

Chapter 3

Shame as a Functional and Adaptive Emotion: A Biopsychosocial Perspective

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Abstract This chapter concentrates on emotion as the essential ingredient for human experience and primary motivating force behind all behaviour: All emotion is thereby both functional and adaptive, not something troublesome that needs to be brought under control. Also shame, one of the negative self-conscious emotions, is then by definition both functional and adaptive. This chapter starts by providing a theoretical synthesis of several old and current emotion theories into what is called a bio-psychosocial model of emotion. This means that emotions have a biological element, an intra-psychological element as well as a social element. Especially the social element of emotion translates directly into social behaviour and thereby forms the basis of the functionality of emotion. The position of shame is then clarified vis-à-vis other negative self-conscious emotions, amongst others by considering the difference between shame, guilt and embarrassment and the typical ways people react to these three. From here on the focus shifts to shame, probably the least understood emotion and one which also has a huge impact on people's functioning. The whole chapter focuses on emotion and shame in terms of that which all cultures largely have in common rather than on cross-cultural differences, which is the subject of later chapters.

3.1 Introduction

Before dealing with shame specifically, it is wise to put it into perspective in its wider context, that of emotion. Emotion could be seen as something troublesome that needs to be brought under control, yet this is a rather limiting perspective. It is only when emotion is seen as adaptive, functional and that which gives meaning to an individual's life, that how it influences learning, behaviour and (psychological)

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© Springer International Publishing AG 2017
E. Vanderheiden and C.-H. Mayer (eds.), *The Value of Shame*,
DOI 10.1007/978-3-319-53100-7_3

functioning may be appreciated. From this general point of view on emotion, shame is considered. Shame is probably the least understood emotion, yet one which also has a huge impact on people's functioning.

This chapter focuses on emotion and shame in terms of that which all cultures largely have in common rather than on cross-cultural differences. To begin, emotion will be placed into perspective by providing a biopsychosocial model of *behaviour*. Then a theoretical synthesis of several old and current emotion theories is provided as a biopsychosocial model of *emotion*. This then lays the basis for the concept of *functionality* of emotion, which in essence fits well with the principles of positive psychology: Seeing things in terms of the possibilities they create rather than their impossibilities. Using this biopsychosocial model as point of departure, the position of shame vis-à-vis other negative emotions is then clarified, as are the self-conscious emotions, moral emotions, etcetera. The chapter then directs its attention to shame itself, paying particular attention to the difference between shame, guilt and embarrassment and the typical ways people react to these three.

3.2 A Biopsychosocial Model of Behaviour

The word emotion comes from the Latin word *emovere*, which literally means to “out move”—that which causes someone to move. Emotion is therefore the foundation from which people *act*. A natural starting point is therefore to consider behaviour, for which a model proposed by Watkins (2013) will be used, adapted and slightly adjusted to fit the terminology generally used in the field of psychology. In his model, behaviour is like the roof of a building and the building represents the person's behavioural skills. Generally people think that having the necessary skills is sufficient to demonstrate adequate behaviour. However merely having a skill will not guarantee it will actually be used.

Before demonstrating a particular skill, the person needs to believe that applying it will have the desired effect. This requires confidence in one's own ability, the so-called *self-efficacy* (Bandura 1977). Being a belief places self-efficacy in the cognitive (or thinking) domain. Whereas skills and behaviour are visible, cognitions aren't. They are under the surface and form the first cellar of the building as depicted in Fig. 3.1. In other words, the way one thinks influences which skills are actually deployed and thereby one's behaviour.

Thoughts and beliefs don't occur in a vacuum, however. They are coloured by the way a person feels, both how he or she has felt in the past as well as in the here-and-now. The second cellar is therefore the constant ebb and flow of ever-changing feelings. A person needs more than only think he or she can do something, he or she also needs to feel it. And that feeling is emotional more than cognitive. Also one's mood will determine which skills one chooses to implement and which not. This is why there are more arrows from the emotional landscape to the cognitive domain than from thinking to feelings: How one thinks does influence

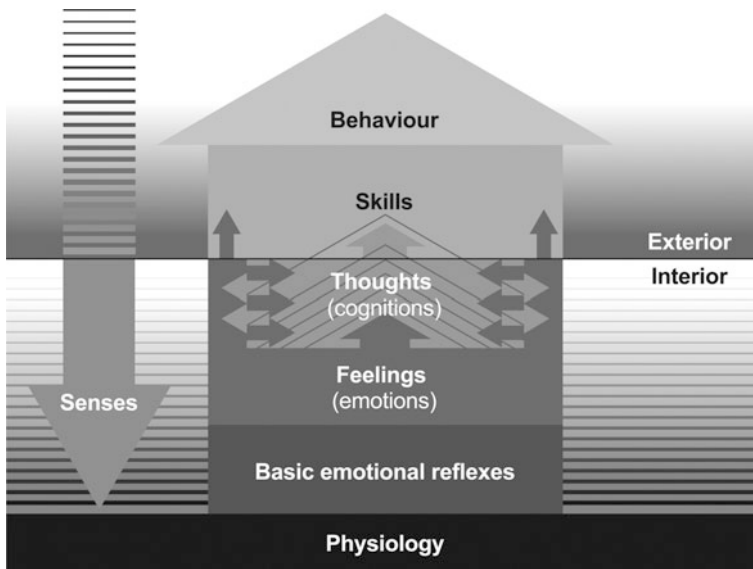


Fig. 3.1 Pieter Houtekamer: a biopsychosocial model of behaviour (adapted from Watkins 2013)

how one feels, but nowhere nearly as strongly as the other way around. And self-esteem, self-confidence and mood even directly influence (how and how well) one is able to execute the skills at one's disposal.

This doesn't yet complete the picture, though. What causes these feelings to constantly change will be dealt with to some depth in the next paragraph. In brief, this is due to basic emotional reflexes: The human body is wired to react in a certain way, whereby a person actually feels his or her feelings physically. These basic emotional reflexes form the third cellar under the building. And under this third cellar the foundation may finally be found: The physiology. It is via the senses (sight, hearing, smell, taste and touch) and via the body that stimuli, transformed into electrical, electromagnetic and biochemical signals, trigger the basic emotional reflexes. And these stimuli are the things that are encountered in the outside world.

This completes the circle: Behaviour elicits a reaction from the environment, which is perceived via the senses, leading to electrical, electromagnetic and biochemical changes in the body. These in turn trigger basic emotional reflexes, which bring about change in the emotional landscape, resulting in the experience of a feeling. This feeling affects the cognitive apparatus and which skills one chooses to implement, again influencing behaviour.

What is then meant by a *biopsychosocial* model of behaviour? The term biopsychosocial comes from a broader paradigm as how to view the human being. For example, in the medical model it's all about the body and the body can be seen as a machine: Function and dysfunction are the result of a properly or improperly

running machine (the body). The biopsychosocial paradigm takes a more holistic view. By no means a new view, as Tomkins already worked using this perspective in the 1950s (Tomkins 1995). The paradigm regained popularity towards the turn of the century with proponents such as Kiesler (1999) suggesting mental health should be viewed more broadly than merely from point of view of the medical model. In this biopsychosocial paradigm, human experience is the result of an interaction between three areas:

- biological;
- psychological and
- social.

