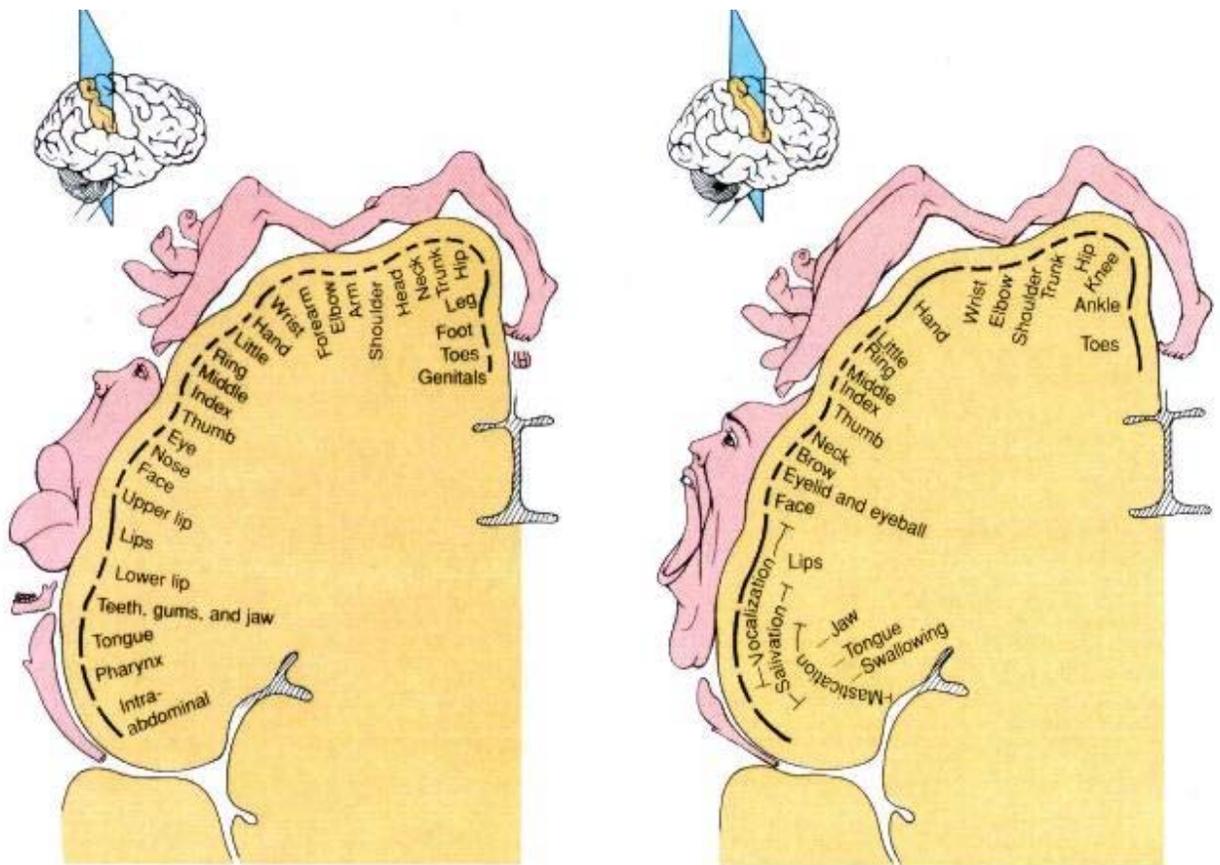
The technical details of the affect system fill about 1400 of the most densely detailed written pages one can imagine in *AIC*. In this primer, I have intentionally omitted many of these details in an attempt to avoid both confusion and the need to write another 1400 pages. For those who wish to understand the full breadth and depth of Tomkins's description of the affect system, you will have to read his work directly. (If you do, I suggest you find several other interested friends and colleagues to join you in a study group. It is difficult and at times confusing work plowing through the four volumes of *Affect Imagery Consciousness*. The reward in my opinion is great.)

I have already mentioned that Tomkins conceptualized that the affect system evolved to protect our species from the dangers inherent in a brain overloaded by too many confusing external stimuli. The affect system simplifies things for us by permitting only one stimulus at a time to enter consciousness. The best analogy I've heard to describe this is from the lectures of my colleague Don Nathanson. To expand his analogy a bit: imagine yourself in a large theater. There is frenetic action taking place on a dimly lit, almost dark stage with a very large cast of characters, all speaking simultaneously. The scene is, therefore, confusing and unintelligible. It is virtually impossible to ascertain the most salient features of the show. Now imagine there is a bank of nine powerful spotlight/sound devices. Only one of these spotlight/sound devices can be on at a time, and each one can go on and off in rapid succession if necessary. Imagine next that when a special signal is given, a spotlight/sound device is aimed directly at one actor and everything else on the stage becomes completely dark. At the same time the spotlight makes the actor highly visible, his microphone is turned on and all the other microphones are muted. One actor can now be seen and heard clearly. Your task of following the plot is simplified because the action of the spotlight/sound device narrows your focus to one thing (one stimulus) at a time. In this analogy, each of the spotlight/sound devices represents an affect and the special signal represents the stimulus condition for that affect.

The mechanics of how the affect system creates focus on one stimulus at a time require a bit of explaining. When the sensory system—eyes and ears in the above analogy—detects a stimulus that meets certain criteria (the details of which are beyond the scope of this primer), that information is transmitted

to the face and then back to the brain. During this process the stimulus is *amplified*. It is amplification that causes sufficient brain activity to trigger conscious awareness of and focus upon that stimulus alone. In the spotlight/sound device analogy, the intensification of the light on a single actor and the turning up of his microphone represents the process of amplification.

I have gone into this brief description of the mechanics of affect amplification in order to once again draw attention to the significance of the face for affect psychology. For those with a strong interest in the science of the brain, I have included below two somewhat strange looking diagrams of the sensory and motor representations of the human body in the cerebral cortex. (These diagrams are called the homunculus; a word that comes from Latin and means “little man.” They were copied from <https://nahsanatomy.wikispaces.com/Nervous+system>; unfortunately, that website does not include information about who created this interesting version of the homunculus.) What these diagrams show is that the face has a greater representation in the brain than any other part of the body with the possible exception of the hand. This means that the information going back and forth between the face and the brain is so important that evolution granted the face a very large share of its cortical function. Charles Darwin was obviously on the right track paying so much attention to the facial expression of emotion amongst the different peoples of the world.



(a) Somatosensory cortex in right cerebral hemisphere

(b) Motor cortex in right cerebral hemisphere

Following Darwin’s lead, Tomkins carried out many detailed studies of the faces of adults and infants. He came to realize that each of the nine affects has its own, very distinct facial pattern. As we turn now to a description of the individual affects, the facial pattern of each will become an important way for you to begin to distinguish one affect from another. I encourage you to study the faces of people

you know, and even your own face in the mirror, if you want to get an even clearer understanding of affect. A number of my patients, especially those who have had difficulty recognizing affect in themselves, have had remarkable success increasing awareness of their affects by studying their own face in the mirror.

