

Anatomy of Emotion: Surprise & Startle - The Resetting Affects

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The affective response of surprise, which in its more intense form is the startle response, we conceive to be a general interrupter to ongoing activity.

Surprise and startle are unique from all other affects since they orient the individual to turn his or her attention away from one thing to another.

The experience of surprise itself is brief and varies from an essentially neutral quality in its milder form to a somewhat negative quality in its more intense form as the startle response.

Surprise and startle have a unique feeling tone, from neutral to negative. Whatever the quality, neutral or negative, these affects are frequently confused with the affect which immediately follows it.

When surprise and startle are activated in us, our eyebrows reflexively lift up, and our eyes blink.

Also, the sides of the forehead wrinkle, and there is an opening of the mouth, which produces the vocalization, "ohhh".

Understanding The Function of the Startle Response

The most noticeable and important characteristic of the startle response is its capacity for interruption of any ongoing activity.

In its most intense form, it is an involuntary massive contraction of the body as a whole, which momentarily renders the individual incapable of either continuing whatever he or she was doing before being startled.

This affect has been studied extensively to support flight safety, and understand pilots' reactions to warning features on aircrafts.

Thus, surprise and startle function primarily as a circuit breaker in the human nervous system.

At the mildest level of neural firing, the affect generated is *interest*; as the neural firing increases, *fear* arises; at the highest level of firing, *startle* occurs.

The Psychological Impact of Surprise and Startle

Both surprise and startle 'clear the deck' - they sweep away whatever previously held our conscious awareness - they 'dis-assemble' whatever was previously being attended to. This happens quickly, allowing for new information to be considered as the new awareness is being formed.

Startle may be activated by the sound of a gunshot; it can also be activated by a gentle tap on the shoulder, especially if the touch seems to be totally unexpected.

Both interest and startle can initiate new tracking or orientation reflexes in us, and the object of our interest can be familiar or brand new.

The Relationship Between Interest and Startle

Our vulnerability to being startled may be increased by anything which exaggerates the degree of novelty of stimulation, or the intensity of the affect of interest or excitement.

The steepness of the rise of excitement response within us, in and of itself, can activate startle.

While startle serves an important "clearing" function, it is not without some disadvantages for further orientation:

The greater the autonomic responsiveness of an individual's startle reaction, the slower the speed of an individual's performance immediately following being startled.

The general relationship between interest and startle is *mutual facilitation* - one tends to activate the other. This is most common noticed when one does a '*double-take*' - revisiting in one's mind an experience that just happened, in a reflexive attempt to process it.

The startle response was studied extensively with a high-speed camera; the experience of startle comes and goes in less than a half second. When we are startled by something, we don't move away from what startles us, and we are equally startled independently from where the source is - in front, behind, to the side of us, etc.

Implications of Our Relationship to Being Surprised or Startled

- *We can learn to accept these affects as mostly neutral experiences in the psyche.*
- *By accepting them as neutral, we can be more responsive to the new ground they place us on.*
- *By doing so, we can venture more towards the new orientation towards our experience, and withdraw or regress less.*
- *In this way, we become more capable of relating and responding towards what is unexpected.*
- *We can then also allow ourselves to become more unexpected in our own relational capacities, making room for novelty and new experiences that can disrupt chronic patterns of sameness that are deadening or disempowering.*