Both positive and negative experience arises due to changes in one or more of these areas. However, the interrelatedness of these areas sees to it that any change in one area automatically induces change in the other two areas. Human experience therefore is the result of both the *operation of* and the *interaction between* these various arenas.

To translate the model of behaviour into these three areas: The biological area is represented by the senses, the physiology and the basic emotional reflexes. The psychological area is represented by the emotions and cognitions. The social arena is that which is in the exterior world: Not only the person's skills demonstrated as behaviour, but also the reactions this behaviour elicits. To summarize: The biopsychosocial model of behaviour illustrates how the three areas influence one another and puts the importance of the emotions centre stage.

3.3 Biology and the Basic Emotional Reflexes

To understand emotions and how they arise, the biology of emotion needs to be considered first, starting with the brain. Specifically a little organ in the midbrain called the amygdala.

3.3.1 *The Limbic System and the Amygdala*

LeDoux (1996) discovered the role of the amygdala in how a new situation is processed, leading to a dual path: A quick and dirty route versus a slow and thorough route. To illustrate with an example: Strolling in the garden at dusk a man suddenly sees a snake. He catches fright and directs all his attention to this snake. Biologically, the amygdala interpreted the signal and sent the alarm. He doesn't need to think about it, it happens automatically and his body is rapidly brought into a state of preparedness. Corticosteroids (so-called stress hormones) are released, in

turn causing adrenaline to flow into his bloodstream, causing his heart rate to increase, his breathing to speed up and energy to be freed up via his liver. All his resources are activated and energy is sent to his muscles so that he is ready to deal with the situation. This is the so-called *fight-flight-freeze* reflex. From an evolutionary standpoint very sensible: He is ready to fight his way out of the situation, run away from it or to freeze dead in his tracks. It increases his chance of survival. From the human evolution he “knows” that snakes don’t see too well and that his best chance for survival is to freeze. If he stands very still, chances are the snake won’t even see him and therefore won’t bite him. In the meantime the information has also been passed on to the neocortex, the slow and thorough processing commences and the finer details become noticeable. Aha. It isn’t a snake, but the garden hose! If it were to bite him (which it cannot) there wouldn’t be any adverse effects. The state of alarm is called off, his heart rate returns to normal, he breathes a little more comfortably and his attention can relax.

The amygdala thereby has an effect on emotional experience in a very functional way. Research on the limbic system in the brain, specifically the size of the caudate nucleus, implies a relationship between how anxiously people are inclined to be generally (Delgado et al. 2004). The amygdala and caudate nucleus are presented by way of example, as a wealth of research is available about how physiological organs and processes affect the emotions. Also one’s genetic makeup provides certain predispositions, which affect one’s propensity to experience emotion, just as it has a role in temperament.

3.3.2 *Neuropeptides*

Research initiated by the late medical doctor Candace Pert ascribes an important role in emotional experience to small substances called neuropeptides (Pert 1997). She named them the *molecules of emotion*. They are found in the brain and are even produced by ordinary body cells. More than 100 different types have been discovered in the brain alone. These neuropeptides are released whenever an emotion is experienced and influence *at cell level* how emotions are physically felt. It seems that the hypothalamus is partially responsible for the release of neuropeptides, but that they are also released via the “memory” of individual body cells.

These neuropeptides attach themselves to receptors on the cell wall, allowing certain nutrients and other substances to enter and leave the cell (or block them from doing so). This means the experience of emotion affects the physiology at cellular level! It also gives an explanation why emotions are felt physically. The direction of causality is a still unanswered question: Do the emotions cause the release of neuropeptides or is it the other way around: Because neuropeptides are released a physical feeling is experienced that leads to an emotional experience?

3.3.3 *Basic Emotional Reflexes*

It is obvious that newly-born babies experience something. As they cannot be asked about their experiences, it may be deduced from their behaviour. From many sources, such as research in the 1950s by Tomkins (1995), in the 1970s by Ekman (1980) and many others inspired by them, it seems that irrespective of culture, certain bodily responses are displayed uniformly by all babies and are already present at birth. This leads to the deduction that certain basic responses and reflexes are biologically wired: They are innate, not acquired. Some of these reflexes disappear as the baby grows up, others remain throughout the entire lifetime.

From a very young age babies are able to imitate facial expressions, according to Field and Walden (1982) already from some minutes after birth. These are very basic imitations, which do not seem to be committed to memory. From the age of about 10 months, imitation seems to be accompanied by some form of consciousness (Legerstee and Markova 2008). All this kind of research raises the question about when a facial expression is nothing more than that, or the reflection of an inner emotional experience. This discussion may be avoided, as what is known is that adult facial expression to some degree reflects the emotion being experienced internally. To some degree, as people are socialized into rules for appropriate display of emotion. In this paragraph the *emotions* people experience are not yet being considered, but the basic physiological *expressions*, which seem to be inborn. To emphasize this, the author uses the term *basic emotional reflex* (and not the confusing term affect programmes as used by Tomkins and others, which seems to imply a psychological experience):

Basic emotional reflex: Biological. When a basic emotional reflex is triggered (by a definable stimulus) a mechanism is activated which leads to a chain of biochemical and physiological events that are felt (experienced) physically.

Point of departure is that these basic emotional reflexes help one to react appropriately to situations (by directing one's attention to what is important, for example) and to elicit appropriate attention from caregivers. Tomkins (1995) describes nine of these basic emotional reflexes, which he explains as directing the learning processes and by extension all human experience, ranging from very basic in the baby to a complex interaction between biology and psychological meaning in the adult. His theory in brief is that every basic emotional reflex has a certain "colour" and when triggered it colours experience to a certain intensity, see Table 3.1. Through learning processes a person associates the experience of these basic emotional reflexes with situations, whereby meaning is given to those situations. In this sense the basic emotional reflexes tell one physically what is important and to what one should devote one's current attention.

The basic emotional reflexes can be divided into three broad categories based on valence, depending on how they are experienced: Two positive, six negative and one neutral. The biological purpose is logical: It is important that one can estimate what requires attention and what doesn't. From an evolutionary point of view very

Table 3.1 The nine basic emotional reflexes according to Tomkins

Category	Colour	Expression via the body
Negative	Distress—anguish	Sobbing, crying, eyebrows arched upwards, tears, red cheeks, flailing arms and legs. See Fig. 3.2
	Distaste	Neck forward and head down, lower lip and tongue protruded (as when spitting out something that tastes foul)
	Dissmell	Upper lip drawn upward, nose wrinkled and head drawn back (as in avoiding something that smells bad)
	Anger—rage	General muscular tension, clenched jaws or screaming, eyebrows down, red face, increased heart rate and rapid breathing (fight-response)
	Fear—terror	Eyes wide (and tracking that which causes fear), lower eyelids tensed; eyebrows raised and drawn together; face pale, increased heart rate and rapid breathing (flight-freeze response)
	Interruption	Looks away, the neck muscles relax so that the head falls, turning away or hiding, blushing.
Neutral	Surprise—startle	Blinking of the eyes, eyebrows up, eyes wide, the “oh!” effect. See Fig. 3.4
Positive	Interest—excitement	Tracking with the eyes, gazing, eyebrows down, slightly raised heartbeat and breathing
	Enjoyment—joy	Relaxed face, mouth (slightly) open, smiling, gleaming eyes, laughing. See Fig. 3.5

adaptive: If nothing would draw one’s attention, the first hungry lion would quite easily enjoy one as his next meal. In our current society to a broader degree, as it’s now about more than only physical survival. In a complex world a person constantly needs to divide his or her attention between various things and determine what has priority right now. That selection process requires consciousness and Tomkins suggests that nothing enters consciousness, nothing becomes urgent, until it is first amplified by a (biological) emotional reflex. In brief: Something happens in the body that serves as signal. As these reflexes are biological, they always operate whenever triggered, irrespective whether the person is consciously aware of them or not.