Affects come in three basic flavors—positive, neutral, or negative. *Positive* affects are *inherently rewarding* and we are motivated to do things to have them continue or get them back if they should be interfered with. *Negative* affects are *inherently punishing* and we are motivated to do things to get rid of them and avoid things that will have them return. The one neutral affect is just that—neutral—it does not motivate us to do much of anything. The nine affects—listed in their positive, negative, or neutral categories—are as follows:

POSITIVE AFFECTS:	INTEREST-EXCITEMENT ENJOYMENT-JOY
NEUTRAL AFFECT:	SURPRISE-STARTLE
NEGATIVE AFFECTS:	FEAR-TERROR DISTRESS-ANGUISH ANGER-RAGE DISGUST DISSMELL SHAME-HUMILIATION

As you can see, Tomkins used common, everyday words with the exception of the made up word *dissmell* to name the affects. All but two are best considered as being somewhat different in their upper and lower range of intensity. Rage, for instance, is clearly not simple anger, even though the difference is only one of intensity. Whereas mild disgust and intense disgust still feel pretty much like disgust.

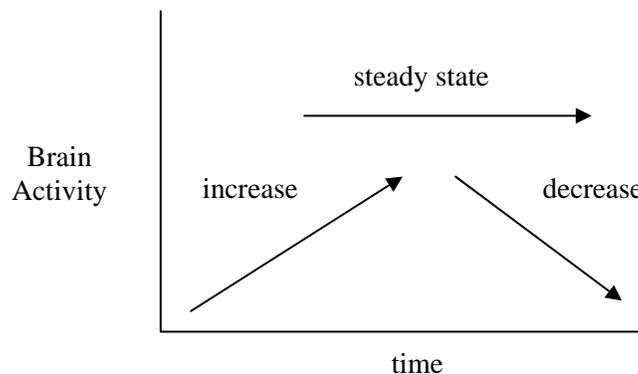
While I have yet to define the word “affect,” I hope that by now its general meaning is beginning to emerge. Here is a distinction that should help. When those of us who work with affect psychology say someone has a **feeling**, we mean that person has become aware of the biologic state that has been triggered in them, in other words they have become aware of their affect. Affects and the resulting feelings are inborn parts of our biology. We all have the *same nine affects*. We all “know” what fear, shame, joy, and anger feel like because we have all experienced the same thing when any of these affects is triggered.

From the time we are born, however, our innate affective responses begin to be altered into **emotions**. Every family in every culture handles affect differently. Anger in one family will be encouraged and in another suppressed. The more vulnerable affects like fear, shame, or distress are treated with compassion in some families and are scorned as weakness in others with responses like “big boys don’t cry” or “if you don’t stop crying, I’ll give you something to really cry about.” Emotion, therefore, is not innate like affect, it is learned. (Tomkins used the term **script** to describe the complex things that happen during learning.) Emotion is the result of our affective biography. It develops uniquely in each of us, scripted from our life experience with our affects, the responses of others to our affects, and our observations of the affects of those around us. As a result, we are all *different emotionally*. One person’s anger scripts may involve ranting, raving, and cursing like a sailor. While another person, just as angry, might simply raise an eyebrow. The bottom line is that affect = biology while emotion = biology + biography. (One

aspect of Tomkins’s genius was that he was able to unpack the unbelievable complexity and diversity of human emotion and unearth the nine building blocks of affect that are its foundation.)

Another concept is worth considering before tackling each of the nine affects in detail. It is not uncommon today to compare our brains to computers. From a functional standpoint, our brain is a “device” that gathers, analyzes, and stores **information**. The affect system is critical to this process. One way to think about the affect system is that its job is to simplify our task of becoming aware of important information. It sounds a bit strange but an affect is really information about information. Tomkins postulated that the evolution of the affect system followed the pattern of the information (stimuli) around us. As a result, each affect matches—or is analogous to—the pattern of the stimulus that not only triggers it but more than likely produced the need for such pattern recognition in the first place. Understanding these patterns is vital to understanding affect psychology.

When a stimulus is received in our CNS, the instantaneous response of the brain can only be in one of three patterns. As the graph below illustrates, there can be an increase, a decrease, or some level of steady state pattern of brain activity. (This is another oversimplification and more details can be found in *AIC* Vol. 1 pages 250-258.)

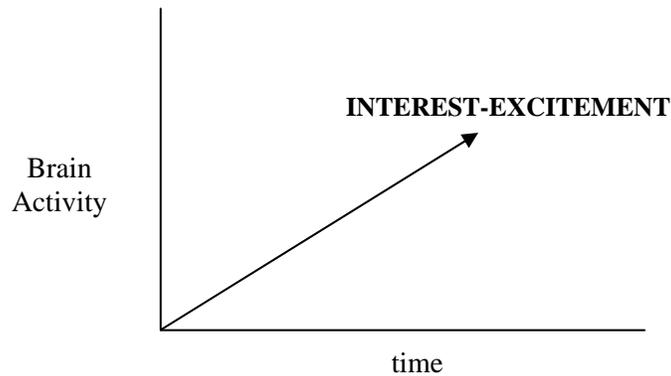


Because the concept of the similarity of the patterns of stimulus and affect to one another is vitally important to understanding how affects are triggered, the description of the individual affects will follow the pattern of these patterns. Each description will include a picture of that affect’s facial expression. There are thousands of words in our everyday language for feelings and emotions. Once one has a clear grasp of affect psychology, every one of those thousands of common words can be reduced to one of the nine innate affects delineated by Tomkins. The ability to do this makes understanding emotional motivation of self and other remarkably easy.

INCREASING RATE OF BRAIN ACTIVITY

INTEREST-EXCITEMENT:

Tomkins postulated that there must be some “ideal” rate of increase in brain activity produced by certain stimuli. This rate of increasing activity is fast enough to be noticed but not so fast as to be unpleasant. The affect triggered by any stimulus pattern producing this pattern of brain activity he named interest-excitement. Interest-excitement is a **POSITIVE** affect and is inherently rewarding. Here is the graph of this pattern:



Your daily life is filled with thousands of instances of mild interest being triggered by stimuli. They direct your attention from one task to the next. You seldom think about it unless some stimulus triggers the more intense end of the range of this affect—excitement—because throughout your lifetime you have become more or less unaware of the presence of mild interest. (This lack of awareness is the reason most researchers have completely ignored this very important affect for centuries.) Please keep in mind that each time a stimulus triggers an affect, the brain is immediately ready for the next affect to be triggered. As a result an innate affect lasts only milliseconds. To go back to the spotlight/sound device analogy: affects being triggered are like the spotlight/sound devices going on and off very quickly.

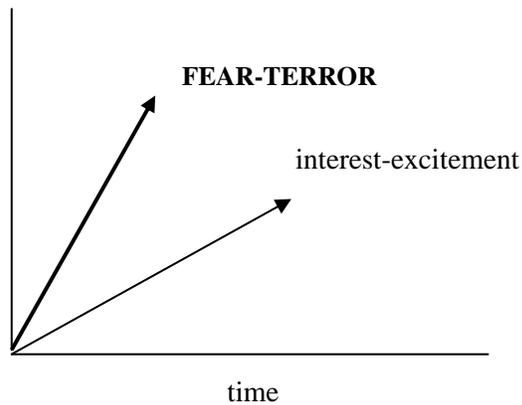
When **interest-excitement** is triggered **the eyebrows turn down and the face has a “track, look, and listen” appearance**. The affects are all visible on the face virtually from birth. Here are two pictures of my granddaughter Maddy. In the picture on the left, she is 22 days old and has had mild interest triggered. She is about 2 months old in the picture on the right and has had more intense interest triggered by the stimulus of her grandmother waving to her:



Novelty is the primary *stimulus condition* that triggers interest-excitement.

