

Instinct, Learning, and Emotion

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We humans often like to think of ourselves as superior beings functioning from our superior intellects (as opposed to the animal species), and certainly not from instinct or emotions. In fact, we had come to look down upon the facets of instinct and emotions as being beneath us, until recently when their presence and value have been recognized and studied. The debate over comparing human and animal instincts has persisted since Darwin's *Origins of Species* in the 1800s. One hundred years later Konrad Lorenz and others believed that instincts were made up of reflex chains responding to the environment. The behaviorists in the early twentieth century accounted for fixed patterns of behavior through subtle modes of conditioning. Evolutionary biologists such as Ernst Mayr established the third and most recent theory of instinct recognizing the role of "genetically determined, species-specific information as well as the environmental conditions required for the implementation of the information." Mayr recognized two kinds of programs in his theory – a more closed program controlled by the species genome, and a more open program allowing for variation in instinctual behaviors (Richards, 2018).

In the last 30 years an "emotional revolution" has occurred and is as powerful as the cognitive revolution of decades prior. Possessing strong instincts is increasingly important the less parenting time a species has and the more dangerous the environment. Some organisms are practically independent from birth relying on instincts because they are mostly on their own from the start. This is in great contrast to humans who have a long period of helplessness and development (Hinshaw, 2010). It has been observed that species need "triggers" to unleash instinctual behaviors, such as witnessing those behaviors in parents, but do humans have similar instincts?

Academically, it has been thought that humans have few instincts. These are not to be confused with infant reflexes, such as rooting, suckling and grasping. These behaviors gradually

disappear in toddlerhood. Stronger behaviors that can be considered human instincts are purposeful imitation and the baby's active interest in learning about the world by observation, particularly of human faces. For the most part, humans lack a great number of instinct patterns in favor of long brain development time, and maybe more importantly, the ability to develop flexible behaviors rather than rigid responses fixed at birth. The instincts that do last (imitation and active interest), compared to early infants reflexes which fade away, allow for important later learning and may indicate that our minds are made up of many separate instinctive and unconscious modules (Hinshaw, 2010).

Theories about human instincts belong in two camps. "Nativists" believe our minds are complex problem solvers inherently; "Evolutionary" psychologists believe the mind is not general purposed, but an incorporation of "separate, modular, instinctive 'calculators'." To illustrate this, we can point to language which comes so naturally to humans. In the 1950s it was believed that language developed in children through conditioning (B.F. Skinner); Noam Chomsky argued that young children learn language instinctively with minimal input from the environment. He believed that human genes were responsible for the development of language, unique to humans (Hinshaw, 2010). More recent research has shown that children actually do learn language through modeling, verbal input and other environmental influences, not only through an innate instinct for language. The debate between inborn capacities and instincts vs. the belief our minds develop through learning is not settled as is the debate over whether our minds are modular vs. general purpose.

Another area of the mind under debate is the reconsideration of emotions. For at least 100 years, emotions were almost considered beneath the use of higher intellectual functioning of the human mind. We prided ourselves on rationality, reasoning and our thinking abilities. Spock-like, purely rational qualities were considered superior on the popular 1970s show Star Trek. But rather than mere obstacles to progress, emotions are now considered "action tendencies," organizing our behaviors and responses to the environment, motivating action and letting others know our frame of mind. It is helpful to us and others to know if we are angry, sad, fearful or happy and inviting. Emotions are more than just our own subjective experience; they signal intention (Hinshaw, 2010).

The face is the main registrar of our emotions. Humans are able to read the most subtle facial expressions, even knowing if a smile is forced or authentic. There are also physiological markers of emotion: heart rate, skin response, and breathing and respiration. And finally, there are behaviors linked to emotions, such as running when scared or laughing when happy. It is not always easy to determine which emotions someone is displaying, however, as these components are only somewhat linked. Researcher Paul Ekman found that displays and recognition of emotions are universal, and not as culturally unique as once believed. His findings were disputed when presented in the 1970s (Hinshaw, 2010).

Emotions are no longer considered irrational or disorganizing, but are now regarded as very organizing factors in our lives. They are considered necessary to human achievement by eliciting goals, needs and motivation. Emotions organize humans in “physiological, behavioral, and cognitive processes to shape our goal-directed behavior.” Without emotions, such as in the case of brain trauma or surgery cases, otherwise intelligent individuals could not make rational decisions. When the power of emotions is missing, action seems to freeze.

If experiencing emotions is vital to our decision making and goal directed behavior, then regulating emotion must be considered equally important. Emotions can have the tendency to overwhelm rational thought. Unregulated emotions are detrimental to our personal, professional and competitive lives. We can see the effect of emotions in social discourse these days and how large-scale decisions politically and socially are often made on emotional rather than fact-based grounds, a tendency which can have very detrimental consequences. Even if we inherit some of our emotional tendencies or acquire them through temperament, there are a number of methods for consciously regulating emotions in stressful situations such as avoidance, changing the situation, being selective about our attention, self-talk, or suppression (the most deleterious choice). In many of the serious mental disorders, there is great difficulty regulating emotions. Most interesting to note, whether we are reacting based on our instincts, learning or emotions, we cannot function rationally without the use of our emotions (Hinshaw, 2010).

The intersection between instinct and emotion was noted in an article about working with human instinct in the business setting. It stated that our ancestors that survived in the Stone Age always used their “emotional radar” or instinct, and faced with impending disasters or predators, they came to trust their instincts most of all. Therefore, we should be cautious when considering

emotions and instinct to be unnecessary or even detrimental. “That reliance on instinct undoubtedly saved human lives, allowing those who possessed keen instincts to reproduce. So for human beings, no less than for any other animal, emotions are the first screen to all information received” (Nicholson, 1998).

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