A number of these basic emotional reflexes may be recognized in Figs. 3.2, 3.4 and 3.5. A remark concerning their names: Some of them are named after adult emotions (Tomkins even uses the term “shame” for the interruption reflex). This does not imply that babies experience these basic emotional reflexes as emotions or the same way adults do when they experience that emotion. It is the *bodily and facial expression* that coincides with the typical expression when adults experience that emotion.

Experience isn’t solely due to processes in the brain, but a complex game between biological (biochemical and physiological), psychological and social factors—the biopsychosocial principle. It is only once a person becomes aware that a basic emotional reflex has been triggered (which requires some degree of consciousness) and depending on the intensity and the context, before it will get



Fig. 3.2 Wilma van Heerden: basic response “distress”

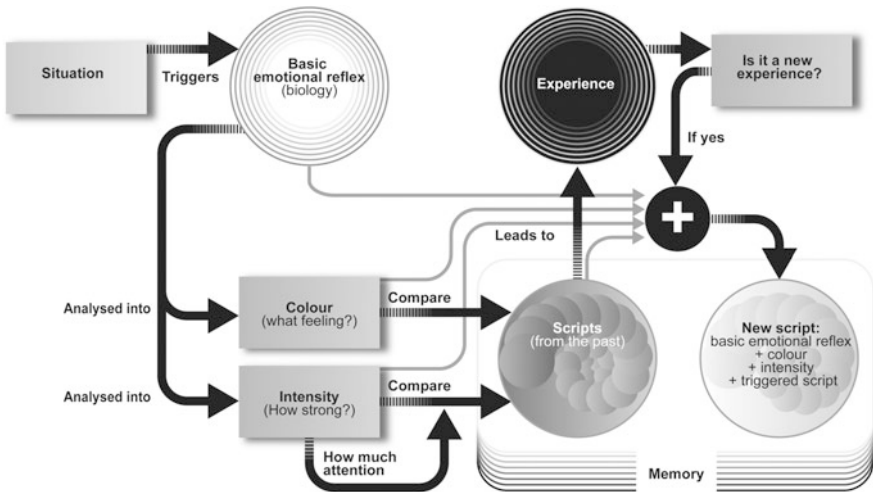


Fig. 3.3 Pieter Houtekamer: basic emotional reflexes, scripts and experience

meaning in what Tomkins calls a script. Such scripts can be very basic, yet as development progresses they become more complex as both scripts and basic responses are combined into new scripts. This is a largely unconscious learning process, of which the basic emotional reflexes are the biological building blocks, see Fig. 3.3. Scripts enable the human being to react appropriately (that is, as learnt)

and quickly in almost every known situation, without requiring much energy from the thinking apparatus. Very adaptive from an evolutionary standpoint: This frees up resources to pay attention to other stimuli. To summarize: Scripts are the building blocks of human experience and thereby the primary motivator of behaviour.

It is only after a basic emotional reflex has been triggered that a situation actually draws one's attention: It "loads" it so as to motivate one to do something with that situation. And similarly, just as an actual situation "does something with one", the same goes for memories. They too are loaded by the basic emotional reflexes they trigger in the person. By the intensity of the response the person knows what is important, what deserves attention and what kind of reaction may be appropriate. This is why they are the primary motivator for learning, as future choices and behaviour are based on what similar choices brought about on previous occasions. Tomkins says that all behaviour is motivated by the urge to increase positive experience and reduce negative experience and it is this principle that also drives learning in a social context. It boils down to that which one becomes aware of in a (social) situation, is brought to one's attention by a basic emotional reflex (biology), leading to the experience of a feeling (physiological). This feeling is given meaning from the individual's history (library of scripts in memory) leading to an (emotional) experience (psychological).

About the difference between various basic emotional reflexes: Probably the most primary is surprise (Fig. 3.4), or in its more intense form, the startle response. Its purpose clearly is to draw the attention to something new or to an important change in the environment. It causes one to transfer one's attention from what one was doing to this new stimulus. It is most visible in the eyes, the raised eyebrows



Fig. 3.4 Wilma van Heerden: basic emotional reflex "surprise"

and the open mouth. Also adults display a similar facial expression. Even when repressed it may be noticed by a slightly raised eyebrow (of one or both eyes).

The difference between interest and surprise is subtle: Where surprise captures the attention, interest holds the attention. Surprise is short-lived, a kind of reset button. When this flows over into interest, the eyes remain wide and the interesting stimulus is tracked. The major difference in facial expression is that the mouth relaxes.

The four negative basic emotional reflexes that are most easily recognized (both in adults and in children) are fear, anger, distaste and dissmell. With fear the wide eyes and the wrinkled forehead are characteristic and with anger the lowered eyebrows. Distaste, as the name implies, renders a facial expression as when food that in first instance looks good is eaten, but found to taste bad and spat out. Dismell is the same, except that it is as food which smells bad and isn't actually eaten: The turned up nose is an attempt to distance oneself from this bad smelling (and therefore to be avoided) substance.

The basic emotional reflex joy (Fig. 3.5) is usually easy to recognize due to the smile and the generally positive appearance. The most difficult to explain is the basic emotional reflex interruption (which Tomkins calls shame, easily confused with the adult *emotion* shame). It is not possible to forever find a new stimulus interesting, nor will something that gives joy keep doing that into eternity. Something (biochemical and physiological) needs to interrupt that stream. This means turning away from the stimulus by the relaxation of the muscles in the neck, so that the stimulus is no longer the centre of attention. Take the Western norm regarding eye contact by way of example: If one didn't regularly break eye contact whilst speaking with another person, it would lead to staring. Ultimately either or



Fig. 3.5 Pieter Houtekamer: basic emotional reflex “joy”

both parties is going to feel uncomfortable. The natural making and breaking of eye contact is a perfect example of the basic emotional reflex interruption regulating behaviour so that an uncomfortable feeling is avoided.

To reiterate: Do not see the basic emotional reflexes as emotions. What is true is that by recognizing which basic emotional reflexes have been triggered one can make a better *estimation* of the emotions the other is experiencing. Remember though, that the display of emotions is a cultural phenomenon. So although all have the culturally independent biology and physiology *with which* to express emotion, how one actually *gives* expression to what one is feeling internally, is bound by all kinds of social and cultural norms. For example: In the Japanese culture it is inappropriate to let another lose face. So even when seething on the inside, a good face and smile will be kept so as not to affront the other. The trained observer will however see other cues behind the smile and with his or her knowledge of cultural differences still make a better estimation of the internal state of the other. To repeat again: the anger in the example above is an *emotion*. The smile is a physiological/biological response. Emotions are however more than the physiological and biochemical responses that give one the ability to experience and express emotions.