FEAR-TERROR:

When a stimulus has a pattern that triggers too rapid an increase in brain activity, in other words when too much is happening too fast, fear-terror is triggered. Fear-terror is the most toxic of the **NEGATIVE** affects and we are motivated to stop it as quickly as possible. It is inherently punishing. As you can see in the graph below, the rate at which brain activity is increasing when a fear-terror stimulus is perceived is much faster than when a stimulus for interest-excitement is perceived. The brain is clearly receiving two different kinds of information with these two affects.



One of the features of the affect system is that it does not care what the actual stimulus is. It only responds to the pattern of the stimulus. For instance, a lion at the zoo is something we do not see very often. In such a setting it is a novel stimulus and triggers interest-excitement. The same lion charging at us would trigger fear-terror because the stimulus pattern has changed. Note that anything and everything that triggers this same stimulus pattern will trigger fear-terror whether it is the charging lion, the car heading right for us, the howling winds of a hurricane, the robber pointing a gun at us, etc. In other words, the affect system is a very general system. It had to evolve that way so that stimuli did not have to be differentiated from one another before triggering the appropriate affect. If that had been the case, we would have had to think everything out before we could react and the human race would not have survived.

An interesting point about the difference between interest-excitement and fear-terror can be seen by studying the graph again. Note that at some point the lines representing interest-excitement and fear-terror might be very close together. This explains something we have all experienced: being afraid of something we were very excited about or, put another way, feeling excitement about something that we fear. Examples of this would include the feelings stirred up by riding a rollercoaster, watching a horror movie, the night before playing in the “big game” in some sport or that final interview for the best job in your life.

When **fear-terror** is triggered **the eyes become wide open and frozen. The face gets pale, cold, and sweaty and the hair, especially on the back of the neck, becomes erect.** Here is a picture of my grandson Collin on his third birthday. To celebrate, his mother has just ignited a little sparkler. She thought he would enjoy it; however, as you can see, he is so afraid that the fear has disrupted his interest in both his ice cream cone and his trains (and that is remarkable because he is really, really interested in his trains).

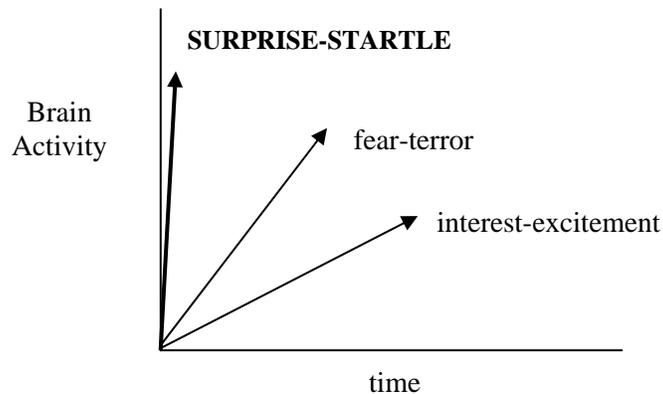


While his interest in ice cream and trains returned shortly after the sparkler burned out, this story provides a perfect lead into a brief sidetrack about one aspect of what Tomkins called affect dynamics. *Stimuli that trigger negative affect almost always prevail over stimuli that trigger positive affect.* In this

instance, when fear-terror was triggered, the sparkler took all his attention away from his interest-excitement and enjoyment-joy in food or toys and focused him on the feared object. The survival value of this dynamic is obvious. Stimulus conditions where too much is happening too fast are much more likely to be a danger to us than most other stimulus conditions. However, stimulus conditions that trigger distress-anguish, anger-rage, shame-humiliation, disgust and dissmell while less dangerous than fear-terror still have an element of danger to them. It is, therefore, usually prudent to turn away from interesting or enjoyable things to deal with the cause of the danger. That the affect system evolved in this manner clearly provided a survival of the species advantage.

SURPRISE-STARTLE:

This is the third and last of the innate affects triggered by stimuli that produce a pattern of *increasing* brain activity. This is also the only NEUTRAL affect. Its pattern is the same as the pattern of a sound wave created when a gun is fired or a storm creates a clap of thunder. There is a rapid increase then decrease of brain activity.



I cheated a bit in the above graph and drew only a single line going up to show the pattern of brain activity when surprise-startle is triggered. The line should go almost straight up and down, but that would be more difficult to show in this graphic format. *Surprise-startle* is a neutral affect that once triggered *resets* everything. It creates immediate attention to the triggering stimulus and clears away all else from consciousness. It is like the reset button on a computer.

When **surprise-startle** is triggered, *the eyebrows go up, the eyes blink and the mouth gets an O shape*. Here is Collin at 6 weeks. The camera caught his facial expression just after he had blinked. The eyes are still wide open and the mouth in the O shape.



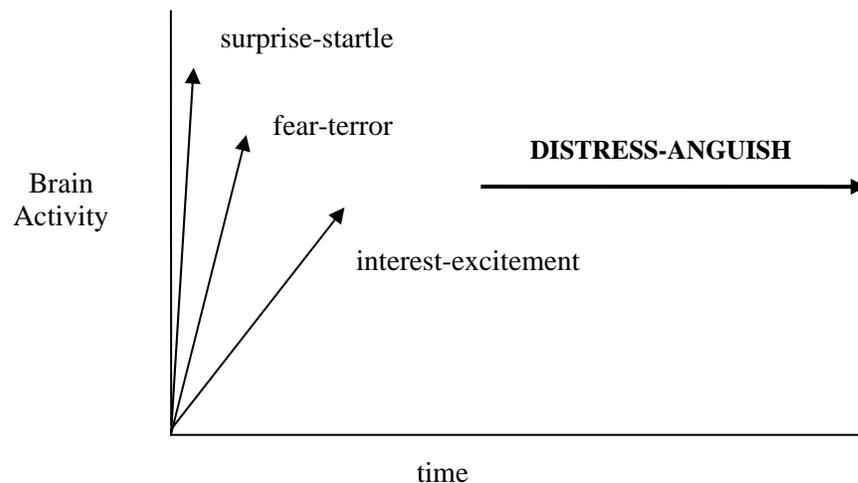
Look carefully at his face and notice that he does not seem either happy or unhappy. Surprise-startle is a neutral affect that is often quickly followed by another affect. For instance, if while walking down a dark hallway at night, someone unexpectedly tapped you on the shoulder, more than likely fear-terror would follow your startle. If the person were someone you knew, you would probably then get angry at them and yell “What are you doing? You scared me to death!”

Surprise-startle can also be followed by positive affect. Years ago I was watching the annual grand slam Wimbledon tennis tournament from the All England Club on TV. There was a rain delay and the camera panned back to show the entire upper tier of the stadium filled with spectators. Suddenly there was a flash of lightening and a clap of thunder very close to the stadium. As one, the crowd startled, immediately after which they all looked around and began to laugh. (In affect terms, they had a sudden decrease in brain activity triggering the innate affect enjoyment-joy, the details of which will be described later.) The point is that while surprise-startle is a neutral affect that clears consciousness in order to rapidly direct attention to the triggering stimulus, it is usually soon followed by another affect.

STEADY-STATE BRAIN ACTIVITY

DISTRESS-ANGUISH:

This NEGATIVE affect is *inherently punishing* and triggered by any stimulus that has a pattern that is too dense for too long.



The steady-state nature of the pattern of brain activity that triggers distress-anguish is represented in the above graph. (To all scientists and mathematicians: pay no attention to the various levels shown in any of my graphs. The graphs are presented to represent Tomkins’s concept of the innate activators of affect. To date no significant experiments have been carried out measuring the levels of CNS activity associated with the affects.)

Distress-anguish is triggered whenever there is an above optimal, steady-state pattern of stimulus density. What kinds of things might create such a pattern? Recently there was road work going on outside of my office which is no more than 30 feet from that road. There were many instances when the sound from the heavy-duty equipment was loud and constant. As you can imagine, this made it difficult to hear. My patients and I had to talk louder and concentrate harder to make ourselves understood. Distress-anguish was triggered in me and my patients during those instances when the steady-state intense noise

was at its loudest. (It is a poor advertisement for psychiatry when the patient feels more distress in the office rather than having distress relieved! Fortunately, everyone was very understanding.)

Noise is far from the only dense, steady-state stimulus that triggers distress-anguish. Much of what we do in our daily work provides steady-state stimulus density, especially when one must work continually throughout the day and the work is never completely finished. Other steady-state stimuli include such things as the need to urinate while stuck in traffic; the honking horns and stop and go nature of traffic at rush hour; constant thoughts of all we have to do on a busy day or during exam week; the persistent needs and demands of small children; the complaints of retail customers; and any condition or disease that causes chronic pain. The list could go on and on, but by now I think you have a pretty good idea of what is meant by a steady-state, above optimal stimulus.

The facial response indicative of **distress-anguish** includes **crying, tears, arching of the eyebrows, a mouth with turned down corners and rhythmic sobbing**. The next picture is of Maddy when she was about 2 weeks old. It is not a perfect picture of distress-anguish because I seldom wait around looking for the perfect face of any negative affect before picking her up, although her grandmother usually beats me to it. However, you can see the arching of the eyebrows and can assume from the pose that she was in distress and crying.



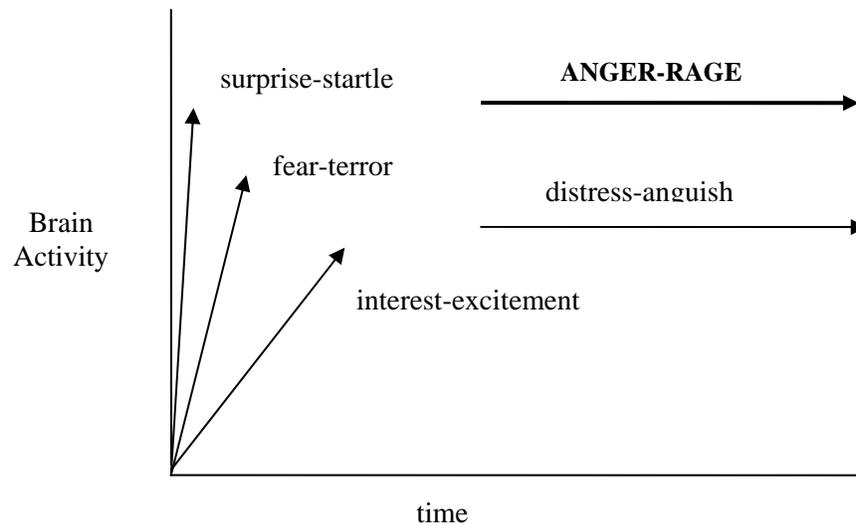
This might be a good time to make use of a mirror to study your own affect. With the mirror in front of you, try turning down the corners of your mouth and push your eyebrows together letting your forehead wrinkle as you do. You will feel your eyes shut partially. Did you notice that even if you were interested in this exercise, it did not feel good? Tomkins did a number of experiments asking subjects to answer a meaningless questionnaire after having them put their faces into this pose. When they were finished, he asked them what they thought about the questionnaire. Most said that although they could not put their finger on exactly why, there was something distressing about the questions. I have had actors tell me that in order to get into the mood called for by a scene; they will often set their face first to get the mood started.

Affect psychologists have a problem with the way the word “depression” is used by most people, especially mental health professionals who conceive of depression as a disease. Depression is best thought of as a syndrome with symptoms that often include fear, distress, anger, and shame, as well as reductions in the ability to experience interest and enjoyment. Brain research into causes and treatments for affect disorders would be remarkably more proficient were it informed by Tomkins’s affect psychology insights. However, what is usually meant by “depression” is that the person is experiencing distress-anguish. Because distress-anguish is triggered by stimuli that are steady-state and above optimal

for too long, it is often the case that one can discover chronic fear or shame as the underlying cause of distress-anguish. Treating “depression” is ineffective in such situations unless the fear and shame are addressed.

ANGER-RAGE:

This NEGATIVE affect is *inherently punishing* and triggered by stimuli that have a pattern that is steady-state and even more dense and above optimal than those that trigger distress-anguish.

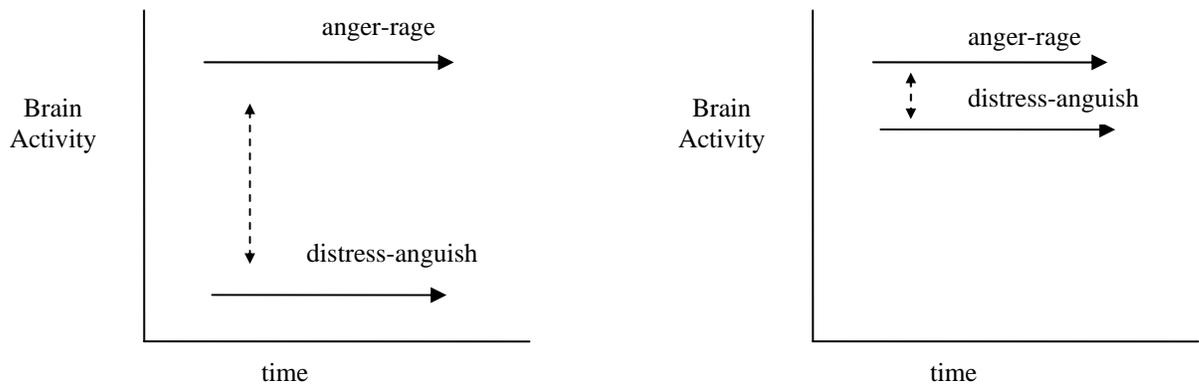


The line representing anger-rage in the graph makes it clear that stimuli that trigger it have a pattern that is much denser than that of distress-anguish. This creates a level of brain activity that is way too much. Anger-rage is the affect of overload. Imagine being stuck in heavy stop and go traffic on the way to work, with horns honking, with pressure building that you are going to be late for an appointment, with people calling your cell phone wondering where you are and asking questions that you can only answer from your desk. The very next thing that happens will probably trigger anger, not because you are an “angry” person, but because the stimulus density is too great.