3.3.4 *The Biology of Emotion*

To recapitulate: The body is wired to respond to the outside world. The limbic system plays an important role in how the outside world is interpreted, leading to triggering of the basic emotional reflexes. These in turn may be seen as the physical (i.e. physiological and biochemical) building blocks of experience. By causing certain reactions in the body, they motivate one towards seeking positive experience and avoiding negative ones. Via learning processes people unconsciously associate these physiological reactions, the intensity to which they are activated and the context wherein they are triggered into so-called scripts. These scripts become ever more complex and enable people to experience situations, making them the primary motivators of behaviour. Neuropeptides give a possible explanation to why emotions are experienced physically.

3.4 A Biopsychosocial Model of Emotion

That people experience emotions is an obvious statement of fact. When studying psychological theory on what exactly an emotion is, it becomes somewhat more difficult. A number of theories exist that overlap here and there and differ from each other in other areas. In this paragraph a model of emotion is introduced that is a synthesis of several theories, leading to a broader, if not different role for emotions.

Often the terms feeling, emotion and mood are used interchangeably, hence first some definitions (Nathanson 1996):

Feeling: Consciousness plays an important role: A feeling is experienced when an individual becomes aware that a basic emotional reflex has been triggered. It is physical.

Emotion: An emotion is a complex combination of basic emotional reflex patterns and memory of previous experiences in which these were undergone. *Basic emotional reflexes are biology, emotions are biography.* An emotion is dependent on a “story”. Each individual experiences a certain emotion from his own perspective (acquired via socialization and history).

Mood: A state of continued experience of a certain emotion, a state of being. Usually temporary until it is no longer “fed” by memories or until something more important captures the attention.

Mood disorder: When a negative mood is so persistent and salient that it disturbs daily functioning.

As the biology of emotions has been dealt with to some extent, now some of the classical psychological emotion theories will be briefly discussed:

3.4.1 *James-Lange, Tomkins and Izard*

One of the first theories linking emotion with experience has been dubbed the James-Lange theory. Point of departure is that emotions are specific, by which is meant that one does not need to question whether one is experiencing happiness or fear, for example, as they are qualitatively different experiences. When scared of snakes one will not need to think: “*Oh, there is a snake. I am scared of snakes.*” When a snake is encountered instantaneously one undergoes an anxious reaction, which, without needing to think about it, is experienced as fear. LeDoux’ (1996) theory on how the amygdala regulate emotional responses supports this point of view: The quick and dirty route that immediately causes a reaction. This short route is what the James-Lange theory is about: When something happens in the environment one immediately undergoes an emotional reaction and instantly knows which emotion is being experienced. LeDoux’ long route is only activated when the intensity of the reaction tells one that this is important enough to warrant one’s full attention.

People therefore seem to first experience and give meaning to what they are experiencing afterwards and this is already hard-wired into the human biology. It leads to the next discussion: To what degree are the emotions discrete, by which is meant specific and distinguishable from one another. Does anxiety feel different than sadness, for example? The theory that emotions are nothing more than a non-specific state of arousal, to which meaning is given afterwards on the basis of the environment (Schachter and Singer 1962), is not supported by research. See for example Marshall and Zimbardo (1979), who tried replicating the experiment without success. Tomkins (1995) says few people have actually taken the effort to read the original article by Schachter and Singer. In his words:

... despite the fact that there was no statistically significant main effect and that those significant effects reported were either small or in the wrong direction.

In brief the original article already shows that there is little support for this theory, it seems to have been incorrectly cited by other authors.

Izard's differential emotions theory which now goes under the name of the discrete emotions theory (Izard et al. 2002) says there are a number of basic emotions, but that these are rather broad categories of emotion. Each individual creates his or her own emotional "programmes" from neuronal, hormonal, behavioural and learning processes. These associations are based on experiences in the past. These programmes show a marked likeness to Tomkins' scripts, described in Sect. 3.3 on basic emotional reflexes. The discrete emotions theory has a lot of overlap with Tomkins' theory generally, from which it is also derived. Researchers do not entirely agree on the number of basic emotions: Ekman et al. (1982) cite six (joy, sadness, fear, anger, surprise and disgust) whereas the latest research distinguishes only four. Anger and disgust would be one and the same basic emotion, as also surprise and fear (Jack et al. 2014).

The current thinking in the discrete emotions approach tries to explain the richness of emotional experience using systems theory (Colombetti 2009). In the systems theory approach there is also a role for intensity and difference in experience. Colombetti further challenges the idea of an "emotional episode", by which she means the ability to link the experience of a particular emotion to a specific timeframe. In the systems approach emotion is constantly being experienced and changes dynamically in reaction to several factors, which also constantly vary.

Another contemporary approach to emotions sees them as componential, consisting of a subjective feeling component, a physiological component, a motor expression component, and an action readiness component (Vandercammen et al. 2014). From this point of view individuals will first appraise whether an event is relevant for their well-being and only if so, are the different emotion components activated.

3.4.2 *Social Function of Emotion*

That the expression of emotion has a social function seems clear. Van Kleef (2009) in his EASI-model (Emotions as Social Information) explains how emotions in a social interaction give parties information on which they also act. People "read" each other's emotions, use this to judge the other's mood while it simultaneously elicits an emotion in them. In this model there are two factors that influence what the impact of another's emotion is on one's own behaviour: Information processing and social-relational factors, see Fig. 3.6.

By information processing is meant that both motivation and the possibility to process need to be present before something is actually done with the emotional information at one's disposal. Motivation boils down to the intensity with which the own basic responses are triggered: Only when something sufficiently "does something" with one, will attention be given. The possibilities can depend on all

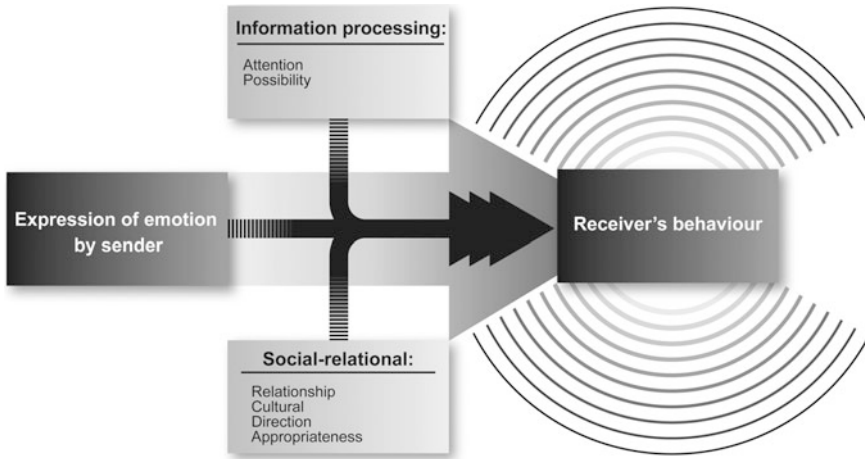


Fig. 3.6 Pieter Houtekamer: the emotion-as-social-information model by Van Kleef (2009)

kinds of thing. Someone with an autism spectrum disorder, for example, has a deficit when it comes to being able to read others' emotions. Or if something else has priority at that moment, attention will be drawn to that, reducing the possibility to interpret the other's emotion.