I have suggested in lectures that if I lock most people in a room filled with very loud music of a genre that is not to their liking, virtually every one of them will soon become angry and pound on the door to be let out. Again, this is not because they are angry people, it is the overly dense pattern of the stimulus that produces overload and triggers their anger-rage. The important point is that affects are triggered by stimulus conditions in a reflex manner. We can alter stimulus conditions, but once we experience a particular stimulus condition, a specific affect is going to be triggered. We cannot stop the triggering of that affect any more than we can stop our knee from jerking when the reflex hammer hits the proper spot on the tendon. It is for this reason that I believe the widely held notion that certain people are “angry” people is inadequate and better explained once one has a working knowledge of affect psychology. While it is true that there are people who become angry much more easily and quickly than others, this is often because something has caused in them a chronically high level of distress-anguish. It, therefore, only takes minor additional stimuli, things that would never trigger anger in someone with normal levels of distress-anguish, to trigger their anger.

A common example of this is found in many of the people who are diagnosed with “depression,” one of the classic symptoms of which is “irritability.” In other words, anger-rage is triggered in them easily and often. As noted in my discussion of distress-anguish, so called depressed people have a chronically

high level of distress-anguish, often for biological reasons. Below is a graphic representation of this idea. The shorter distance between the vertical dotted lines in the graph on the right implies a smaller amount of additional brain activity is necessary before anger-rage is triggered. In other words, little things can trigger angry very easily.



The facial response when **anger-rage** is triggered is one we all recognize. **The face becomes red, accompanied by a frown and a clenched jaw.** A colleague took this picture of her son when he was less than two months old:

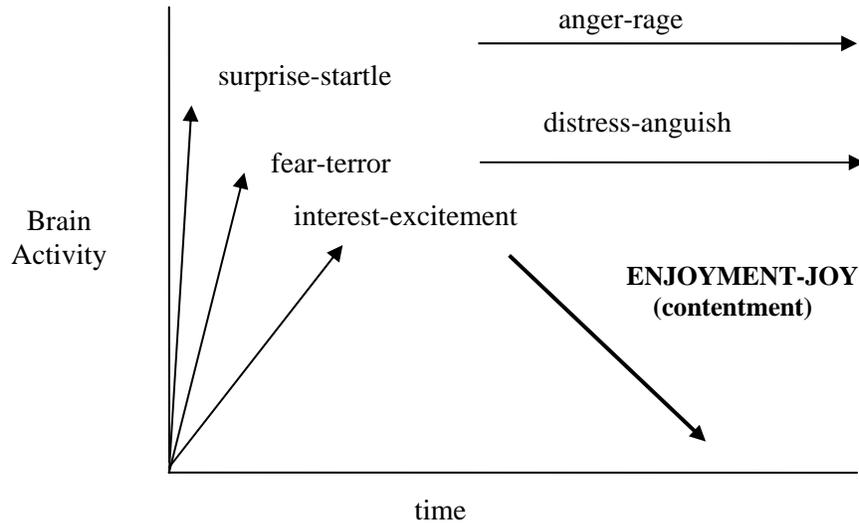


Unfortunately (or fortunately) I took no pictures of Maddy or Collin that demonstrate anger-rage in infants. Now they are too old and only pose before the camera because they are so accustomed to their grandfather pointing it at them. But even if I did catch them in a moment of anger at their current ages of 7 and 4, their faces would probably not show the “pure” affect of anger-rage. All children begin modifying their expression of innate affect very early in life. These changes are a part of what Tomkins called “script” formation. Scripts are part biology and part a process of learning from all that goes on around us, especially from a child’s observations of the way the adults in his life express affect and respond to his expression of affect. It is script formation that leads to what I earlier defined as “emotion.” Scripts are a mechanism we use to simplify experience and our responses to it. It is beyond the scope of this current description of the affects to delve further into the fascinating and ever so important realm of scripts. However, scripts can complicate the detection of affect. For instance, anger is difficult to ascertain in the person who has learned to simply clench his fists when angry; as opposed to Collin who used to throw himself on the floor and scream.

DECREASING RATE OF BRAIN ACTIVITY

ENJOYMENT-JOY:

It may seem strange at first to think of brain activity decreasing, but take a look at the graph below and the position of the line representing enjoyment-joy.



Enjoyment-joy is a POSITIVE affect that is *inherently rewarding* and triggered by any decreasing stimulus pattern that causes an analogous decreasing pattern of brain activity. As you may have already guessed from looking at the graph, some above zero level of brain activity must be taking place before a stimulus can trigger enjoyment-joy. For example, you get home after being stuck in traffic for several hours with the pressing need to urinate bothering you the entire time. Needless to say, you are experiencing the steady state brain activity that triggers distress-anguish. Emptying your bladder ends your distress and causes a decrease in brain activity that triggers enjoyment-joy or contentment.

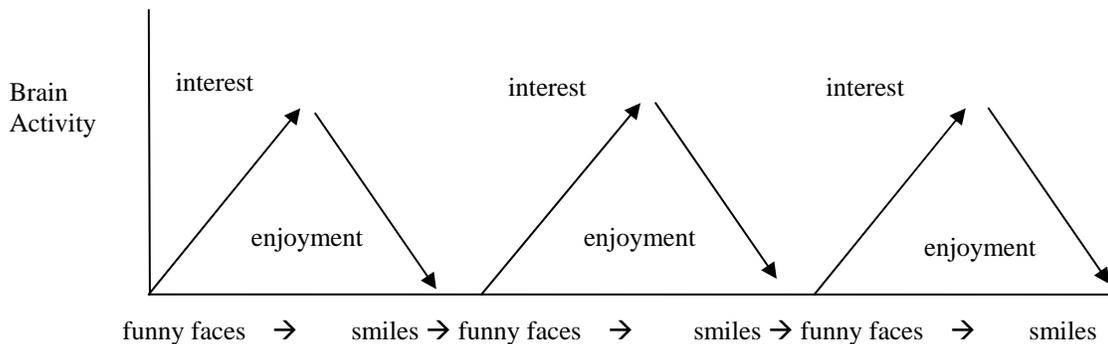
Here is another example. Someone begins telling you a joke. If you have never heard this joke before, in other words only if it is novel (the primary stimulus condition for interest-excitement), your brain begins to work to try to follow where the jokester is heading, increasing the level of brain activity and triggering interest-excitement. When the punch line is reached and you “get” the joke, there is a split second of surprise-startle, and then no more need to think about it. The subsequent decreasing level of activity triggers enjoyment-joy. If there is a very rapid decrease in activity, usually associated with the cleverest jokes, then the laughter of joy follows. If the joke is simpler, like a pun for instance, then there is a less steep decrease and something more like the amusement of enjoyment is triggered. As these two examples indicate, the triggering of enjoyment-joy is always preceded by another affect that can be either positive or negative.

The face of **enjoyment-joy** is a pleasure. There is **a smile and the lips are widened up and out**. I have thousands of pictures of my grandchildren experiencing enjoyment-joy. Reluctantly, I include only two: one of Maddy at age 2 ½ months (left) and Louisa at 5 months:



Even though I have seen these pictures many times, I cannot help but smile back. Did you smile too? It is not just because they are so beautiful—the biased opinion of the grandfather—but we smile because *affect is contagious*. It has been said that the ability to smile between the ages of 6-8 weeks saves the life of each child. Up until that time, the task of the caregiver is primarily one of responding to the baby's cries of distress-anguish that trigger distress-anguish in the caregiver. Before 6-8 weeks, the reward one receives for taking care of whatever is causing distress-anguish in the baby is that the baby, when relieved of hunger, wetness, or whatever else might have triggered distress, has a decreasing rate of brain activity that triggers enjoyment-joy (contentment). Contentment in her baby relieves distress-anguish in the caregiver and, therefore, also triggers enjoyment-joy (contentment) in her. This can be short-lived if the caregiver is exhausted because exhaustion is a steady-state stimulus that also triggers distress-anguish.

However, once the infant's CNS matures sufficiently to allow for a full fledged smile when enjoyment-joy is triggered, the reward for anyone who sees the smile is that, by the mechanism of affect contagion, they too experience enjoyment-joy. This is so rewarding that it generates interest-excitement in seeing the baby smile over and over again. As a result, one does all kinds of funny, interesting things—such as making “faces” at the baby or playing hide and seek—in order to trigger the smile again. This is the starting point of what I call the second “social” script. If one were to graph this sequence, then both the baby and the face-making adult would have a pattern like this:



The alternating of interest-excitement and enjoyment-joy is the basis of the most pleasurable times in our lives. A technical note: it is important to remember that an innate affect, once triggered, only lasts for a short period of time. (The spotlights flick on and off rapidly.) Therefore, for a “pleasurable time” to last, some stimulus condition that continually retriggers interest-excitement must be present. In the caregiver-infant sequence represented by the above graph, the stimulus is the caregiver's ongoing interest in the baby that by repetition establishes a pattern (or script) in the baby to enjoy and have interest in the

caregiver. This is a “social” script because it forms in the baby only in the presence of other people, it is, therefore, an interpersonal event. If successful—and except in extremely unfortunate circumstances, it usually is—the child will have a script that makes her interested in positive (inherently rewarding) relationships with others for the rest of her life.

I call this the “second social script” because what I call the “first social script” begins at right at birth. It is a pattern learned from multiple repetitions of the sequence: distress-anguish in baby triggers distress-anguish in caregiver, motivating caregiver to relieve distress-anguish in baby hence triggering enjoyment-joy (contentment) in both. The result of the repetition of this sequence is that all of us learn that people relieve our distress and are a source of enjoyment (contentment). These two social scripts, critical for the ability to form interpersonal relationships and emotional connections with others, evolve because we have inherited an affect system that is the primary motivating force behind all human behavior.

THE FINAL THREE AFFECTS

Tomkins postulated that the six affects already described evolved in response to stimulus confusion. They simplified human experience of the surrounding world and enhanced survival ability. The final three affects probably appeared somewhat later in our evolution, but they too were a response to problems whose solution was necessary for survival. The first two deal with issues related to hunger drive and are the only affects for which Tomkins did not feel it was necessary to describe a range. Hence, they are defined as single words:

DISGUST:

This NEGATIVE affect is *inherently punishing* and provides us some protection against eating poisonous or rotten food. Of course, some things that are poisonous do not taste bad or cause a reaction in the stomach that triggers vomiting. However, many things that we should not ingest are foul tasting or caustic to the stomach lining. When this stimulus condition is met, disgust is triggered. Tomkins in *AIC* Vol. I page 50 describes disgust as “a built-in rejection mechanism specifically designed to enable the individual to avoid or eject food.”

The actions of the head and face when **disgust** is triggered involve **a forward movement of the head, a protrusion of the tongue, and a pushing down of the lower lip**. If the response is very intense, then vomiting occurs. I do not know the child in the next picture which was loaned to me by Don Nathanson and appears in his book *Shame and Pride*. However, the disgust on her face is obvious.

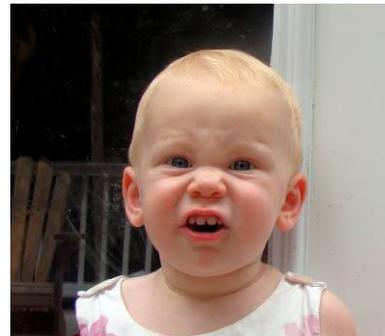


While disgust originated simply as an accompaniment for hunger drive, it becomes a powerful force in our lives. For instance, we can be disgusted with the behavior of another person or ourselves or whole groups of people. Disgust for one another is often found in people who are getting divorced. The person one fell in love with—took into one's heart—and committed oneself to has now turned unacceptable and "rotten." The disgust comes from the need to rid oneself of the good feelings that have turned bad and remove them from one's life.

DISSMELL:

This NEGATIVE affect is *inherently punishing* and is the only affect for which Tomkins needed to invent a new word. It is the automatic response we have when we smell something rotten, like rotten milk or fresh feces or decaying organic matter. **Dissmell** is triggered when the smell stimulus reaches the brain and **the head draws back and away and the upper lip wrinkles**. If triggered by rotten milk, no matter how hungry or thirsty you are, dissmell will make it extremely unlikely that you will drink that milk.

The picture below on the left was also loaned to me by Don Nathanson from *Shame and Pride*. The baby on the right is my granddaughter Louisa at age 13 months. She has just smelled a dirty diaper.



Dissmell becomes an important force in our lives. First of all, no one wants to be considered "a stinker." For this reason there is a massive industry in deodorants and deodorizers of all kinds. We become embarrassed if our houses or our bodies stink, and most people go to great lengths to prevent that from happening. Furthermore, dissmell is the affect central to the formation of racial and cultural prejudice.

Disgust and dissmell evolved as protections against hunger drive. Once triggered, they act as *impediments* to the drive and prevent us from harming ourselves by eating rotten, spoiled, or poisonous substances. The ninth and final affect to be considered is shame. It also relates to the idea of impediment, but in a way that will initially seem hard to digest.

SHAME-HUMILIATION:

A clear understanding of the exact mechanism by which shame is triggered is critically important for anyone who wants to penetrate the complexities of human personality, especially the nature of interpersonal relationships. To do so, it will be necessary to suspend momentarily your current notion of what shame is. Since it is not easy to change a lifelong way of thinking about shame, it might help to pretend I am defining something entirely new, something you have never heard of before. The new definition will not cause you to leave behind all of what you already know, but it will give you a new

concept (by a paradigm shift) of how shame originates in all of us. It is important to remember I am discussing an *innate affect*, the way shame begins in us very early in life.

The stimulus conditions that trigger shame will seem somewhat strange at first. Most people—and I include myself in that group—have intuitively resisted believing Tomkins’s conceptualization that how shame is triggered has anything at all to do with shame. This is because common adult thinking about shame is based on the narrow view that feeling shame only happens when someone does something to “be ashamed of.” This, as you will see, turns out to be only one form of shame. The innate affect shame begets an entire family of emotions of which being “ashamed” is only one member. If you have difficulty—and initially you will—grasping the concept of how innate shame is triggered, it is because you are still thinking that the word shame only refers to feeling ashamed of something you said or did. If you can suspend that idea as you read on, I believe you will find this new conceptualization of shame very interesting and ultimately quite useful.