Social-relational factors can be summarized as the nature of the relationship (for example the mismatch in power between people), cultural norms (such as the acceptable ways in which emotions may be expressed), on what the emotion is directed (on the individual as person or on the environment) and how appropriate the emotional expression is (for example displaying happiness in a situation which most others experience as sad).

Of particular interest is the general difference between Eastern and Western cultures regarding what constitutes good feelings and what constitutes bad feelings in social situations (Kitayama et al. 2000). In a Western culture where individuality is celebrated, good feelings are associated with independence, feelings of individual confidence, etcetera. These feelings are associated with disengaged emotions, which are emotions that separate the person from others and emphasize his or her competence. In Eastern cultures the *relationship* between the self and the (direct) social environment is more important, in other words the interdependence between people is emphasized. When in harmony with others, these so-called engaged emotions give rise to good feelings.

To sum up: A person will to some degree react on the emotional expression of another (and vice versa) and the interpretation of another's emotion is subject to several factors. The point is, however, that emotions have a social function both in terms of the reactions they elicit, as well as the appraisal the person interpreting social emotions makes.

3.4.3 *Emotion Regulation*

In discussing the emotion-as-social-information model, another important aspect was implicitly touched upon, that of emotion regulation. By this is implied that people also to some extent process raw emotion and make decisions as to whether give expression to their emotions (via their behaviour), to suppress them (both in terms of expression via behaviour and in terms of how much they allow them to affect them) or whether they should be reappraised (thereby giving them a different meaning). The purpose of emotion regulation may be divided into two global aims, hedonistic or instrumental. By hedonistic is meant a focus on the internal experience of emotion—generally people prefer to experience positive feelings above negative feelings, that is, they like to feel good and avoid feeling bad. By instrumental is meant that via behaviour one is able to influence the environment to be able to obtain certain (desired) results. A simple example is that by crying when sad, sympathy and comfort from others may be obtained.

The emotion a person experiences at any given point of time may be viewed from two dimensions. The emotional valence is the experience of how positive or how negative an emotion is. The second dimension is the intensity: the stronger the intensity, the more salient the emotion is. It was previously mentioned that an emotion will need to impact the individual to a sufficient degree before something is done with it, a so-called threshold. Above this threshold the intensity will also determine the urgency with which the individual will need to react. In Fig. 3.7 a simplified model is depicted for the emotion regulation system.

Stupar et al. (2015) found certain tendencies in how valence and intensity affect emotional regulation. Their first conclusion is that the intensity of the emotion (irrespective valence) has a positive correlation with its expression. They also observed that the most reappraised and the most suppressed experiences are on average the most negatively valenced experiences. This may be partially explained by the evolutionary adaptive negativity bias: The tendency to pay more attention to negative information (as negative information could mean a threat to one's safety or well-being).

In terms of intensity, they found that more intense emotions are *less* suppressed and reappraised than less intense emotions. At the same time the variability in emotion regulation increases as the intensity increases, implying that other factors such as personality or context also play a role, especially when the emotional experience is more intense. This isn't such a strange result as one may think, especially when regarding the emotion regulation system as being primarily a cognitive process. As the intensity of emotion (especially negative emotion) increases, one is driven ever further into the primary reaction mode due to the fight-flight-freeze response, in which the limbic system "short-circuits" the neocortex in an (adaptive) attempt to preserve life. In other words, the urgency to act overrides other, less essential processes, including cognitive processes and the emotion regulation system. This principle is easily demonstrated by considering an

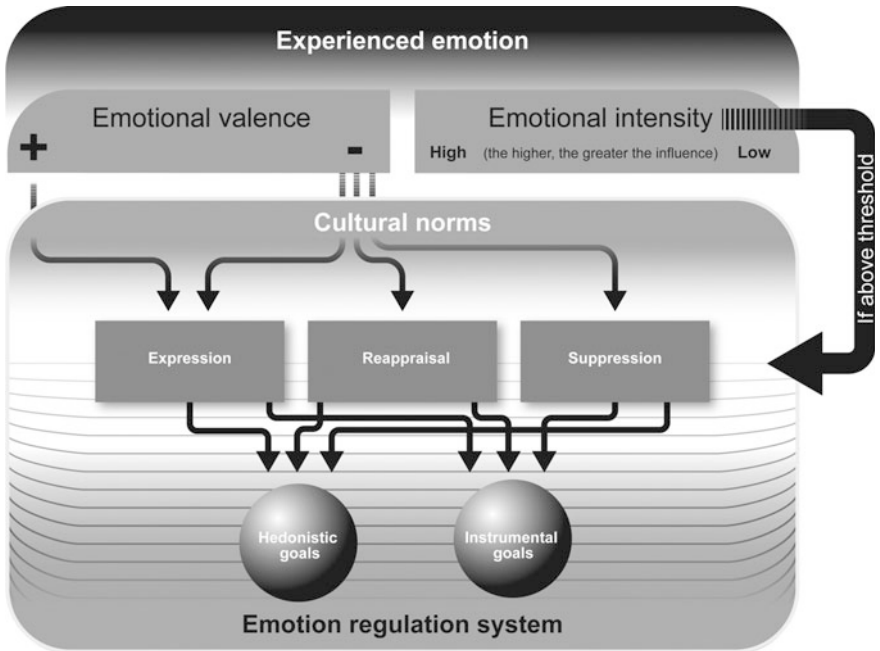


Fig. 3.7 Pieter Houtekamer: a simplified model of emotion regulation

escalating fight in a relationship, where the longer the fight endures, the more intense the emotions become, the less their expression is controlled and the less reasonable the parties become (and the less effective rational arguments become!).

The last factor to include in this model is the role of culture. Culture doesn't only socialize one into what are appropriate and inappropriate ways to express one's emotions, but also affects the individual in terms of what he or she is allowed to feel about himself or herself. By way of simple example, feeling proud of one's achievements is encouraged in the American culture, yet disapproved of in the more traditional Dutch culture. Stupar et al. (2015) however found that culture had little effect on the amount of social sharing and could only find a small influence of culture on suppression (non-Western suppress more than Western) and a small influence on reappraisal (non-Western reappraise more than Western).

For the purpose of the biopsychosocial model which will now be introduced, the emotion regulation system is divided into two subsystems, an internal system in which suppression and reappraisal are used to change the way people feel about themselves, and an external system in the social arena in which the expression (including the behavioural suppression) of emotion is tempered due to culture and socialization.

3.4.4 A Biopsychosocial Model of Emotion

By combining, a biopsychosocial model of emotion as depicted in Fig. 3.8. may be posited:

To illustrate the model, one may begin with a situation that presents itself in the social arena. This elicits a physical reaction via the short, unconscious route described by LeDoux’ theory. It triggers the appropriate basic emotional reflex via the library of scripts, giving the person a (complex) feeling, as was depicted in Fig. 3.3. As this feeling is felt physically, it causes a change in the emotional landscape. This environment is dynamic, that is, it is constantly fluctuating. So it is actually the change in feeling which is noticed and is called an emotion. The feelings are however largely biological (neurotransmitters, neuropeptides and predispositions).