Shame-humiliation was the last of the affects to evolve. As is the case for many aspects of our evolution, shame-humiliation evolved because there was a problem. The best way to describe the problem is to think of the function of the affect system. It records general information about and makes us aware of certain stimulus conditions. Shame-humiliation came after the system already had the ability to record and make us aware of stimulus conditions in the form of five negative affects (fear, distress, anger, disgust, and dissmell), one neutral affect (surprise), and two positive affects (interest and enjoyment). What additional information did the early members of our species need? They did not need more information about the negative affects. Since fear, distress, anger, disgust and dissmell are inherently punishing, they are already sufficiently motivating for us to do things to get them to stop. Nor did our ancestors need further information about surprise-startle. This affect is neither inherently punishing nor rewarding. It is like a computer’s reset button that rapidly clears the system and prepares us for whatever comes next.

The positive affects, however, were another story. Because they were inherently rewarding, once triggered, they motivated behaviors to have them continue. The evolutionary demand for a new affect arose because there were times when interest-excitement or enjoyment-joy became blocked, impeded, or interfered with by something. Please note carefully that I am not describing situations where the stimulus conditions triggering interest or enjoyment no longer existed and, as a result, interest and enjoyment came to a natural end. Instead I mean situations where stimulus conditions for the triggering of positive affect were still present for our forbearers, but a conflicting stimulus condition arose that blocked the positive affect.

Here is an example of the difference in these two situations: imagine you are waiting in your friend’s car while she is in the supermarket. Your interest is triggered by something you see and your attention (conscious awareness) is directed to the children in the playground across the street. You see that they are playing a game you have never seen before. The novelty of the game triggers more interest. After several minutes, you figure out the game they are playing. The children keep playing but repeat the same actions over and over again. The game, therefore, loses its novelty and your interest diminishes and soon there is a natural termination of the stimulus conditions for interest-excitement and that affect simply stops. Because the stimulus has ceased, you are no longer motivated to direct your attention to the game.

It is an entirely different matter, however, if you are still interested in figuring out the game but a large delivery truck pulls between you and the playground, completely blocking your line of sight. Your *ongoing* interest is now *impeded* by the truck, and you experience a negative feeling. The intensity of the negative feeling is in direct proportion to how interested you were in the game. If you were very interested, then you feel a strong negative feeling that might even motivate you to get out of the car and move to a place where you can see the playground again. As surprising as it may seem, this negative feeling—a feeling that you might call disappointment or frustration or annoyance or maybe even anger—Tomkins recognized as the signal that the innate affect shame-humiliation has been triggered. He believed that we evolved shame-humiliation as information about the stimulus condition of ongoing positive affect

being interrupted when we did not want it to be. This was and is critical information for us to have. *Without the innate affect shame-humiliation, we would not be motivated to take action when we are deprived of interesting and enjoyable things.*

Earlier I described the difference between affects, feelings, and emotions, emphasizing that emotions are the result of biography—our life experience with each of the affects. Although this is not the place to go into much detail about the *family of emotions* that shame gives birth to, it might help clarify the function of shame affect if I mention a few. When an impediment blocks our interest in something, the resulting shame can feel like: frustration or disappointment (I can't do what I want to do); rejection (my interest in my lover is blocked because she doesn't want me anymore); loneliness (my interest in people being interested in me is blocked because I'm all by myself and cannot find a date); feeling ashamed or embarrassed (my interest in people seeing me as perfect and loving me is blocked because I said a stupid thing or did something awful or have a blemish on my face and everyone will find out); and at its most intensely negative, mortification (what happened is so awful that my interest in living is blocked).

While the last of these emotions is life-threatening, it is still information that permits us to re-evaluate what has happened. It would be a sad state of affairs if we were not motivated to remove impediments to our interests. Research scientists, professional athletes, great musicians—as well as you and I—have all experienced roadblocks to interest in advancing our knowledge and skills. Those who can use the information from shame, find the impediment and remove it, can all move forward. Likewise, if we were not motivated to pursue enjoyment when it encounters impediment, our lives would be completely different and much less fun. It is, therefore, easy to conceive of why such an affect evolved and became part of our innate, inborn endowment. Because Tomkins had a remarkable ability to mentally coordinate massive amounts of information, including Darwin's theories of evolution, and draw conclusions about our most fundamental nature, he saw that all of the shame family of emotions had a single source, the innate affect shame-humiliation. And he identified that the stimulus condition for its triggering is ***impediment to ongoing positive affect***. As long as we are interested in something or are enjoying it, anything that gets in the way and interferes with it will trigger shame-humiliation.

That shame has been triggered is not always obvious because everyone develops defenses against its unpleasantness. When successful, these defenses become second nature and are activated so rapidly after shame is triggered that most of the time we do not recognize or feel the presence of shame. One of the exceptions to this is when the most easily recognizable forms of **shame-humiliation**, such as feeling ashamed or embarrassed, are experienced. In these feeling states, shame and its facial response are obvious; **the eyes are diverted down, the head slumps to the side as the muscles of the neck go limp, and we blush**. The pictures that follow are also courtesy of Don Nathanson. The baby on the left is unknown to me but appears to be less than six months old and shows clearly that the affect shame-humiliation is present from an early age. About the picture on the right, Nathanson says in *Shame and Pride* page 135: "Here shame interferes with this baby's ability to remain interested in the toy. Was the kiss intended to pull the baby out of its slump, or was it the trigger for shame-humiliation?"



The final pages of this Primer reflect an attempt to challenge what is most likely your current view of shame as a feeling that **only** occurs when someone has done something “to be ashamed of.” I ask only that you keep an open mind as you think about the following three common, everyday examples of situations in which the innate affect shame-humiliation is triggered. On reflection, I think you will agree that in each example shame-humiliation is triggered but none of the people involved have done anything to be ashamed of. The first example is one used by Tomkins in *AIC* Vol. II page 123 and paraphrased by Nathanson in *Shame and Pride* page 134 as follows:

“Recall, asks Tomkins, all those times you have seen an old friend at a distance and waved vigorously to get his or her attention. When that other person gives us the smiling face of recognition we are rewarded by a surge of pleasure. But occasionally it turns out that we had hailed a stranger, having been fooled by an unexpected resemblance.

The moment we recognize our error something surprising happens to us. Although one might think all we need do is maintain our composure, nod politely, and ask this person to excuse the intrusion, before we can get the words out of our mouths something else has taken place. As soon as we have seen the face of the other person our own head droops. Our eyes are cast down, and, blushing, we become briefly incapable of speech. Sometimes a hand goes unbidden to the mouth as if to prevent further communication, and we feel a surge of confusion.”

Here is how affect psychologists interpret this situation: if the person had been our old friend, there would have been a lovely flow of positive affect between us. Interest in the other person’s life and their interest in ours, enjoyment at learning the new things happening for each, and positive feelings of shared memories would have created an enjoyable few moments together. However, the instant of awareness that we do not know this person acts as an impediment to all the anticipated positive affect and shame is triggered as evidenced by the drooping of the head, the eyes being diverted, and the blushing, stumbling attempt at speech. I think you can agree that this is a situation where no one did anything shameful or to be ashamed of. Someone has simply made an honest mistake. No one has committed a serious social faux pas. In fact, it would have been more socially inappropriate or “shameful” to ignore someone we thought to be an old friend.

The reaction of the person who came at our summons is also noteworthy. They too cast their eyes to the side, head drooping in an obvious moment of shame at the instant of awareness we do not know one another. Has this person done anything socially inappropriate that they should be ashamed of? No. In fact, it would have been a social faux pas (shameful behavior) if they had ignored our summons, walking away rather than approaching a smiling person signaling them. The reason this person has shame triggered is that, thinking they were being summoned by somebody they might know, they too had their interest piqued but then that interest was also blocked at the moment of clear awareness that we are strangers.

Neither person in this scenario has any reason to feel ashamed of their actions. Instead, both have simply had an experience of a potentially positive interaction being impeded. Most of us have probably been in such a situation and recognize that the mild shame triggered we would be inclined to refer to as embarrassment, an embarrassment we might well chuckle at later in the day, amazed that the stranger looked so much like one of our friends. In other words, the shame triggered by the event would be no big deal. Instead, it is simply information from a normally functioning affect system that positive affect—something we want to have and to have more of—was interfered with.

My second example of an impediment to positive affect triggering shame, that perhaps even more undeniably has nothing to do with someone committing a shameful act, is about a scene familiar to all who have observed small children. As mentioned earlier, novelty is the primary stimulus condition for triggering the affect interest-excitement. No one experiences more novelty than the very young. After they begin to develop a relationship with their caregivers, they have a very natural interest in people. At

some point all normal kids develop a reaction that has been known for years as stranger anxiety.* One manifestation of this occurs when a toddler, brimming with interest, approaches a person but suddenly becomes aware that this is someone unfamiliar. The toddler turns away, heading back to mommy or daddy to perhaps grab a leg and bury their head in that safe place. Since my introduction to affect psychology, I have been studying such reactions from a new perspective. I hope you will do the same. Look carefully at the child. He or she has not just buried their head in mommy's leg, the head droops as well, and the eyes have been averted away from the stranger. If you look very carefully at the right moment, you might catch sight of a blush on the face of the child, making it even more apparent that shame has been triggered. Her caregiver may even say something like "She's going through a shy period right now."

I cannot imagine anyone who would argue the case that the child has done something to be ashamed of or for that matter that such a young child even knows yet what it means to be ashamed. So why does he or she have shame? Again, this is a situation where the stimulus condition is that of *impediment to positive affect*, and that child, like all the rest of us, was born with an innate affect whose job, if you will, is to give us that very information. The child's great interest in people has been blocked because this is a stranger and she or he does not yet have in place scripts for dealing with strangers. Some time later, when an "I know what to do with a stranger" script is present, the child might well engage the new person in active play or conversation and have a very positive experience.

The child's shame reaction is best thought of as another example that from birth we are "hard-wired" to feel bad when something or someone we are interested in or are enjoying is withheld from us. I think you would agree that this is very useful information for us to have available, even if it does not feel good. It is somewhat ironic that in order to be made aware that we are missing something that feels good we have to feel bad, but it makes sense when you think about it. Would we pay attention to the thing that was feeling good initially but was then blocked by some impediment if the feeling that replaced it was another good feeling? I do not think so. Evolution has provided us with a mechanism that is very effective. I like to think of the problems caused by shame—and there are many—as side effects of its function just as the many problems caused by our immune system such as allergies, lupus, or rheumatoid arthritis are side effects of its function gone awry.

The third example of a situation where shame is triggered but no one has done anything shameful involves two lovers. Imagine for a moment one especially beautiful day in spring that finds one of the lovers in a romantic mood, experiencing sexual interest-excitement at the thought of an evening's tryst. When the lovers finally meet at the end of the day, the first lover rushes to the other, declaring the desire to fill the evening with sexual pleasure. The other lover admits to having felt the same sexual feelings earlier in the day but adds that for the last hour or two she or he has had chills and nausea. As the first lover peers carefully into the face of the beloved, it is clear from the pale, washed out visage that there is absolutely not going to be any sexual activity that night, the beloved has the flu. Along with this realization comes a brief moment of a negative feeling in the first lover who might describe it as a feeling of rejection, even though the second lover has done nothing of the sort. In fact, the first lover may well be the one who decided he or she wanted to avoid getting the flu. Either way, the negative feeling is the result of shame having been triggered because the one lover's flu is an impediment to and has seriously interfered with the other lover's sexual interest-excitement.

In the case of our lovers there was no actual rejection by the sick lover, nor did the feeling of rejection stem from any sexual hang-up. It was simply a matter of an impediment to positive affect triggering shame. For true lovers the moment would quickly pass. The sexual interest-excitement of the first lover would be replaced by interest in the well-being of the other and perhaps the preparation of a large pot of chicken soup. Any feelings of rejection would be gone and all but forgotten, leading to no

* Anxiety is another overly general term that can refer to one or more different affects. At times it is used to refer to fear, at others distress or shame. Affect psychologists dislike the term anxiety because it is so lacking in specificity that its use causes a great deal of misunderstanding in research and interpersonal communication.

future repercussions. Perhaps the two would even have a good laugh later on about what a great evening it would have been if only the flu had not intervened.

I suspect that the three examples above may not have fully convinced you that shame is more than just feeling ashamed. If your interest in learning more about shame and the shame family of emotions has been stimulated, I again suggest you read Nathanson's in depth exploration of the topic in *Shame and Pride*. It is my hope that you have at least begun to consider that shame is an innate biological mechanism to make us aware that good feelings have been blocked. It seems only logical that we would have evolved a mechanism to serve this function. Without the information that something is blocking our interest or enjoyment, we would be unable to either achieve or maintain a healthy balance between positive and negative emotion.

PARTIAL SUMMARY OF AFFECT SYSTEM FUNCTION

- 1) Part of normal brain function evolved to reduce stimulus confusion.
- 2) Nothing becomes conscious unless an affect is triggered first.
- 3) Each affect is triggered by a specific stimulus condition or pattern.
- 4) Affect is information about stimulus conditions.
- 5) Positive affect is inherently rewarding, negative affect inherently punishing.
- 6) The NINE innate affects—POSITIVE * NEUTRAL * NEGATIVE—are:

INTEREST-EXCITEMENT	FEAR-TERROR DISTRESS-ANGUISH ANGER-RAGE
SURPRISE-STARTLE	
ENJOYMENT-JOY	DISGUST DISSMELL SHAME-HUMILIATION

CENTRAL BLUEPRINT FOR MOTIVATION

One very important feature of having an affect system with inherently rewarding and punishing affects, combined with our capacity to analyze things, our ability to remember things and our ability to create mental (not visual) images of what we want is that our brain has evolved a blueprint for motivation. This blueprint contains four rules that work together like four sections in an orchestra, one sometimes more prominent than the others depending on circumstances, but all always playing. They are:

- 1) Positive affect should be maximized,
- 2) Negative affect should be minimized,
- 3) Affect inhibition should be minimized,
- 4) The power to maximize positive affect, to minimize negative affect, to minimize the inhibition of affect should be maximized.

When circumstances in our lives hinder our ability to follow these rules and we either have to ignore one of them completely or overemphasize one at the expense of the others, there is a significant reduction in the quality of our lives and our relationships.