The link between the situation and the feeling is committed to memory due to classical conditioning. This memory influences both the intensity of the bodily reaction and how these reactions are experienced. Every repetition of that situation increases the intensity. The more intense the memory, the larger its amplifying power. To continue: The process of classical conditioning is unconscious. The memory isn’t only stored in the brain, but also in body cells via the operation of neuropeptides.

When a situation sufficiently draws a person’s attention, the conscious, long route of LeDoux is activated, leading to cognitive processing and internal emotion regulation. When the emotion is reappraised or suppressed, this changes the way the person feels, again by triggering the appropriate basic emotional reflexes and scripts in a sort of feedback loop. It also affects further processing (that is, the interpretation of the emotion) and the way the situation is stored in memory.

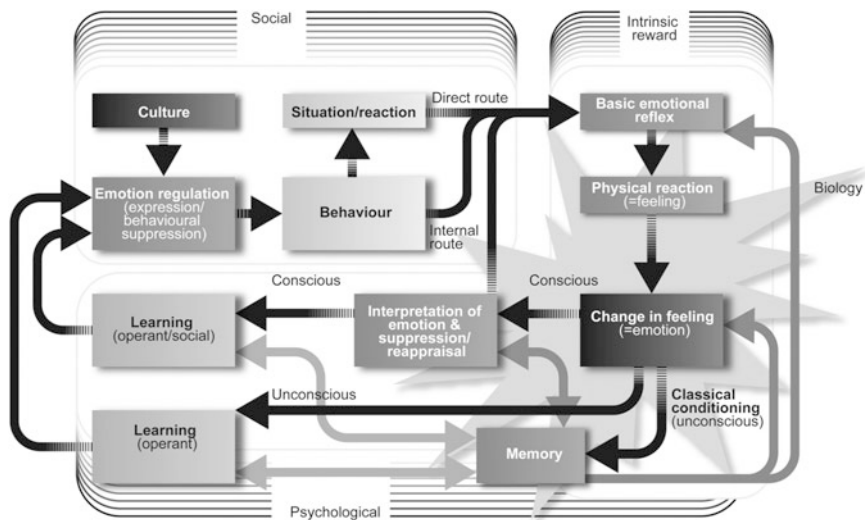


Fig. 3.8 Pieter Houtekamer: a biopsychosocial model of emotion

In terms of further cognitive processing, both the situation and the (possibly modified) feelings it elicits are then interpreted in combination with what is in memory. This interpretation then directs learning (on a more conscious level) using the processes of operant conditioning and social learning. The person notices what the consequences of a particular situation or his or her reaction towards it are. Also this conscious process causes an interaction between interpreting and memory. This more conscious (or in any case more deeply processed) interpretation not only affects the person's current reaction to the situation at hand, but is also stored in memory, thereby affecting his or her future behaviour.

What generally is ignored in behaviourism is what exactly reinforces behaviour in operant conditioning. It isn't the actual reward or punishment, but what that reward or punishment *means* to the person. And that's a feeling, not the objective consequence. The reinforcement is the experiencing of the emotion that the objective consequence evokes. A positive consequence of specific behaviour will only be experienced as being positive when it renders a positive feeling. This is also why triggering the basic emotional reflexes, the concomitant feeling and the change in one's emotional landscape may be regarded as an intrinsic reward. The valence of the emotion doesn't alter this principle: That the experience of emotion *in itself* is an intrinsically rewarding experience. This will be further discussed anon.

Not all behaviour is consciously chosen, a lot is done automatically. The several heuristics people use are a good example of unconscious decision making and by extension unconscious behaviour. Yet all behaviour was learnt sometime, someplace before, also the behaviour now executed heuristically. So also here memory plays a role.

Whatever the situation, a person will react consciously or unconsciously. Also when he or she does nothing, this too is a reaction, just like it is impossible to not communicate. Whatever the (lack of) reaction, it is behaviour. Exactly how one responds is influenced by the external (social) emotional regulation system, in which cultural and socially accepted ways of expressing emotions influences actual behaviour. And that behaviour in turn elicits a response from the (social) environment, leading to a new situation.

That completes the circle: Situation—basic emotional reflex—bodily response—change in feeling/emotional landscape—processing of this change—storage in memory—choice of reaction—reaction—new situation.

In this circle the function of the social environment becomes apparent. For example how social and cultural norms for expressing emotion are instilled. One could say that most of the (mental or behavioural) disorders only become visible when the *expression* of the internally experienced emotions is seen as inappropriate *in that society*. Cultural norms for the appropriate expression of emotion are primarily socialized via the learning process: Via the individual's behaviour and the reaction that this behaviour draws out from the social environment. This explains why the Japanese person who is seething on the inside will continue to smile: Any other reaction in the Japanese culture is inappropriate and this has been made clear to him or her as a child by his or her caregivers. The external emotion regulation

system tries to ensure that these norms are respected by suppressing (culturally) inappropriate displays of emotion.

Behaviour also draws out a bodily reaction in another way: Directly, without the intervention of the social environment, called intra-psychological. Research shows that when pretending to laugh, there still is an effect. Endorphins are released, even if the person feels unhappy whilst forcing himself or herself to laugh. The self-perception theory (Bem 1972) says the same thing: In an ambiguous situation people interpret their own behaviour and draw conclusions from that interpretation. Seen from the self-perception theory one could say that: “Because I am laughing, I probably am happy”. In this way behaviour brings about a physical reaction in the body, without the help of the social environment. The same goes for memories, which when activated will also elicit an emotional experience irrespective the presence of the social environment.

Operant conditioning as strategy for altering dysfunctional behaviour goes awry as the link between negative consequences and behaviour doesn't always lead to a reduction of that behaviour. Some people keep finding themselves in situations which aren't particularly beneficial for them. Sometimes that can be explained by the difference between short term advantages versus long term disadvantages. Sometimes people simply aren't equipped to deal differently with a situation (that is, a deficit in skills as explained in Sect. 3.2). There is yet another explanation: The physical reaction and its influence on the emotional landscape can be seen as intrinsically rewarding irrespective whether the experience turns out positively or negatively. Merely experiencing an emotion is rewarding. This may be illustrated using depression: People who suffer from depression are generally apathetic and their emotional experience is drab. By manner of speaking they are depressed because they aren't experiencing anything. This is similar to what the behavioural therapists say: *rewarding experiences* are lacking. But inactivity leads to a *lack of all forms of reinforcement*, also those which lead to a negative experience. To exaggerate: The change in emotional landscape tells the person that he or she is experiencing and therefore that he or she is alive. And that is in itself a rewarding experience. The fact that emotions are intrinsically rewarding can even lead to an addiction to certain emotions ...

When emotions become addictive it can lead to persevering problems. A cognitive approach has little effect then, as the problem lies in the emotions, not the thinking. Experimenting with new behaviour is usually an easier route than the repression or avoidance of difficult emotions (in other words: Unlearning dysfunctional behaviour). Trying out new behaviour leads to a new (or at least different) emotional experience. This new behaviour will not only draw out a different reaction from the social environment, but is also reinforced due to the intrinsic reward of the emotional experience it elicits. When the new emotional experience is positive or more positive than the one the dysfunctional behaviour yielded, one will tend to utilize this new possibility more easily. The old behaviour doesn't need to be unlearned: It will be used ever less often until it eventually extinguishes by itself.

What then about the cognitions? Seen from this model, cognitions, thoughts and beliefs are secondary. That doesn't mean they are unimportant, to the contrary. Yet how a person thinks about things has to do with memory. They don't "just think", but use all their knowledge and experiences from the past as a background for the new thought that arises. As it is the change in emotional landscape that signals what is important, by extension it also determines what is remembered and how that is remembered. Emotions thereby are primary. Cognitions do also influence behaviour: In terms of systems theory they form one of the several feedback loops that maintain behaviour. As the cognitions are regulated by the emotional experience, they thereby are a so-called second-order factor. By the way: Behaviour in this model may be seen broadly as everything someone does (i.e. a verb). This means that thinking (a verb) is also behaviour, delivers an emotional experience and is by itself a rewarding activity!

In summary, emotional experience is one great, complex interaction which keeps itself going. The central facet is a dynamic, ever-changing emotional landscape, in which an emotion is a self-rewarding phenomenon that directs a person's thinking, what is remembered and the way people see themselves: Emotion gives meaning to one's life and to the moment, and regulates one's behaviour.

3.5 Shame and Guilt

What should be clear from the preceding paragraphs is what emotions are and how they play a primary role in how people experience and by extension behave. What should also be clear is that emotions are functional: Without emotions it makes no sense to do anything at all. In other words emotions are functional in that they tell people what is important to them and give them the experience of being alive. This means they motivate one. From this broad perspective on emotions, the focus may now be narrowed down to the subject of this book: Shame. Shame is one of the emotions people experience and should therefore also be a functional emotion. That people generally experience shame as something negative may be clear. In simple terms shame has a limiting effect: It prevents one from "going over the top" and in that sense it has a protective intention. As with all emotions, shame only becomes problematic when it is overly limiting or not present at all. This could be due to all kinds of factors: poor or misplaced emotion regulation, inappropriate appraisals or expectations, to name but a few. To put it differently, shame as a normal reaction isn't problematic and is functional just as the normal experience of fear prevents people from doing potentially dangerous things.

In this paragraph how shame influences our experience and behaviour is considered, beginning by making a distinction between shame and guilt, two terms that are easily thought to be interchangeable for the same emotion. After that how people deal with shame is specifically reviewed.

3.5.1 *The Difference Between Shame and Guilt*

The discussion about the difference between shame and guilt has been ongoing for some time. In everyday language the difference between these two is not all that clear and people often use the terms interchangeably (Nathanson 1996). The most usable definitions are given in an overview by Tangney et al. (2007):

Moral emotions: Emotions that motivate to the doing of good and not doing what is evil (Kroll and Egan 2004). What good and evil are, is however dependent on culture.

Self-conscious emotions: These are experienced via (implicit or explicit) self-reflection and self-appraisal. The self is the object.

Guilt: Is a negative, self-conscious, moral emotion which occurs when the individual admits that he has done something that transgresses a moral law. The focus is on inappropriate behaviour.

Shame: Is a negative, self-conscious, moral emotion which occurs when someone see *his person* as being deficient, because something he did transgressed a moral law. The focus is on the person.

Embarrassment: Is a negative, self-conscious emotion specific to the social situation. The person experiencing this emotion feels himself deficient and observed, yet no moral law has been transgressed.

Guilt, shame and embarrassment are negative, self-conscious emotions and can refer to the past (something that has happened) or to the future (one anticipates how a particular situation will play out). Embarrassment and shyness are however limited to (perceived) social situations and generally are only problematic when they are an exaggerated reaction. If one slips whilst walking, it isn't really strange if one momentarily feels embarrassed. Yet when one doesn't dare to make any social contact, this can form quite a barrier to one's functioning. Often problematic embarrassment and shyness are linked to self-image issues, beyond the scope of this chapter. The discussion is in first instance limited to the two negative, self-conscious, *moral* (as Tangney et al. 2007 define them) emotions: Shame and guilt.

There are two options when an individual is confronted with an imperfection in their person or their behaviour: They can accept that fact or they can defend themselves against it. When it is accepted the focus shifts from the person to the inadequate behaviour, leading to the experience of guilt. From previous literature research (Van Alphen 2004) it appears people seem to accept their faults more readily in two circumstances: When it doesn't do that much to them (because it isn't that important, for example) or when it is so overly apparent that they cannot manoeuvre around it.

When people feel guilty, they tend to feel sorry for what they have done and have the wish to make undone what their actions brought about. That can be by offering apologies or by restoring or reimbursing the damages. In this sense guilt is a negative emotion with a positive outcome. Where guilt becomes problematic is when the possibility to repair is absent or when the feelings of guilt are irrational or misplaced. In trauma, for example, people often develop a guilty feeling in the

sense of “*If only I had done ..., this wouldn’t even have happened*”. The victim of a traumatic experience is seldom *objectively* at fault. Also when someone dies (irrespective the objective guilt question) the possibility to undo what happened simply isn’t there. In brief, normal feelings of guilt motivate people to restore their relationship with others they have somehow wronged while misplaced feelings of guilt usually aren’t resolvable. The moral element is obvious: Guilt is only felt if the *person* subjectively feels he or she has transgressed a moral standard.

Shame on the other hand is experienced when the person perceives *himself or herself* deficient. Because the focus is on the person, the first tendency is self-protection, as no-one likes to feel themselves lacking. A number of strategies are therefore used to draw attention away from this (now experienced as deficient) person. Take the alcoholic who has promised his partner not to drink during the day. Chances are, if he doesn’t stick to his promise, that his partner will smell his misstep via his breath. Chances also are that she will let him know in no uncertain terms when she finds out. So when his partner confronts him with his behaviour, he sees his own behaviour as transgressing a moral law. He had a drink, whilst that wasn’t the agreement. So the law being transgressed is: “*Stick to your promises.*” Instead of admitting that his *behaviour* is inappropriate (“*I know it wasn’t what we agreed, but I couldn’t stop myself.*”), chances are he will try to draw his partner’s attention away from him as person. This is characteristic for shame—the alcoholic doesn’t consider his behaviour inappropriate but sees himself as a defective person because he didn’t keep his word. And that doesn’t feel that good, so the sooner he isn’t under scrutiny anymore, the sooner he doesn’t have to face this rotten feeling.

3.5.2 *Is Shame a Moral Emotion?*

A valid question is whether shame is limited to a self-conscious *moral* emotion, meaning a departure from Tangney et al.’s (2007) definition. The author tends to see shame occurring whenever a person perceives himself or herself as being a *defective person*, irrespective whether a moral law has been broken or not. In other words, also when a person feels incompetent and attributes this (explicitly or implicitly) to him or her being a defective person, this will give rise to shame. One could stretch the idea of moral transgression by saying one is morally obliged to be an autonomous, competent person ... Yet what a moral emotion is, is a matter of discussion (Cova et al. 2015). This implies that when an individual from his or her own personal frame of reference feels he or she has broken a moral code, it may evoke the experience of a particular emotion such as shame or guilt. This may be true, but does not logically imply the opposite. It doesn’t preclude a person from experiencing these two emotions without putting morality into the equation. Hence the suggestion to concentrate the definitions of shame and guilt on the emotion connected with feeling oneself a defective person (shame) and feeling one’s

behaviour is inappropriate (guilt), given that both emotions arise from a self-conscious evaluation (that is, the self is the object under evaluation) according to one's own frame of reference.

3.5.3 How People Deal with Shame

Nathanson (1992) worked out the way people defend themselves from shame in a model he calls the Compass of Shame. His model enjoys sufficient support (Elison et al. 2006) and is the basis for some questionnaires to measure internalised shame. According to Nathanson, when confronted with shame people use one of four broad defence mechanisms (a psychoanalytic term describing the many ways people deal with negative emotions): Withdraw, attack the other, attack themselves or avoid (see Fig. 3.9).

Has your partner ever called you on something you did and you answered: “Yes, but you ...”? From a logical point of view it isn't even relevant what another did or didn't do, it doesn't suddenly make one's behaviour right. The yes-but-you answer is called the turn-around trick and is a good example of one of the four defence mechanisms: Attack the other. This strategy works, because now the attention is no longer on the person and his or her defects, but on the other person. The opposite strategy might look like acceptance but isn't: Attack oneself: “Oh, how could I be so stupid!” After having said it, there no longer is any need to talk about it, leave alone do anything about it. Or the person becomes the “victim”, which also draws

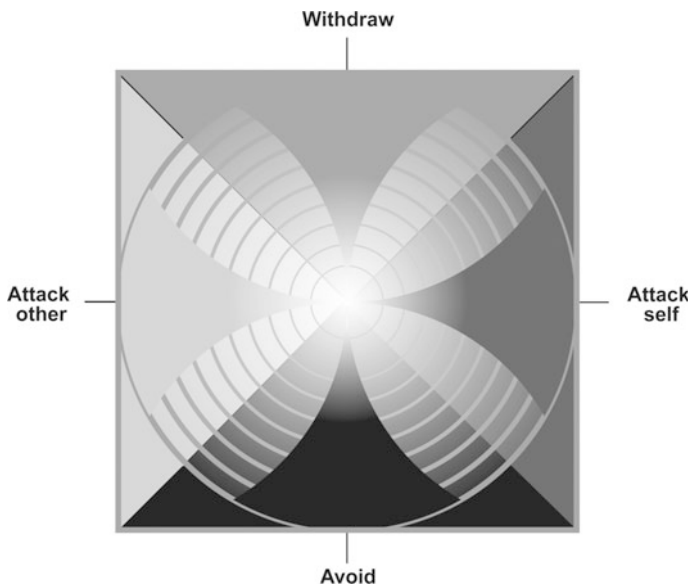


Fig. 3.9 Pieter Houtekamer: the compass of shame adapted from Nathanson (1992)

attention away from the shameful act. Ever walked off in a huff during an argument, or that the other did that? Walking off doesn't solve the problem, but does mean that (for the moment) one doesn't have to deal with the bad feeling, or at least to a lesser degree. Children do this by hiding, sometimes literally and sometimes by hiding their faces behind their hands. This way the situation simply isn't there anymore. These are all examples of another strategy—to withdraw. The fourth strategy is avoidance. That can be short-term by denying or by changing the subject, or longer term by using alcohol or drugs to avoid the bad feeling, or by replacing the bad feeling by seeking out other forms of excitement.

An individual therefore chooses between one of two “axes” when confronted with shame: Attack or run away (*fight or flight*).

- When attacking, an object is required: People either attack the other or they attack themselves. All the so-called disclaimers also fall into these two categories: That is, all the different ways in which one claims not to be at fault for what has been done.
- The other axis has more to do with time. Withdrawing is immediate, as from the instant one (actually or psychologically) walks away, the situation no longer exists—just like an ostrich sticking its head in the sand. Avoiding takes a little more time: The bad feeling doesn't dissolve straight away, it takes time before the avoidance strategy kicks in.

To sum up, the way in which people defend themselves against the bad feeling shame gives them is symbolized by the four points of the compass as depicted in Fig. 3.9.

None of the four strategies is in itself pathological. Which of these broad choices a person uses depends on all sorts of things such as personality, how he or she was brought up, culture and life history, etcetera. Also the situation or situational factors have influence. A healthily functioning individual will switch strategies depending on the situation. It becomes problematic when a person always, irrespective the situation, uses one and the same way to defend himself or herself against the bad feeling. Or never takes a step back and accepts that something one did could have been done differently. Shame can have a pathological effect on one's mental health depending on the frequency and intensity in which shame is experienced, in contradistinction to guilt, where the imperfection is accepted.

To return to the fictional alcoholic and his partner. He could deal with his feeling of failure by venting that on his partner (the attack other strategy). Yet he doesn't lash out at her because he wants to attack her *personally*, but because she happens to be the person who is around when he needs to deal with the bad feeling. It's about him, not her. What often happens is that the partner in turn interprets this as him venting his anger *on her*, causing her to react, which causes the argument to escalate. The vicious circle (the escalating argument) is therefore an interaction between how the man deals with his *shame* and how his partner interprets his *attempt to deal with* this feeling of shame. Here is an example how shame can cause a dysfunctional interaction.

3.6 Conclusion

So what is then the functional and adaptive side of shame? As may be evident, shame kicks in when the person experiences himself or herself as being defective. The natural first reaction is *not* to deal with it, yet in the long run shame eventually should bring one to the point where one actually does something about one's *behaviour*. In other words, shame (with its focus on the deficient person) becomes functional when it converts itself into guilt (by shifting the focus to inappropriate behaviour). To put it differently, shame is always experienced internally and in the long run motivates us (or should motivate us) to becoming a better person. And it isn't another who needs to determine whether the individual is a better person or not, but it's about the person feeling himself or herself valuable and worthwhile. Using the biopsychosocial model of behaviour in Sect. 3.2, this means shame converted to guilt causes one to change one's behaviour in a restorative way. The improved relation with others eventually translates into positive interactions, leading to changes in the emotional landscape towards a more positive feeling.

This is adaptive, as whichever way one chooses to look at it, individual survival is dependent on common survival—people need each other, they are interdependent. Even in a culture where independence is celebrated, all should implicitly know that without the social background the individual simply wouldn't exist. There may be cultural differences in how people experience and give expression to shame, but this does not lessen its adaptive purpose. Shame motivates people to act. Shame when converted to guilt therefore increases the chances of both individual and collective survival as both the individual and humanity as a whole are more likely to survive when people help one another than when they are in a constant competition or war with one another. Shame helps to draw the boundaries and gives an emotional experience to be able to perceive the boundaries of socially acceptable behaviour. Shame helps to restore relationships. Shame in this sense is the very essence of our social fibre.

Acknowledgements I would like to thank the following people specifically for their contribution to this chapter: Pieter Houtekamer for the figures, Wilma van Heerden for the use of her photographs and Dr. Snežana Stupar for her comments and suggestions.

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